MCTC

Marshall Community & Technical College

2009-2010 CATALOG

MCTC

Marshall Community & Technical College

MCTC
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Student's Responsibility

It is the responsibility of the student to be aware of the information in this Catalog. The student also is responsible for keeping informed as additions, deletions and corrections are announced via various school media.

Disclaimer

The provisions of this Catalog do not constitute a contract, expressed or implied, between any applicant or student and Marshall Community & Technical College. The College reserves the right to change any of the provisions, schedules, programs, courses, rules, regulations or fees whenever the College authorities deem it expedient to do so.

Marshall Community & Technical College is accredited by

The Higher Learning Commission,
North Central Association of Colleges and Schools
30 North LaSalle Street, Suite 2400
Chicago, IL 60602
Toll-free: 1-800-621-7440

For additional information or information not covered in this catalog, please contact 1-866-N-ROLLED or (304) 696-6282.

EQUAL OPPORTUNITY/AFFIRMATIVE ACTION:

It is the policy of Marshall Community & Technical College (MCTC) to provide equal opportunities to all prospective and current members of the student body, faculty and staff on the basis of individual qualifications and merit without regard to race, color, sex, religion, age, handicap, national origin or sexual orientation.

This nondiscrimination policy also applies to all programs and activities covered under Title IX, which prohibits sex discrimination in higher education.

MCTC strives to provide educational opportunities for minorities and women that reflect the interest, individual merit and availability of such individuals. The college ensures equality of opportunity and treatment in all areas related to student admissions, instruction, employment, placement accommodations, financial assistance programs and other services.

MCTC also neither affiliates with nor grants recognition to any individual, group or organization having policies that discriminate on the basis of race, sex, religion, age, sexual orientation, handicap, or national origin. Further, the college is committed to the ideals of inclusion of students, faculty and staff and, whenever appropriate, will take affirmative steps to enhance diversity. Information on the implementation of the policy and/or the Title IX Amendment should be addressed to: Employee Development, Marshall Community & Technical College, One John Marshall Drive, Huntington, West Virginia 25755 or call (304) 696-3787.

ACADEMIC CALENDAR 2009-2010

Fall Semester 2009

August 17, Monday - August 21, Friday. . . . . Registration/Schedule Adjustment
August 21, Friday, 9 a.m. . . . . Residence Halls Open for Freshmen
August 24, Monday, 8 a.m.. . . . . .First Day of Classes
August 24, Monday - August 28, Friday . . . . . .Late Registration and Add/Drop (Schedule Adjustment)
August 28, Friday. . . . . Last Day to Add Classes (Withdrawals Only After This Date)
August 31, Monday . . . . . .“W” Withdrawal Period Begins
September 7, Monday . . . . . .Labor Day Holiday – College Closed
September 18, Friday . . . . . Application for December Graduation Due in Director of Student Services Office
September 25, Friday. . . . . .Last Day to Drop 1st 8 Weeks Courses
October 13, Tuesday . . . . . .Mid-Semester, 1st 8 Weeks Courses End
October 14, Wednesday. . . . . .2nd 8 Weeks Courses Begin
October 19, Monday, Noon . . . . . .Deadline for Submitting Freshmen Mid Term Grades
October 26, Monday. . . . . .Schedule appointments with advisors for advance registration (students with mandatory holds only)
October 30, Friday. . . . . .Last Day to Drop a Full Semester Individual Course
November 2, Monday . . . . . .Recommended Date to Apply for May 2010 Graduation
November 2, Monday - December 8, Tuesday . . . . . .Complete Withdrawals Only
November 9, Monday - November 20, Friday . . . . . .Advance Registration for Spring Semester (for Currently Enrolled Students)
November 13, Friday. . . . . .Last Day to Drop 2nd 8 Weeks Courses
November 21, Saturday, Noon . . . . . .Residence Halls Close
November 23, Monday - December 22, Tuesday. . . . . .Advance Registration for Spring Semester (Open to All Admitted/Re-Admitted Students)
November 23, Monday - November 28, Saturday. . . . . .Thanksgiving/Fall Break - Classes Dismissed
November 26, Thursday. . . . . .Thanksgiving Holiday – MCTC Closed
November 27, Friday. . . . . .Holiday – MCTC Closed
November 29, Sunday, Noon . . . . . .Residence Halls Open
November 30, Monday. . . . . .Classes Resume
December 2, Wednesday - December 8, Tuesday. . . . . .“Dead Week”
December 8, Tuesday. . . . . .Last Class Day and Last Day to Completely Withdraw for Fall Semester
December 9, Wednesday. . . . . .Study Day - Exams for Wednesday Classes 3 p.m. and After Will Be Held
December 10, Thursday. . . . . Exam Day
December 11, Friday. . . . . .Exam Day
December 12, Saturday. . . . . .Exam Day for Saturday Classes (and some common finals)
December 14, Monday. . . . . Exam Day
December 15, Tuesday. . . . . .Exam Day - Fall Semester Closes
December 16, Wednesday, Noon . . . . . .Residence Halls Close
December 17, Thursday, Noon. . . . . .Deadline for Submitting Final Set of Grades
December 23, Wednesday - January 1, 2010, Friday. . . . . .MCTC Closed

ACADEMIC CALENDAR 2009-2010

Second Semester 2010

January 4, 2010, Monday. . . . . .Offices Open
January 4, Monday - January 8, Friday . . . . . .Registration/Schedule Adjustment
January 10, Sunday, 9 a.m. . . . . .Residence Halls Open
January 11, Monday. . . . . .First Day of Classes
January 11, Monday - January 15, Friday . . . . . .Late Registration and Add/Drop (Schedule Adjustment)
January 15, Friday . . . . . .Last Day to Add Classes (Withdrawals Only After This Date)
January 18, Monday . . . . . .Martin Luther King, Jr. Holiday – MCTC Closed
January 19, Tuesday . . . . . ."W" Withdrawal Period Begins
February 5, Friday . . . . . .Application for May Graduation Due in Director of Student Services Office
February 12, Friday . . . . . .Last Day to Drop 1st 8 Weeks Courses
March 3, Wednesday . . . . . .Mid-Semester, 1st 8 Weeks Courses End
March 4, Thursday . . . . . .2nd 8 Weeks Courses Begin
March 8, Monday, Noon . . . . . .Deadline for Submitting Freshmen Mid-Term Grades
March 19, Friday . . . . . .Last Day to Drop a Full Semester Individual Course
March 20, Saturday, Noon . . . . . .Residence Halls Close
March 21, Sunday - March 28, Sunday . . . . . .Spring Break - Classes Dismissed
March 22, Monday - April 30, Friday. . . . . .Complete Withdrawals Only
March 28, Sunday, Noon. . . . . .Residence Halls Open
March 29, Monday . . . . . .Classes Resume
March 29, Monday . . . . . .Schedule appointment with advisor for advance registration
(Required for students who have mandatory advising holds)
March 29, Monday - April 2, Friday . . . . . .Advance Registration For Summer Session
(for Currently Enrolled Students)
April 5, Monday . . . . . .Recommended Date to Apply for December 2010 Graduation
April 5, Monday . . . . . .Advance Registration for Summer Session
(Open to All Admitted/Re-admitted Students)
April 7, Wednesday . . . . . .Assessment Day - Classes Cancelled for College-Wide Assessment Activities.
(Evening Classes 4:00 p.m. or Later Will Meet)
April 9, Friday . . . . . .Last Day to Drop 2nd 8 Weeks Courses
April 12, Monday - April 23, Friday . . . . . .Advance Registration Fall Semester
(for Currently Enrolled Students)
April 26, Monday - April 30, Friday . . . . . ."Dead Week"
April 26, Monday -- May 7, Friday . . . . . .Advance Registration for Fall Semester
(Open to All Admitted/Re-Admitted Students Except First-Time Fall Undergraduates)
April 30, Friday . . . . . .Last Class Day and Last Day to Completely Withdraw For Spring Semester
May 1, Saturday . . . . . .Exam Day for Saturday Classes (and some common finals)
May 3, Monday. . . . . .Exam Day
May 4, Tuesday . . . . . .Exam Day
May 5, Wednesday. . . . . .Study Day - Exams for Wednesday Classes 3 p.m. and After Will Be Held
May 6, Thursday . . . . . .Exam Day
May 7, Friday . . . . . .Exam Day
May 8, Saturday, Noon . . . . . .Residence Halls Close
May 10, Monday. . . . . .Registration/Schedule Adjustment Resumes
(for Fall Semester for All Students Except First-Time Fall Undergraduates)
May 11, Tuesday, Noon . . . . . .Deadline for Submitting Final Set of Grades

ADMINISTRATION AND STAFF

PRESIDENT'S OFFICE

President
Keith J. Cotroneo
Ed.D. – Adult Education, University of Georgia
Ed.S. – Counseling and Human Development, University of Georgia
M.Ed. – Student Personnel for Higher Education, University of Georgia
B.S. – Business Administration, Auburn University

Executive Secretary to the President
Latrenda Sanders
A.A.S. – Occupational Development, Marshall University

HUMAN RESOURCES AND EMPLOYEE DEVELOPMENT

Director, Human Resources and Employee Development
Stephanie A. Neal
R.B.A. – Marshall University
A.A.S. – Computer Technology, Marshall University

Human Resources Assistant III
Mary Beth Dickerson

BUSINESS SERVICES

Vice President and Chief Financial Officer
Herbert J. Karlet
M.B.A. – Lynchburg College
B.B.A. – Accounting, Marshall University

Office Administrator
Angela Casey-Bradshaw
B.B.A. – Business Administration, Marshall University

Controller
Christie Chaffin
B.B.A. – Accounting, Marshall University

Accountant Senior
Averill Burris
B.B.A. – Accounting, Marshall University

Accounting Assistant II – Accounts Payable
Katherine Chaffin
B.A. – Political Science, Ohio University

Accounting Assistant II – Accounts Receivable
Carey Dunfee
B.B.A. – Accounting, Marshall University

Accountant – Payroll
Charlotte D. Preston
B.B.A. – Finance, Marshall University

Chief Information Officer
Terri Tomblin-Byrd
M.S. – Technology Management, Marshall University
B.S. – Computer Science, Marshall University

Manager, Computer Operations
Tommie Kelley
M.S. – Adult and Technical Education, Marshall University
R.B.A. – Marshall University
A.A.S. – Computer Technology, Marshall University
A.A.S. – Industrial Supervision and Management, Marshall University

CONTINUING AND CORPORATION EDUCATION

Dean, Continuing and Corporate Education
Steven L. Brown
Ed.D. – Leadership Studies, Marshall University
Ed.S. – Marshall University
M.S. – Management, Troy State University
B.S. – Criminal Justice, Troy State University

Administrative Associate
Sherri Sowards

Director, Continuing and Community Education
Erika Bailey
B.S. – Business Administration, University of Phoenix

Director, Corporate Education
Sara E. Chapman
M.S. – Adult and Technical Education, Marshall University
R.B.A. – Marshall University
A.A.S. – Banking and Finance, Marshall University

Director, Inland Waterways Academy
John Whiteley
M.S. – Adult and Technical Education, Marshall University
B.S. – Marine Transportation, U.S. Merchant Marine Academy

Program Coordinator, Senior
Cory Payne
M.S. – Adult and Technical Education, Marshall University
R.B.A. – Marshall University
A.A.S. – Board of Governors

ADMINISTRATION AND STAFF

Program Assistant II
Tara Williams

Program Manager
Martha Pierson
A.A.S. – Office Management – West Virginia State College

Culinary Operations Manager
Teresa L. Blankenship
A.A.S. – Hospitality Management, MCTC
A.A.S. – Culinary Arts, MCTC
Certified Corporate Event Planner

Executive Chef/Instructor
Donald W. Dodson
A.A.S. – Hospitality/Culinary Arts, MCTC
ACF Certified Chef De Cuisine,
American Culinary Federation

Banquet Chef
Christopher M. Bugher
A.A.S. – Hospitality, Culinary and Hotel Management, MCTC

STUDENT SERVICES

Dean of Student Services
Billie H. Brooks
M.S. – Adult and Technical Education, Marshall University
R.B.A. – Marshall University
A.A.S. – Computer Technology, MCTC

Administrative Associate
Gina M. Broce
R.B.A. – Marshall University
A.B. – Legal Secretary,
Huntington Junior College of Business
A.B. – Medical Secretary,
Huntington Junior College of Business

Director, Admissions and Recruitment
Sonja G. Cantrell
M.S. – Adult and Technical Education, Marshall University
R.B.A. – Marshall University

Student Recruiter
Natasha Robinson
M.S. – Adult and Technical Education, Marshall University
B.B.A. – Marketing, Marshall University

Admissions Assistant III
Robyn Messenger
M.A. – Pre-School Special Needs, Marshall University
B.A. – Elementary Education, Marshall University

Financial Aid Manager
Lisa D. Penix
M.S. – Adult and Technical Education, Marshall University
R.B.A. – Marshall University

Financial Aid Counselor
Julie Leach
B.A. – Business Communications,
Morehead State University

Registrar
Martha M. Barnett
B.A. – Music Education, University of Southern Mississippi
A.A. – Hinds Community College

Records Assistant III
Jennifer J. Kennedy
M.A. – Latin, Marshall University
B.A. – Basic Humanities, Marshall University

Educational/ADA Counselor
Nicole D. Wilson
M.A. – Counseling and Rehabilitation, Marshall University
B.A. – Psychology, Ohio University

Academic Advisor
Stacey Arthur
M.S. – Adult and Technical Education, Marshall University
R.B.A. – Marshall University
A.A.S. – Medical Assisting, MCTC

LIBERAL ARTS AND HUMAN SERVICES

Executive Dean, Dean of Liberal Arts and Human Services
Carol Perry
M.B.A. – Marshall University
B.S. – Mathematics, Marshall University

Administrative Assistant Senior
Monica Shafer
A.A.S. – Computer Technology, MCTC

Administrative Associate
Barbara Holland
B.A. – Marshall University

ALLIED HEALTH AND LIFE SCIENCES

Dean, Allied Health & Life Sciences
Jean Chappell
M.S. – Biomedical Science,
Marshall University School of Medicine
B.S. – Zoology
ASCP Certified MT

ADMINISTRATION AND STAFF

Administrative Associate
Karen S. Johnson

Administrative Secretary Senior
Nikki L. Kopsolias
A.A.S. – Administrative Assistant Technology, MCTC

BUSINESS AND INFORMATION TECHNOLOGY

Dean, Business and Information Technology
Sandra Walker
Ed.D. – Education Administration, South Carolina State University
Ed.S. – Education Administration, The Citadel
M.Ed. – Business Education, University of North Carolina – Greensboro
B.S. – Business Education, Campbell University

Administrative Associate
Lisa Beckett
A.A.S. – Administrative Assistant Technology, MCTC

Administrative Secretary Senior
Patricia Young

FACULTY

Banks, Shirley
Professor, General Studies
Ed.D. – Curriculum/Instruction, University of S. Carolina
M.A. – Sociology, University of Mississippi
B.A. – Social Studies, South Carolina State College

Battle, Mildred
Associate Professor, Mathematics and Science
M.S. – Adult Education, Marshall University
B.S. – Chemistry, North Carolina Central University

Bays, Edward
Assistant professor, Paramedic Science
B.S. – Business, West Virginia Wesleyan College
Paramedic Certification, MCTC
Instructor Certification, ACLS, PALS< BCLS; EMS-C; NREMT-P, WV EMT – Paramedic, KY EMT – Paramedic

Brewer, Leigh-Ann
Assistant Professor, American Sign Language
M.A. – Education, Marshall University
B.A. – Elementary Education and Early Childhood Education, Marshall University

Brown, Richard
Associate Professor, Business Technology
M.B.A. – Finance, Marshall University
B.A. – Sociology, West Virginia Wesleyan

Carlton, Travis
Associate Professor, Physical Therapist Assistant Program
M.S. – Health Administration, Southwest Baptist University
B.S. – Psychology, Southwest Missouri State University
Licensed PTA, State of West Virginia

Cliber, James
Instructor, Mathematics
M.A. – Mathematics, University of Nebraska-Lincoln
Med. – Educational Psychology, University of Oklahoma
B.A. – Sociology, University of Maryland
A.A.S. – Instructor Technology, Community of the AF

Copley, Kimberly
Instructor, Information Technology
R.B.A. – Marshall University
A.A.S. – Information Technology, MCTC

Cross, Isabel
Assistant Professor, Culinary Arts
M.A. – Communication Studies, Marshall University
B.F.A. – Literature, Universidad Catolica Andres Bello

Dennison, Betty
Associate Professor, Communication and English
M.A. – English, Northwest Missouri State University
B.A. – English, Lynchburg College

Dick, Sara
Assistant Professor, Early Childhood Education
M.A. – Special Education, Marshall University
B.A. – Elementary and Early Childhood Education, Marshall University

Donathan, Donna
Professor, Legal Assistant program
Ed.S. – Counseling, Marshall University
M.S. – Adult Education, Marshall University
B.A. – Counseling Psychology, Marshall University

Doyle, Gerald
Associate Professor, Management Technology
M.B.A. – Marketing, Marshall University
B.A. – Business/Science Education, Marshall University

ADMINISTRATION AND STAFF

Fleischman, William J.
Assistant Professor, Anatomy and Physiology
M.S. – Kinesiology, Indiana University
B.A. – Physical Education and Sociology Education, Bethel College

Hussell, Heather
Associate Professor, Legal Assistant Program
J.D. – West Virginia University College of Law
B.A. – West Virginia University

Jones, Randall
Professor, Information Technology
Ed.D. – Higher Education Administration & Information Systems, West Virginia University
M.S. – Information Systems, West Virginia College of Graduate Studies
B.B.A. – Management Information Systems & Business Education, James Madison University
A.B.A. – Business Administration, Central Virginia Community College
A.E.T. – Electronics, West Virginia Institute of Technology

Keatley, Marjorie
Director Assessment and Institutional Effectiveness/
Professor, Administrative Assistant Technology
Ed.D. – Vocational/Technical Education, Virginia Tech
M.A. – Business Education, Marshall University
B.A. – Business Education, 7 – 12, Marshall University

Lilly, Rosalia
Assistant Professor, Mathematics
M.A. – Secondary Education, Marshall University
B.S. – Secondary Education, Ohio University

Locher, Jack
Instructor, Information Technology
B.S. – Liberal Arts/Sociology, Columbia College
A.A. – Criminology, University of the State of New York

Lockwood, Jenka
Associate Professor, Mathematics
M.S. – Adult and Technical Education, Marshall University
B.S. – Education, Marshall University

Lowe, Nedra
Professor, English and Communication
M.A. – English, Marshall University
A.B. – English, West Liberty State College

McComas, Michael
Assistant professor, Mathematics
M.A.T. – Marshall University
West Virginia Department of Education, Teaching Certificate, Mathematics 5 – 12
R.B.A. – Marshall University

Meadows, Pamela D.
Instructor, Clinical Assistant/Point of Care Technician
B.S. – Clinical Laboratory Science, Marshall University
A.S. – Medical Laboratory Technician, Marshall University
ASCP Certified MT

Merritt-Damron, Denecia
Professor, Information Technology
M.S. – Vocational Technical Education, Marshall University
B.A. – Business Education and Language Arts, Marshall University

Nisky, Kimberly
Assistant Professor, Communications
M.A. – Communication Studies, Marshall University
B.A. – Communication Studies, Marshall University

Pack, Heather
Assistant Professor, Mathematics
M.A. – Math, Marshall University
B.S. – Math, Marshall University

Parker, B. Eliot
Assistant Professor, English
M.A. – Twentieth Century American Literature, Marshall University
B.A. – Secondary Education, Marshall University

Patnaik, Sumeeta
Assistant Professor, College Transition Program
M.A. – Political Science, Marshall University
M.A. – English, Marshall University
B.A. – English, Concord College

Peyton, Susan
Instructor, English
B.A. – Journalism and English, Marshall University

Preece, Kimberly
Associate Professor, Information Technology
M.B.A. – Business Management, Marshall University
B.B.A. – Computer Science, Marshall University

Redd, William
Professor, Legal Assistant Program
J.D. – North Carolina Central University
B.A. – Political Science, Marshall University

Romero, Heidi N.
Assistant Professor, Pharmacology
Doctor of Pharmacy, University of Kentucky
B.F.A. – Ohio Wesleyan University

Scragg, Rhonda
Professor, Information Technology
M.A. – Adult Education, Marshall University
B.A. – Mathematics (Comp), Marshall University

Skean, Wylma
Professor, Administrative Assistant Technology
C.A.S. – Vocational Technical Education, Marshall University
M.A. – Business Education, Marshall University
B.A. – Business Principles 7 – 12, Marshall University

Smith, Janet
Associate Professor, Medical Assistant and Health Information Technology
M.S. – Adult & Technical Education, Marshall University
B.S. – Health Record Administration, York College of PA

Smith, Patrick S.
Instructor, Information Technology
R.B.A. – Marshall University
A.A.S. – Information Technology, Marshall University

Stover, Kristen L.
Assistant Professor, Psychology
M.A. – Psychology, Marshall University
B.A. – Psychology, Marshall University

Stringer, Drema
Assistant Professor, English
M.A. – English, Marshall University
B.A. – English, Marshall University

Swolsky, Adam C.
Assistant Professor, Anatomy and Physiology
Doctor of Chiropractic, Palmer College of Chiropractic
B.S. – Biology, University of Cincinnati

Terry, Kelly
Assistant Professor, Physical Therapist Assistant Program
Ph.D. – Physical Therapy, Slippery Rock University
M.S. – Health and Physical Education/Athletic Training, Marshall University
B.A. – Athletic Training, Marshall University

Triplett, Theodore L.
Instructor, Manufacturing
M.S. – Mining Engineering, Virginia Tech
B.S. – Mining Engineering, Virginia Tech

Vinson, Linda
Associate Professor, English and Communication
M.A. – Advertising/Public Relations, University of Alabama
B.A. – Journalism, University of Alabama

White, Rebecca
Director, Academic Skills Center/Assistant Professor, Academic Skills Review
M.A. – Early Childhood Education, Marshall University
B.A. – Early Childhood Education, Marshall University

Wilkinson, Linda S.
Professor, Communications and English
M.A. – Speech, West Virginia University
B.A. – Speech and English, Marshall University

Worley, Ronald A.
Assistant Professor, English
M.A. – English, Marshall University
B.A. – Psychology, Marshall University
A.A. – Ashland Community & Technical College

MISSION AND GOALS

MISSION

Marshall Community & Technical College is a public institution. The college provides open access to education and training for a diverse population and assists students and employers to meet regional and global workforce demands. The college fulfills its educational mission through:

- developmental education
- career and technical education
- university transfer education
- general education
- professional and personal development
- lifelong learning
- workforce training programs and services

VISION

Marshall Community & Technical College will be a regional leader in learning-centered and future-focused education.

VALUES

- Higher education contributes to the welfare of individuals and to the improvement of society.
- All persons deserve the opportunity for the kind and level of education that will contribute positively to their lives and careers.
- MCTC provides programs to meet the varied educational and workforce development needs of its students and the community it serves.
- Quality is a goal for every effort of the college, and continuous improvement is expected and supported.
- Individuals who complete programs of the college have the right to expect to have the skills to enter a career, to enter the next level of education for which they have prepared, or to have enhanced the skills required for their work.
- Persons admitted to a higher education institution have the right to expect assistance in developing the skills required for success.
- All individuals have worth and are deserving of being treated with consideration, decency, and respect.

GOALS

- Enhance student success through a learning-centered organization.
- Establish, maintain, and expand partnerships with education, business, industry, and agencies.
- Develop a skilled workforce to support the economic development of the community, region, and state.
- Measure outcomes and embrace a culture of continuous improvement to increase the value of the educational experience.

PHILOSOPHY AND HISTORY

PHILOSOPHY

Marshall Community & Technical College faculty are committed to providing students the skills and flexibility necessary to live successfully in a changing world and to prosper in a global society.

The general education philosophy at Marshall Community & Technical College is to provide students with intellectual and critical skills for lifelong learning needed to meet the challenges of a diversified world. Students will be prepared to: communicate effectively using written skills; communicate effectively using oral skills; apply mathematics and basic scientific concepts for problem-solving activities; utilize technology competently; use critical-thinking skills; develop an awareness of ethical behavior; recognize the richness of diversity.

HISTORY

Marshall Community College was founded in 1975 as a separate college within Marshall University to better serve students by bringing together many of the two-year associate degree programs under one college.

Classes began in the fall of 1975 with a wide range of programs. From the outset, the college's mission has been to provide two-year associate degrees as well as provide continuing education and community service.

In 1991, the college name was changed to Marshall Community & Technical College to better reflect the technical nature of many of the programs offered.

On October 30, 2003, Marshall Community & Technical College became accredited as an independent institution by The Higher Learning Commission, North Central Association of Colleges and Schools.

CREED

Inspired by the example of John Marshall, we the students, faculty, staff, and administrators of Marshall Community & Technical College, pledge to pursue the development of our intellects and the expansion of knowledge, and to devote ourselves to defending individual rights and exercising civic responsibility. We strive to exemplify in our own lives the core values of John Marshall's character: independence, initiative, achievement, ethical integrity, and commitment to community through association and service. As MCTC, we form a community that promotes educational goals and that allows individuals maximum opportunity to pursue those goals.

We are:

- an educational community in which all members work together to promote and strengthen teaching and learning;
- an open community uncompromisingly protecting freedom of thought, belief and expression;
- a civil community treating all individuals and groups with consideration, decency, and respect, and expressing disagreements in rational ways;
- a responsible community accepting obligations and following behavioral guidelines designed to support the common good;
- a safe community respecting each other's rights, privacy and property;
- a well community respecting and promoting physical and emotional health;
- an ethical community reflecting honesty, integrity and fairness in both academic and extracurricular activities;
- a pluralistic community celebrating and learning from our diversity;
- a socially conscious community acting as citizens of the world and seeking to contribute to the betterment of people and their environments;
- a judicious community remaining alert to the threats posed by hatred, intolerance and other injustices and ever-prepared to correct them.

GOVERNING BODIES/ADVISORY COMMITTEES

WEST VIRGINIA COUNCIL FOR COMMUNITY AND TECHNICAL COLLEGE EDUCATION

Membership List
Robert Lee Brown, Chairman
Clarence Pennington, Vice Chairman
Stanley Hopkins, Ex Officio
Greg Smith, Secretary
Jerry Berry
Kelley Goes
John Panza
Ralph Kelly
Mary G. McKinley
Nelson B. Robinson
Greg Wooten

MARSHALL COMMUNITY & TECHNICAL COLLEGE BOARD OF GOVERNORS

Board of Governors
Susan Richardson, Chairman
Jason Moses, Vice Chairman
Ruth Cline, Secretary
Bob Bailey
Mark Bugher
Donna Donathan (faculty)
Mark George
Jim Hale
Mike Herron
Jeffrey Porter
Monica Shafer (classified staff)
Criss Nance (student)

MARSHALL COMMUNITY & TECHNICAL COLLEGE ADVISORY COMMITTEES

Marshall Community & Technical College seeks the advice and counsel of residents of the community, employers, and educational representatives through the establishment of advisory committees. Advisory committee members serve as advocates of necessary change to maintain current, quality career programs and supporting services for students in order to facilitate and enhance graduate employability in the surrounding community.

MARSHALL COMMUNITY & TECHNICAL COLLEGE HAS THE FOLLOWING ADVISORY COMMITTEES FOR THE 2009-2010 ACADEMIC YEAR:

Administrative Assistant Technology
American Sign Language
Banking and Finance
Biomedical Instrumentation Technology
Bioscience
Board of Governors' Degree
Clinical Assistant
Dental Assistant
Dental Lab Technology
Early Childhood Education
Electronics Technology
General/Transfer Studies
Health Information Technology
Hospitality Management/Culinary Arts
Information Technology
Interior Design
Legal Assisting
Machinist Technology
Management Technology
Manufacturing Engineering Technology
Maritime Training
Massage Therapy
Medical Assistant
Occupational Development
Paramedic Science
Pharmacy Technician
Physical Therapist Assistant
Police Science and Law Enforcement
Public Library Technology
Public Safety
Radiologic Technology
Respiratory Therapy Technology
Technical Studies
Workforce Development

ACCREDITATION

Marshall Community & Technical College is accredited as an independent community college by The Higher Learning Commission of the North Central Association of Colleges and Schools. Copies of Marshall Community & Technical College's regional and specialized accreditation reports, certifications, and licenses are available for review in the President's office.

North Central Association of Colleges and Schools
The Higher Learning Commission
30 N. LaSalle St., Suite 2400
Chicago, IL 60602-2504
P: (toll free) (800) 621-7440 or (312) 263-0456
www.ncahigherlearningcommission.org

The following programs have additional specialized accreditation as indicated:

Administrative Assistant Technology, Banking and Finance, Management Technology
Association of Collegiate Business Schools and Programs
7007 College Blvd., Suite 420
Overland Park, KS 66211
P: (913) 339-9356
www.acbsp.org

Health Information Technology
Commission on Accreditation for Health Informatics and Information Management Education
233 N. Michigan Ave., Suite 2150
Chicago, IL 60601-5800
P: (312) 233-1129
www.cahiim.org

Legal Assistant
American Bar Association
321 N. Clark St.
Chicago, IL 60610
P: (312) 988-5000
w3.abanet.org

Machinist Technology
The National Institute for Metalworking Skills – NIMS
10565 Fairfax Blvd., Suite 203
Fairfax, VA 22030
P: (703) 352-4971
www.nims-skills.org

Massage Therapy
Commission on Massage Therapy
1007 Church St., Suite 302
Evanston, IL 60201
P: (847) 869-5039
www.comta.org

Medical Assistant
Commission on Accreditation of Allied Health Education Programs
1361 Park St.
Clearwater, FL 33756
P: (727) 210-2350
www.caahep/org

Physical Therapist Assistant
American Physical Therapy Association
1111 N. Fairfax St.
Alexandria, VA 22314-1488
P: (toll free) (800) 999-2782 or (703) 684-2782
www.apta.org

Radiologic Technology
Joint Review Committee on Education and Radiologic Technology
20 N. Wacker Dr., Suite 2850
Chicago, IL 60606-3182
P: (312) 704-5300
www.jrcert.org

Respiratory Therapy
Committee on Accreditation for Respiratory Care
1248 Harwood Rd.
Bedford, TX 76021-4244
P: (817) 354-8519
www.coarc.com

GENERAL POLICIES

COPYRIGHT COMPLIANCE

Marshall Community & Technical College complies with U.S. copyright law, which prohibits unauthorized duplication and use of copyrighted materials, including written, audio-visual, and computer software materials.

EQUAL OPPORTUNITY / AFFIRMATIVE ACTION POLICY STATEMENT

It is the policy of Marshall Community & Technical College to provide equal opportunities to all prospective and current members of the student body, faculty, and staff on the basis of individual qualifications and merit without regard to race, color, sex, religion, age, handicap, national origin, or sexual orientation

This nondiscrimination policy also applies to all programs and activities covered under Title IX, which prohibits sex discrimination in higher education.

Marshall Community & Technical College strives to provide educational opportunities for minorities and women that reflect the interest, individual merit, and availability of such individuals. The college ensures equality of opportunity and treatment in all areas related to student admissions, instruction, employment, placement accommodations, financial assistance programs, and other services.

Marshall Community & Technical College also neither affiliates with nor grants recognition to any individual, group, or organization having policies that discriminate on the basis of race, sex, religion, age, sexual orientation, handicap, or national origin. Further, the college is committed to the ideals of inclusion of students, faculty and staff and, whenever appropriate, will take affirmative steps to enhance diversity. Information on the implementation of the policy and/or the Title IX Amendment should be addressed to: Director of Office of Human Resources and Employee Development, Room 128, MCTC, One John Marshall Drive. Huntington, West Virginia 25755. The phone number is (304) 696-4325.

LIABILITY POLICY

Marshall Community & Technical College, as a state agency, cannot assume responsibility for loss of or damage to the personal property of students. Furthermore, the college cannot assume responsibility for personal injury to students.

FAMILY EDUCATION RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

FERPA gives parents certain rights with respect to their children's education records. These rights transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. Students to whom the rights have transferred are "eligible students."

- Parents or eligible students have the right to inspect and review the student's education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for parents or eligible students to review the records. Schools may charge a fee for copies.
- Parents or eligible students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the parent or eligible student then has the right to a formal hearing. After the hearing, if the school still decides to amend the record, the parent or eligible student has the right to place a statement with the record setting forth his or her view about the contested information.
- Generally, schools must have written permission from the parent or eligible student in order to release any information from a student's education record. However, FERPA, allows schools to disclose those records, without consent, to the following parties under the following conditions (34 CFR 99.31):
  - School officials with legitimate educational interest;
  - Other schools to which a student is transferring;
  - Specified officials for audit or evaluation purposes;
  - Appropriate parties in connection with financial aid to a student;
  - Organizations conducting certain studies for or on behalf of the school;
  - Accrediting organizations;
  - To comply with a judicial order or lawfully issued subpoena;
  - Appropriate officials in cases of health and safety emergencies; and
  - State and local authorities, within a juvenile justice system, pursuant to specific State law.

Schools may disclose, without consent, "directory" information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, schools must tell parents and eligible

students about directory information and allow parents and eligible students a reasonable amount of time to request that the school not disclose directory information about them. Schools must notify parents and eligible students annually of their rights under FERPA. The actual means of notification (special letter, inclusion in a PTA bulletin, student handbook, or newspaper article) is left to the discretion of each school.

For additional information or technical assistance, you may call (202) 260-3887 (voice). Individuals who use TDD may call the Federal Information Relay Service at (800) 877-8339. Or you may contact us at the following address:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5920

SEXUAL HARASSMENT POLICY

Sexual Harassment, a form of sex discrimination, is illegal and against the policies of the college. Sexual Harassment involves:

- making unwelcome sexual advances or requests for sexual favors or other verbal or physical conduct of a sexual nature a condition of employment or education, or
- making submission to or rejection of such conduct the basis for employment or educational decisions, or
- creating an intimidating, offensive or hostile environment by such conduct.

Anyone who believes he or she has been the subject of Sexual Harassment should report the alleged conduct immediately to an appropriate College representative or directly to the Office of Human Resources.

WEATHER-RELATED AND/OR EMERGENCY CLOSINGS AND DELAYS

Huntington Campus

Generally it is Marshall Community & Technical College's procedure to maintain its normal schedule, even when conditions are inclement. However, this is not always possible. In those instances when it is necessary to alter the schedule in response to weather conditions, every effort will be made to notify all those affected, students, faculty, staff and the general public – as expeditiously and as comprehensively as possible in the following ways:

- Television stations in Huntington and Charleston will be notified.
- Radio stations in Huntington and Charleston will be asked to announce the delay or closing.
- Time permitting, newspapers in Huntington and Charleston will be notified. Often, however, decisions must be made after the deadlines of newspapers.
- MCTC will communicate the specific details of the College closing through the Huntington campus AUDIX system (304) 696-6245 as well as the College response number (304) 696-3170.

Definitions

College Closed: All classes suspended and offices closed.
Classes Canceled: All classes suspended; offices open.
Delay Code A: Means delay in the opening of classes BUT no delay in the opening of offices. Delays will usually be in the range of one to two hours.
Delay Code B: Means a delay in the opening of classes AND a delay in the opening of offices. Delays will usually be in the range of one to two hours.

Class operation under delays: Under both categories of delay, students should go to the class that would begin at the stated delay time or the class that would have convened within 30 minutes of the stated delay time. A two-hour delay means that classes that begin at 10:00 a.m. begin on time. Classes that begin at 9:30 a.m. meet at 10:00 a.m. and continue for the remaining period of that class.

Clarification

Information about closing, cancellations, or delays will ordinarily be disseminated to area radio and television stations. These outlets may, however, publish the College's notification incorrectly. Therefore, the authoritatively correct statement of the College's condition is stipulated to be the message on the AUDIX system (304) 696-6245 or the message available at the College response number (304) 696-3170.

Students taking classes at off campus sites, such as Career Centers, must contact the Career Center. MCTC will adhere to their inclimate weather schedule.

STUDENT RIGHTS & RESPONSIBILITIES

MCTC supports freedom of speech, freedom of inquiry, freedom to dissent, freedom to assemble, and freedom to demonstrate in peaceful fashion. The College also supports the right of students to pursue their legitimate educational goals without interference. Accordingly, the College encourages and expects its community to conduct itself in accordance with the general society's standards of polite behavior, the College's specific rules and regulations, and all applicable laws of the local, state and federal government.

I: ADMISSIONS AND ACCESS

The admissions policy of MCTC is consistent with the purpose and role of an open-door higher education institution. Admission standards are based on the capacity of students to contribute to or profit from the particular educational programs they desire. The College makes clear to students the characteristics and expectations which it considers relevant to success in a chosen program. Admission to the College is not granted or denied on the basis of ethnic origin, race, religion, sex, sexual orientation, age, nationality, political belief or affiliation. Thus, within the limits of its facilities, MCTC is open to all students who are qualified according to its admission standards.

II: THE CLASSROOM ENVIRONMENT

Free and open discussion, speculation, and investigation are basic to the academic process. Student performance is evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic matters.

Students are free to take reasonable exception to views presented in any course of study and to reserve judgment on matters of opinion, but they are responsible for learning the content of any course of study in which they are enrolled.

Students do have orderly procedures to follow in order to be protected against prejudiced or capricious academic evaluation. They, at the same time, are responsible for maintaining standards of academic performance established for each course in which they are enrolled.

An instructor may exclude from his/her course, any student who, in the instructor's judgment, has seriously impaired the ability of the class to achieve the objectives of the course, or who is guilty of offensive conduct toward the instructor or other members of the class. The student may appeal the instructor's action to the division dean who will, when necessary, detail the full grievance procedure to the student. (Copies of this procedure are available from division deans and other administrative offices.)

III: STUDENT RECORDS

Students have a right to expect that institutional records will be safeguarded; that no information will be made available to unauthorized persons; that no information will be misused by College authorities; and information not pertinent to the students' role in the College not be recorded. Students will be given the opportunity to review the contents of their respective files upon written request and have the right to reply to any derogatory material. These responses become part of their files. Procedures for the retention of student files have been established that will safeguard the confidence in which they should be held.

IV: STUDENT ORGANIZATIONS

It is recognized that students bring to the campus a variety of interests previously acquired and develop many new interests as members of the academic community. They are free to organize and join associations to promote their common interests.

Affiliation with an extramural organization does not of itself disqualify a student organization from institutional recognition.

Campus advisors are required for student organizations. Full details on campus procedures for clubs or organizations are available from the Dean of Student Services.

It must be remembered that the College will disallow any association that threatens its openness, receptivity to free inquiry, and the overall learning process.

V: STUDENT PUBLICATIONS

Student publications and the student press are valuable aids in establishing and maintaining an atmosphere of free and responsible discussion and of intellectual exploration on the campus.

Editors and managers of student publications will be free to develop editorial policies, and will be protected from arbitrary suspension and removal because of campus or public disapproval of their publication's policy or content. At the same time, editorial freedom of student editors and managers entails responsibilities to be governed by the canons of responsible journalism, such as the avoidance of libelous statements, indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo. Student publications will be free of censorship and advance approval of copy. However, the College does retain the right to have copy reviewed by an advisor before going to

print for the purpose of helping student editors and managers in staying within the limits of responsible journalism.

In the event that a College administrator, the advisor, the Student Government, or the student publication staff members recommend the removal of a student editor, due process (to involve a review committee and the right to appeal) will be adhered to and managed by the Dean of Student Services or his/her designee.

VI: FREEDOM OF INQUIRY AND EXPRESSION

Students and student organizations are free to examine and discuss all questions of interest to them, and to express opinions publicly and privately. They are free to support causes by orderly means which do not disrupt the regular and essential operation of the institution. At the same time, it will be made clear to the academic and the larger community that in their public expressions or demonstrations students or student organizations speak only for themselves.

Students are allowed to invite and to hear any person of their own choosing. Routine procedures required by the College before a guest speaker is invited to appear on campus are designed only to ensure that there is orderly scheduling of facilities and adequate preparation for the event, and that the occasion is conducted in a manner appropriate to an academic community. Institutional control of campus facilities will not be used as a device of censorship. It should be made clear to the academic and larger community that student sponsorship of guest speakers does not necessarily imply approval or endorsement of the views expressed, either by the sponsoring group or the College.

No student or authorized visitor is subject to any limitation or penalty solely for the expression of his /her views or for having assembled with others for such purpose. Peaceful picketing and other orderly demonstrations in public areas will not be interfered with. Public areas include sidewalks and parking lots but not areas such as lobbies, corridors, and rooms in buildings.

In order to afford maximum protection to the participants and to the institutional community, students or student groups will give the College administration reasonable advance notice of any planned assembly, picketing, or demonstration upon the grounds of the institution, its proposed locale, and intended purpose.

The peddling of newspapers or handbills which convey a point of view in the public areas of the College campus is protected by the First Amendment. Harassment or intimidation of members of the campus community by persons distributing literature supporting points of view or causes may require the removal of those persons from College property. It is recommended that any student group planning to distribute literature notify the College administration of its plans so that the administration is aware of the group activities. (If an off-campus group wishes to come on campus and distribute literature supporting a point of view or cause, it shall seek permission to do so from the College administration.)

VII: INSTITUTIONAL AUTHORITY AND CIVIL PENALTIES

When activities of students result in violation of law or when students feel that their civil rights have been violated, institutional officials will be prepared to inform students of sources of legal counsel and may offer other assistance. Institutional authority will never be used merely to duplicate the function of general laws. Only where the institution's interests as an academic community are distinct and clearly involved will the special authority of the institution be asserted. The student who incidentally violates institutional regulations in the course of his/her off-campus activity, such as those relating to class attendance, will be subject to no greater penalty than would normally be imposed. Institutional action will be independent of community pressure.

The College will take no action affecting a student's status while his/her case is before the courts and awaiting final determination unless such action is necessary to protect the safety of the College community. If the student is convicted, the College will attempt to support the intent of the courts. If the court places a student on probation, the College will cooperate with the court to determine the most desirable course of action for the student, the College, and society. Normally when an individual is returned to society, the intent of the court is to allow him/her to return to the position held before commission of the offense for which he/she was convicted. Thus, the College will normally allow such a student to remain in the institution or return to it unless there is evidence that his/her presence imposes a clear danger to other students, faculty, staff or guests of the College or to the orderly operation of the College.

VIII: STUDENT PROPERTY

Students and their property are not subject to search and seizure by College authorities except by officials designated by the College President, only when the immediate safety of the College community is threatened, and in accordance with state and federal laws.

IX: STUDENT BEHAVIOR

The following prohibitions pertaining to student conduct are considered essential to the educational mission and community life of the College. In general, College jurisdiction and disciplinary sanctions will be applied to incidents and conduct, which occur on the College campus or at College-sponsored events or activities. However, jurisdiction and disciplinary sanctions may also be applied at the discretion of the College to conduct that occurs off campus and which adversely affects the College, the College community or the interests and mission of the College. Visitors on campus are also expected to abide by the prohibitions pertaining to student conduct and by all local, state and federal laws and ordinances. Visitors failing to do so may be asked to leave campus and may be declared Persona Non Grata.

- Behavior which disrupts the learning environment.
- Use, possession, and/or distribution of weapons, firearms, firecrackers, explosives and/or chemicals.
- Use or possession of illegal or controlled drugs and/or alcohol.
- Gambling.
- Abusive and/or disorderly behavior.
- Deliberate destruction and/or abuse and misuse of College property or facilities.
- Theft from an individual, organization or agency, and/or division of the College.
- Assault and battery, threats of violence, and/or intimidation.
- Written, verbal, sexual and/or physical intimidation or harassment.
- Violations of the College's Acceptable Use policy for computer access and use.
- Failure to comply with reasonable requests of a College representative.
- Any conduct which violates the laws of the United States, the State of West Virginia, Cabell County, and/or the City of Huntington.

The above list of prohibitions is not a full listing of unacceptable behavior in a College community. Other unacceptable behavior may also result in disciplinary action from the Dean of Student Services or his/her designee.

Academic dishonesty (such as cheating and plagiarism) or classroom behavior considered detrimental to the teaching-learning process will be addressed by the College's academic offices. A full statement on student academic dishonesty appears in the current College Catalog.

X: VIOLATION PENALTIES

The penalties for violation of student behavior and College conduct requirements are restitution, disciplinary warning, disciplinary probation, suspension and expulsion. These penalties do not preclude any legal action that may be taken as a result of violations of federal, state, county and/or city laws.

- **Restitution** - In cases of damage, destruction, defacement, or theft of property, restitution is generally required.

- **Disciplinary Warning** - An official notice to the student that his or her behavior is in violation of the Student Code of Conduct or other College regulation. Further violations will result in more severe disciplinary action. A student under disciplinary warning must meet those conduct requirements that may be determined in his/her case.

- **Disciplinary Probation** - A disciplinary sanction informing the individual that his or her behavior is in serious violation of the Student Code of Conduct or other College regulation. During the probationary period, the student may be barred from participating in extracurricular activities, denied the use of certain College facilities, and/or assigned special duties. Any further violation during the probationary period may result in more severe action up to and including expulsion from the College.

- **Suspension** - A mandatory separation from the College for a specific period of time. Students who are suspended are barred from enrolling at or visiting MCTC during the period of the suspension. Students who are suspended from the College and who continue to violate the Student Code of Conduct are subject to further disciplinary action (expulsion) during the period of the suspension at the discretion of the College.

- **Expulsion** - Termination of student status at MCTC with no promise of future readmission. Students who are expelled are permanently barred from enrolling at or visiting MCTC and from attending College-sponsored events. Violations of the Student Code of Conduct and other non-academic regulations are brought before the Dean of Student Services (DSS) for review. The DSS will investigate the situation and make a decision regarding disciplinary action based on the outcome of the investigation. If the student wishes to appeal the DSS's decision, see student grievance procedure.

In some instances, a student's behavior may be so egregious that immediate removal of the student from campus may be necessary to protect the campus environment. In the event that a student is immediately removed from campus, the DSS will conduct an investigation as soon as possible after removal of the student from campus.

XI: STUDENT GRIEVANCE PROCEDURE

PROCEDURE

The purpose of the grievance procedure is to provide students at the College a process for resolving any concerns relative to their student rights.

1. Informal Resolution Process

(a) The student may first discuss his/her grievance with the individual against whom the grievance exists.

(b) If the grievance is not resolved between the individuals involved, the student may begin step two. This action must be taken within thirty days of the original incident.

2. Initiation of Formal Academic or Social Grievance

Step One - If the grievance is not resolved informally, the student shall formally and in writing present the grievance to the appropriate Dean. If the grievance is directed against a Dean, the grievance shall be presented to that individual's supervisor. Notice of formal grievance must be given no later than during the subsequent academic term in which the incident occurred. Grievance notifications outside such time frames are subject to dismissal at the discretion of the Dean.

Step Two - Upon receipt of a formal grievance, the Dean shall request that the President convene a grievance appeal committee.

Step Three - The College President will appoint a committee of neutral and objective individuals from the following representative groups: administrators, faculty members and students. The College President will designate a chair for the committee from among the appointees.

Step Four - Each committee member will receive a copy of the written grievance with the supporting statements and evidence. After receiving the written grievance, the committee will hold a hearing and both the grievant and the individual against whom the grievance is directed will be given the opportunity to present and be heard. The grievant may have one advisor at the hearing; however, the advisor may not speak during the meeting. The Chair shall be responsible for informing the appropriate Dean (or appropriate supervisor) of it's recommendation and the reasons for the recommendation, in writing.

Step Five - The Dean (or appropriate supervisor) shall consider the recommendation and render a written ruling on the matter. The Dean (or appropriate supervisor) shall inform both parties or the decision in writing by certified mail. The notification of the decision concludes the grievance process.

NOTE: The grievant may withdraw his/her grievance at any phase of the process provided that all concerned parties are notified in writing.

Effective date: November 25, 2009

ACADEMIC DISHONESTY POLICY

As described in the MCTC Creed, Marshall Community & Technical College, is an "Ethical Community reflecting honesty, integrity and fairness in both academic and extracurricular activities."

Academic Dishonesty is something that will not be tolerated as these actions are fundamentally opposed to "assuring the integrity of the curriculum through the maintenance of rigorous standards and high expectations for student learning and performance" as described in the Marshall University's Statement of Philosophy.

A student, by voluntarily accepting admission to the institution or enrolling in a class or course of study offered by Marshall Community & Technical College accepts the academic requirements and criteria of the institution. It is the student's responsibility to be aware of policies regulating academic conduct, including the definitions of academic dishonesty, the possible sanctions and the appeal process.

For the purposes of this policy, an academic exercise is defined as any assignment, whether graded or ungraded, that is given in an academic course or must be completed toward the completion of degree or certification requirements. This includes, but is not limited to: Exams, quizzes, papers, oral presentations, data gathering and analysis; practicums and creative work of any kind.

Definitions of Academic Dishonesty: Each instructor may modify the general definition of academic dishonesty to fit the immediate academic needs within that particular course of study, provided the instructor defines, in writing and preferably in the course syllabus, the details of any departure from the general definition.

Cheating: Any action which if known to the instructor in the course of study would be prohibited. This includes:

- The unauthorized use of any materials, notes, sources of information, study aids or tools during an academic exercise.
- The unauthorized assistance of a person other than the course instructor during an academic exercise.
- The unauthorized viewing of another person's work during an academic exercise.
- The unauthorized securing of all or any part of assignments or examinations, in advance of submission by the instructor.

Fabrication/Falsification: The unauthorized invention or alteration of any information, citation, data or means of verification in an academic exercise, official correspondence or a university record.

Plagiarism: Submitting as one's own work or creation any material or an idea wholly or in part created by another. This includes:
- Oral, written and graphical material
- Both published and unpublished work

It is the student's responsibility to clearly distinguish his/her own work from that created by others. This includes the proper use of quotation marks, paraphrase and the citation of the original source. Students are responsible for both intentional and unintentional acts of plagiarism.

Bribes/Favors/Threats: Attempting to unfairly influence a course grade or the satisfaction of degree requirements through any of these actions is prohibited.

Complicity: Helping or attempting to help someone commit an act of academic dishonesty.

Sanctions: Sanctions for academic dishonesty may be imposed by the instructor of the course, the Associate Dean, or the Academic Dean's designee. Sanctions for academic dishonesty may be imposed even if a student withdraws from an individual course or from Marshall entirely.

The instructor may impose the following sanctions:

- A lower or failing project/paper/test grade
- A lower final grade
- Failure of the course
- Exclusion from further participation in the class (including laboratories or clinical experiences)

The following sanctions may be recommended by the instructor but will need to be imposed by the Associate Dean, Academic Dean's designee or the Office of Academic Affairs:

- Exclusion from an academic program
- Academic probation for up to 1 year
- Academic suspension for up to 1 year
- Dismissal from MCTC

In those cases in which the offense is particularly flagrant or where there are other aggravating circumstances, additional, non-academic, sanctions may be pursued through the Office of Judicial Affairs.

A student will be informed in writing by the instructor or responsible office, of any charges and subsequent sanctions imposed for academic dishonesty. (See "Reporting" below.) Written notification of academic dishonesty charges (and the inclusion of confirmed charges/sanctions in a student's records) is designed to inform a student of the potential repercussions of repeat offenses and his/her rights of appeal.

If a student believes that charges of academic dishonesty have been erroneously levied, he/she should appeal such charges in accordance with the process outlined below (See "Appeals Process.")

Sanctions for repeated academic dishonesty offenses will be imposed by the appropriate Dean or dean's designee.

- A student's record of academic dishonesty offenses will be maintained throughout his/her enrollment at MCTC, and the period of time between offenses may have no impact on sanctions for repeated offenses.
- A student with a second academic dishonesty offense during his/her enrollment at MCTC will be academically suspended for a period of time not to exceed one academic year (to include summer terms).
- A student with a third academic dishonesty offense during his/her enrollment at MCTC will be dismissed from MCTC.

Reporting: Any time an accusation of academic dishonesty is made, and a sanction imposed (or a sanction will be imposed with the submission of final grades), a notice should be sent to the Office of the Dean of Student Services within ten (10) days of the accusation.

Notice of an act of academic dishonesty will be reported to the Office of Student Services through the completion of an "Academic Dishonesty Report Form" (described below).

The "Academy Dishonesty Report Form" will include:
Instructor's Name
Course Information (Term, Number, Section)
Student's Name
Student's Marshall Community & Technical College Identification Number
Brief Description of the Charge
Date of Accusation
Brief Description of the Sanction

Instructors are encouraged to give a copy of the "Academic Dishonesty Report Form" to a student accused of an offense. However, within ten (10) days of receipt of the "Academic Dishonesty Report Form" the appropriate dean will inform the student of the accusations made, the sanctions prescribed, the repercussions of repeat offenses, and his/her rights of appeal.

A copy of the report will go into the student's college file.

Any subsequent actions taken (additional sanctions imposed, the lessening of sanctions, the withdrawal of accusations, the results of appeals, etc.) should be reported to the Office of the Dean of Student Services within ten (10) days of the action.

Recording: The Office of the Dean of Student Services will maintain a file of academic dishonesty incidents.

Appeals for Academic Dishonesty: See Student grievance procedures, page 19

ACADEMIC FORGIVENESS POLICY

The academic forgiveness policy allows forgiveness of D and F grades for purposes of calculating the grade-point average (GPA) required for graduation and does not apply to GPA calculation for special academic recognition (such as graduating with honors) or to meet requirements for professional certification that may be within the province of licensure boards, external agencies, or the West Virginia Board of Education. This policy is designed to assist returning students who left college in poor academic standing. The policy may be implemented provided the following conditions are satisfied:

1. The student must not have been enrolled in college on a full-time basis during any semester or term in the last four consecutive years.

2. Only grades for courses taken at least four years prior to the request for academic forgiveness may be disregarded for graduation grade-point average computation.

3. To be eligible to apply for academic forgiveness, a student must be currently admitted to Marshall Community & Technical College and enrolled.

4. Grades disregarded for graduation GPA computation remain on the student's permanent transcript.

5. The student applies for academic forgiveness by submitting an application for "Academic Forgiveness" to the MCTC Dean of Student Services. The application for academic forgiveness can be accepted, modified, or rejected upon submission. Upon request, a justification will be provided for any changes made to the application.

6. If the student applies for academic forgiveness, he/she must be aware that this is a MCTC procedure that may not be recognized by other institutions of higher education in which the student may transfer.

To qualify for graduation, the student must satisfy all graduation requirements in effect at the time of acceptance into the program and successfully complete a minimum of 12 semester hours of college-level work at MCTC with a minimum GPA of 2.00 on all work attempted after acceptance.

ACADEMIC PROBATION AND SUSPENSION POLICY

Academic Probation: All students whose Overall or MCTC GPA drops below a 2.0 will be placed on Academic Probation. Academic Probation is a period of restricted enrollment for a student. All probation students are subject to the following restrictions.

Students on probation must meet with the Dean of Student Services or a designated advisor before registering for classes to develop an Academic Improvement Plan to achieve good academic standing each term. This plan will be binding on the student.

Students on probation may take a maximum of 14 hours and should repeat courses under the D/F Repeat Rule to reduce deficiency points.

Students on probation must earn a 2.0 GPA or higher during every semester they are on probation. Failure to achieve a 2.0 semester GPA or higher while on Academic Probation will result in suspension.

- Students on probation are not allowed to register by MyMCTC.
- Students on probation must participate in the college's Retention Program.
- Other requirements may be imposed in the Academic Improvement Plan. The student is returned to Academic Good Standing when his or her MCTC and Overall GPA are 2.0 or higher.

Academic Suspension: is defined as a period in which a student can not enroll in courses at Marshall Community & Technical College. A student who has pre-registered and is subsequently suspended will have his/her registration automatically canceled.

Students who earn less than a 2.0 semester GPA while on Academic Probation or who accumulate or exceed the Quality Point Deficit for their GPA Hours (see Table One) will be suspended for one regular semester. (The summer terms do not count as a term of suspension.)

Table One – Suspension Quality Point Deficit

GPA Hours	0-25	26-57	58-89	90+
Quality Point Deficit	20	15	12	9

When a student returns to Marshall Community & Technical College after any suspension, the student will be placed on probation and must follow all of the requirements of his/her Academic Improvement Plan. Failure to meet all of the requirements of the Academic Improvement Plan or exceeding the Quality Point Deficits listed in Table One will result in suspension. **A second suspension will be for a period of one calendar year. Third and subsequent suspensions will be for a period of two calendar years each.**

Reinstatement after a second or subsequent suspension is only by written petition to the Dean of Student Services. The petition must be in writing and provide evidence that the student can meet the requirements of his/her Academic Improvement Plan.

Computing Quality Point Deficit
To compute Quality Point Deficit, both Overall and Marshall, use the following formula:

GPA Hours times 2 = X;
X – Quality Points = Quality Point Deficit.

For example, a student with 48 GPA hours and 90 Quality points would have this academic profile:
48 X 2 = 96
96 – 90 = 6 (a quality point deficit of 6)

Students can use their Overall GPA information to figure their Overall Quality Point Deficit and their Marshall Community & Technical College GPA information to figure out their MCTC Quality Point Deficit.

CLASS ATTENDANCE

It is MCTC's view that each instructor evaluates the importance of student class attendance. In the course syllabus, the instructor must provide his/her requirements on class attendance, make-up work, and related matters. If a student is absent from class, the absence can be handled by an arrangement between the student and the instructor. The instructor must honor the college excused absence listed by this requirement and allow the student an opportunity to catch up/make up work missed. This requirement excludes those academic endeavors that require the completion of a certain number of clock hours, as in clinical experiences, practice or internships. For those courses, the maximum number of absences will be determined by the program coordinator. This requirement does not supersede program accreditation requirements.

Definitions of Excused Absences
Excused absences fall into five categories:

A. College-Sponsored Activities:

1. Academic activities including, but not limited to, per-

forming arts, debate and individual events, honors classes, ROTC, and division functions.

2. Other college activities, including student government and student organizations. The activity must have a clear educational mission and be closely linked to academic pursuits or to other official college functions.

B. Student Illness or Critical Illness/Death in the Immediate Family*

**"Immediate Family" is defined as a spouse/life partner, child, parent, legal guardian, sibling, grandparent or grandchild*.

1. Student Illness or Injury: Absences will be excused only for illnesses or injuries that prohibit students from participating in class.

2. Critical Illness of Immediate Family Member: Absenc es will be excused if the student documents that he or she had to provide needed care and/or support for a critically ill immediate family member.

3. Death of an Immediate Family Member

C. Short-Term Military Obligation:
This is defined as absence as the result of military orders for a short-term period. Note: Students subject to federal activation are covered by a separate policy. Please see the catalog for this policy.

D. Jury Duty or Subpoena for Court Appearance:
This applies to absences that are a result of official requests from a court of law.

E. Religious Holidays:
This applies to major religious holidays.

ACADEMIC STANDING

Students receive official notification of academic standing via the web at the end of the regular semester or summer session. Academic standing is defined by one of three categories:

- **Good Standing:** A student is in good standing when his/her cumulative MCTC and Overall GPA (includes MCTC grades and any grades earned at other institution(s) is at least 2.0.

- **Academic Probation:** A student is placed on academic probation at the end of any regular semester or summer session when his/her cumulative MCTC or Overall GPA (may include grades earned at other institutions) is less than 2.0. The student will be notified by mail of probation status and that a hold has been placed on his/her registration activity. The student cannot register or make schedule changes on the web. All of his/her registration activity must take place in person with an advisor in the MCTC Student Services Advising Center. Probation students also are limited in the number of credit hours they can take each semester and may be subject to financial aid.

- **Academic Suspension:** If a student exceeds the maximum quality point deficits in the cumulative MCTC or overall GPA (may include grades earned at other institutions) for his/her GPA hours at the end of any given semester, he/she will be suspended for the following semester. The Dean of Student Services notifies suspended students by mail that a suspension hold has been placed on their registration status and that their registration for the following semester has been cancelled excluding summer terms, when the suspension is for one semester.

Assessment: MCTC has an ongoing assessment program that is rooted in the College's mission. The assessment process provides the college and programs with information regarding institutional effectiveness. All segments of the College community - faculty, staff, administration and students – are to be actively involved in this process.

Assessment of Student Academic Achievement: Of central importance is the assessment of student learning in the major and in general education.

MCTC is committed to providing quality educational opportunities and experiences for every student. While grades are one measure of student performance, grades do not provide the institution with the necessary data to determine areas of the curriculum that are strong and areas that need improvement. Therefore, it is expected that students attending MCTC will participate in periodic assessment activities as directed by the college.

Auditing Courses: Audit students enroll only for purpose of refreshing or acquainting themselves with the material offered in the course. You can audit a course when there is space available in the class and the instructor authorizes your audit status. Audit students receive no academic credit. Enrollment for audit is limited to the regular registration period for the semester or term. The student must enroll for the course as an Audit and must pay fees in the same way and at the same tuition rate as students enrolling for credit. Faculty members who wish to audit courses must secure approval of the instructor of the course and must enroll in the regular way.

The instructor of the course will determine attendance and any other special requirements for audit students. It is the instructor's responsibility to discuss the requirements of the course with the auditor.

Students cannot change a registration from credit to audit or audit to credit after the close of the Schedule Adjustment Period at the beginning of a semester or summer term.

Catalog of Record: The catalog of record is the academic catalog that is in effect at the time a student declares a major. It identifies the graduation requirements students must meet to earn the degree. Once a student declares a major, the catalog of record remains the same, unless there is a break of enrollment of at least one year. The student has 6 years in which to complete the degree under the catalog. If within that 6 year period the student changes majors the catalog at the time of the change takes effect. The student then has 6 years in which to complete the degree under the new catalog. If a student exceeds the 6-year period, the catalog of record is the one in effect at the date of graduation. The student must meet the graduation requirements in this catalog. Students can substitute courses no longer offered with the permission of their Academic Division Dean.

Classification of Students
Classification of students is based on the number of college level credit hours earned as shown:

CLASSIFICATION	SEMESTER HOURS
Freshman	0-25
Sophomore	26+

COURSE NUMBERS	LEVEL
000-099	developmental (or pre-college)
100-199	freshman level
200-299	sophomore level

College-Level Examination Program (CLEP)
The College Level Examination Program (CLEP) and DANTES exams enable students who can demonstrate knowledge and/or proficiency in certain fields to reduce the cost in time and money for pursuing a college education by successfully completing tests for credit. Intensive reading in a particular field, on-the-job experience, or adult education may prepare a student to earn college credit through tests. This would reduce the total amount of course work needed to complete degree programs. Scores on the test may also validate educational experience obtained at a non-accredited institution or through noncredit college courses. Credit earned through exams does not automatically satisfy specific academic requirements. Since divisions have different curriculum requirements and may use the scores in different ways, students should consult first with their Academic Dean on how the examinations would be used. For available CLEP/DANTES exams contact: Cory Payne, Latta's Building; phone: 399-1279; email: payne28@mctc.edu.

Commencement/Graduation Dates
MCTC observes one Commencement Exercise and three graduation dates during an academic year. The official graduation dates are:

- Last day of final examinations for the fall semester.
- Day of Commencement for the spring semester.
- Last day of the Summer term.

Students will not be graduated on any dates other than those noted above. Students who are graduated at the end of the summer term or at the end of the fall term of an academic year are invited to join the spring graduates in the Commencement Exercises.

Credit by Examination
Credit by examination is available for certain courses. The awarding of credit is based upon the evaluation of specific criteria established by appropriate faculty. Proficiency examinations for credit will be given at various scheduled times.

To be eligible to take an exam, a student must be fully admitted. If not enrolled full-time, the student must pay a non-refundable fee of $30 per proficiency exam attempted. Any other fees associated with this process is the responsibility of the student. Credit only (not a grade) will be recorded on the transcript for successful completion; no transcript record will be recorded for failure.

Credit for Knowledge, Life, Work Experience or Skills
Portfolio college credit will only be awarded for learning experiences that have occurred after high school. Students are eligible to apply for portfolio credit two years after high school graduation or two years after their high school class has graduated. To earn this credit the student must provide evidence of possessing equivalent knowledge, theory or skills demonstrated by the presentation of a portfolio, certificates, or diplomas and acceptance of these credentials by MCTC.

SOURCES OF EQUIVALENT COLLEGE CREDIT

Credit Hour
Generally a student earns one credit for each 15 hours of class contact. Classes normally meet 45 hours in a semester for 3 units of credit. Students should plan on two hours of preparation/study for each in-class hour. Laboratory classes require two or three hours of lab per week for each semester hour of credit.

D/F Repeat Rule (Repeating Courses)
Students have the opportunity to repeat any course in which they earned a grade of D or F during the period up to and including the semester in which they attempt their 60th hour. Any course taken during the semester or term in which the 60th attempted hour is taken also may be repeated under this rule. The repeat of a course taken within the first 60 attempted hours may be made anytime before graduation. The 60th attempted hour sets the limit for courses which may be repeated and not the time by which the course must be repeated. A course may be repeated only once under this rule, and the repeat must be done prior to completion of the degree.

The second grade will replace the first in determining the student's GPA, hours attempted, and hours credited. The second grade is the grade that counts (excluding a W), even if it is a lower grade than the original one. The original grade remains on the transcript, but it is noted as a repeated course. Whenever a student plans to repeat a course under the D/F Repeat Rule, he/she must complete the D/F repeat form early in the semester in which the course is repeated. Forms are available in the Office of Student Services.

The D/F Repeat Rule applies only to graduation requirements and not to requirements for professional certification which may be within the province of licensure boards, external agencies, or the West Virginia Board of Education.

In other words, any course a student takes prior to attempting the 60th credit hour for which a grade of D/F was received can be repeated at any time prior to graduation. If a student originally took a course while a sophomore (26-57 hours), received a D, and is still an undergraduate student, then the course can be repeated.

The second grade replaces the first grade – not the better of the two grades. If the second grade is an F, then the F replaces the original grade of D.

If a student withdraws from a course for which he/she is D/F repeating, it does not count as the second grade – the course can be taken again for a final grade. Another D/F repeat form will need to be completed in the Office of Student Services to replace the form for the withdrawn course.

Dean's List
Students registering for 12 or more hours of courses for which they are receiving letter grades, and who, at the end of a semester, have a grade point average of 3.3 or above are considered honors students. The names of these students make up the "Dean's List."

Degree Program
A degree program is a unified series of courses or learning experiences composed of at least 60 required credit hours that lead to an Associate of Arts, Associate of Science, or Associate of Applied Science degree.

Developmental Courses
Developmental courses are credit/no-credit (CR/NC) recorded on the transcript counted as earned hours, and used to determine a student's classification. Credits earned for these courses cannot be used to satisfy graduation requirements.

Online Courses
These are courses a student can take totally through the Internet. Online courses are versions of classes already offered on the MCTC campus. When a student completes an online class, he/she receives the same credit as the on campus class.

To register for online courses, a student must follow the same procedures as other courses at MCTC by visiting the Marshall Community & Technical College Advising Center or by using myMCTC.

To register for online courses, a student must possess basic computer literacy skills. System requirements can be found at mctc.edu. More information can be found about online courses at mctc.edu

English Composition Requirement / English Qualifying Examination (EQE)
The following guidelines are required for students to fulfill the English Composition Requirement for graduation from MCTC:

- A grade of C or better in ENL111 is required.
- Students who receive a D or F in ENL 111 will need to repeat the course in order to earn the grade of C.

Grade Information and Regulations
MCTC uses a 4.00 scale to express grade point averages. The Grade Point Average (GPA) is a numeric value calculated by dividing total quality points by total credit hours for courses in which a student earned a letter grade.

Grade Quality		Points Per Semester Hour
A	(superior)	4
B	(above average)	3
C	(average)	2
D	(below average)	1
F	(failure)	0
I	(incomplete)	0
CR	(credit)	0

NC (no credit)	0
W (withdrawn)	0
AU (audit)	0

The GPA computed for graduation purposes is based on all of a student's work except:

- Courses with grades of W, I, CR/NC, and AU
- Courses repeated under the D/F Repeat Policy

Graduation
Students must apply for graduation at the beginning of the semester or term in which they intend to complete graduation requirements, which include the following:

- Minimum of 60 credit hours excluding developmental hours
- Have an overall GPA of 2.0 or higher
- Have a MCTC GPA of 2.0 of higher
- Have earned a C or better in ENL 111 or equivalent
- Have a minimum of 12 college-level credit hours earned at MCTC
- Complete any program specific additional requirements

The due dates for each graduation are listed in the current Schedule of Courses and also in the Academic Calendar section of the Marshall Community & Technical College catalog as well as on the Web.

To apply, students must first go to the MCTC cashier in the lower level of the CTC building and pay the graduation fee. Next, students bring a copy of the receipt to the Student Services Advising Center and complete the Graduation Application .

Honors Graduation (Associate Degree)
Associate degree candidates for graduation who have achieved special distinction in academic work are recognized at Commencement. Their honor status is printed on their diploma. Honor status is determined by this scale for the final cumulative grade point average:

- With High Honors – 3.70 and above
- With Honors – 3.30 to 3.69

*Honor calculations are not rounded.

Honors Eligibility for Transfer Students (Associate Degree)

A transfer student must have earned at least 36 hours of work at Marshall Community & Technical College, 32 of which must be applicable to an Associate degree program and must have attained honors for all work attempted at MCTC.

Honors recognition at the May Commencement is based on academic standing prior to the spring term. If a student achieves honors standing as a result of the May grade run, the Dean of Student Services will report the proper honors level on the final graduation list. Honors will be posted on the degree record.

Independent Study
Independent studies are tutorials, independent readings, research and other individualized activities designed to meet the special needs of students within their major. Independent studies are offered only at the discretion of the Division Dean.

Internship/Practicum
An internship is a supervised work experience completed by graduating students at a site appropriate to the student's declared major. The student must have the approval and permission of the Program Coordinator in order to register for the course. A faculty member will serve as an internship coordinator and resource person for the interns and will make site visits and provide career counseling. The internship class also may include on-campus training seminars, workshops, and presentations by in-the-field professionals. Although the internship experience varies across divisions of the college, the outcome for each is to provide opportunities for the graduating students to apply knowledge and skills gained in their coursework to a real-world environment.

Laboratory Courses
Lab courses supplement classroom courses. They are organized activities involving the observation and verification of experiments and experimental techniques. Laboratory courses require two or three hours of lab per week for each semester hour of credit.

Major
A major is a program of study requiring at least 24 semester credits for completion. All courses in the major must be taken for a grade except internships/practica.

One-Year Certificate Program
A one-year certificate program is a unified series of courses composed of a minimum 30 credit hours.

Residence Requirements
"In residence" means to be enrolled in MCTC courses. Marshall Community & Technical College Associate Degree and Certificate program students must earn at least 12 hours credit in residence. These 12 hours must be for regular course work and must be applicable to the degree program. The Board of Governors' Occupational Development and

Technical Studies Associate in Applied Science degree requires a minimum of three hours of Marshall Community & Technical College college-level coursework.

Semester Load
To make normal progress toward graduation, students should complete approximately 32 to 34 semester hours during a calendar year, which includes Fall, Spring and Summer terms. If students want to take 19 or more credit hours during Fall or Spring term, or 7 or more hours during a regular Summer term, they must obtain permission from the Marshall Community & Technical College Dean of Student Services.

Special Topics
Special Topics are courses that can be offered twice without formal committee approval.

Syllabus
During the first two weeks of semester classes (3 days of summer term), instructors must provide each student a copy of the course requirements which includes these items:

- A description of the general course content
- Course learning outcomes
- Approximate dates for major projects and exams
- Grading policy/assessment methods
- Attendance policy

The syllabus is not a legal contract.

Transcript
Each Official Transcript costs $6. The Office of the Registrar usually will process transcript requests within 24 to 48 hours of receipt. The request may take longer to process if it is received at the close of a semester or summer term. Students who default in the payment of any MCTC financial obligation or have other obligations to MCTC forfeit their right to a transcript until their obligations are resolved. Transcript requests should be sent directly to the Office of Student Services in the form of a letter, fax, or on the Transcript Request Form available in the office, or on the web. Students must sign their requests. Students can obtain unofficial transcripts at:
www.mctc.edu/myMCTC, in Office of Student Services.

STUDENT RESOURCES & SERVICES

ACADEMIC SKILLS CENTER

A highly qualified staff of instructors offer tutorial assistance to individuals and study groups in the Academic Skills Center (ASC), located in MCTC building Room 138. The ASC operates as a learning center. In addition to working with teachers, students have computers and videos to assist in building academic skills and in refreshing existing skills.

In order to use the ASC's services, a student must register for one credit hour of an ASC course.

ASC operating hours during the fall and spring semesters are: 8 a.m.-8 p.m. Monday through Thursday; 8 a.m.-3 p.m. Friday; 9 a.m.-1 p.m. Saturday; and 3 to 7 p.m. Sunday. Summer school hours vary.

ADVISING CENTER

Professional counselors in the Academic Advising Center assist students in becoming well-informed and effective decision makers and planners who will gain maximum benefit from their educational experiences. Located in the lower level of MCTC building, the Academic Advising Center is a source of information on the wide array of available academic programs and on academic policies and procedures. The Advising Center serves MCTC students with a particular focus on addressing the specific needs of freshmen, transfer students, students changing majors and students on academic probation or suspension.

The center's advisors can assist students with:

- assessment of abilities, interests and goals;
- coordination of career planning and academic progress;
- information about courses, programs, occupations, and the world of work;
- referrals to other campus resources;
- course scheduling and registration workshops.

An Advising Center advisor must approve registration for classes until students have completed 24 hours of 100-level graded courses with at least a 2.0 GPA. Students can get their counselor's name or advising help by calling (304) 696-6282 or visiting the Advising Center, Community & Technical College building B-4. The Advising Center is open Monday from 7:30 a.m. to 5 p.m, Tuesday-Thursday from 7:30 a.m. to 7 p.m. and Friday from 7:30 a.m. to 4 p.m.

COMMUTER MEAL PLAN

For students who live off-campus, a commuter meal plan is available through the Marshall University Campus ID office on the lower level of Memorial Student Center.

For more information, call (304) 696-6843, or stop by the Marshall University Campus ID office, Memorial Student Center BW9.

DISABLED STUDENT SERVICES

The Disabled Student Services program works with students to individualize the type and level of services needed for educational and physical accessibility to achieve their academic goals and maintain as much independence as possible. Services are available to all students, whether they are full-time or part-time. Students are required to provide documentation of disabilities.

For more information, call Nicole Wilson at (304) 696-3876, or visit The Office of Student Services in the lower level of the MCTC building.

HEALTH INSURANCE

Students are strongly encouraged to invest in a health care insurance policy. The college has identified a student accident and sickness group insurance plan that provides low-cost coverage for hospital and medical expenses. The plan provides annual coverage on campus and away from the college.

For more information, log onto www.gmsouthwest.com

HIGHER EDUCATION FOR LEARNING PROBLEMS (H.E.L.P.)

The Higher Education for Learning Problems (H.E.L.P.) program provides students with Learning Disabilities and/or Attention Deficit Disorder (ADD) the rights they are guaranteed under Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. The program offers: assessment to determine LD and/or ADD; tutoring by graduate assistants in coursework, note-taking, study skills, organization and memory improvement; remediation, by learning disabilities specialists, in reading, math, spelling and written language skills; liaison among professors, H.E.L.P. and students; arrangement for accommodation in testing; and counseling for problems with self-esteem and severe test anxiety.

Application to H.E.L.P. must be made separately from application to the college and should be completed no fewer than six months in advance.

For more information, contact Lynne Weston, director, at (304) 696-6317, or stop by Myers Hall on 18th St. between 5th and 6th Aves.

CAMPUS ACTIVITIES

PUBLIC SAFETY DEPARTMENT

Located in the Welcome Center, 1801 5th Ave., the Public Safety Department is directly responsible to Marshall University community and provides all services on an around-the-clock basis. By virtue of West Virginia State law, University Police Officers have the same responsibilities and authority as that of any other law enforcement officers in the state. Uniformed officers provide 24-hour patrol protection to the campus, adjacent University-owned facilities, and parking lots. All emergencies, criminal complaints, general requests for service, and public safety concerns can be reported directly to the Office of Public Safety in person.

The police dispatcher is available 24 hours a day by dialing 64357, 69, or by using one of the emergency/service phones located throughout the campus.

STUDENT HEALTH SERVICES

Student Health service is provided by the Department of Family and Community Medicine, a division of Joan C. Edwards School of Medicine and is open from 8:00 a.m. to 4:00 p.m. Monday through Friday. Summer hours vary. Health services will be provided from the first day to the last day of each fall, spring, and summer semester to full-time students who present current validated identification cards. Part-time students may be required to pay fees for service. Services provided include: diagnosis and treatment by a physician, licensed practitioner or physician's assistant; limited routine laboratory procedure; and injections for allergies (if vaccines and dosage directions are provided by the physician of the patient and approved by the staff).

Student Health Services is located at Marshall Medical Center/Cabell-Huntington Hospital, 1600 Medical Center Drive, Suite 1500; (304) 691-1106.

TUTORING SERVICES

The Academic Skills Center (ASC) brings together academic support services. The center provides students with programs and services to help them succeed in college and beyond. The center offers a supportive atmosphere in which students can obtain individualized tutoring in a variety of subjects as well as help with writing assignments. The ASC staff is always available to answer questions, provide materials and generally guide students to academic success.

MARCHING BAND AND AUXILIARY UNITS

Membership in the Marshall University Marching Band is open to all MCTC students. Credit is offered for participation. The University Band Office is located in Smith Music Hall 146.

MARSHALL ARTISTS SERIES

Marshall Artists Series brings nationally, internationally acclaimed attractions to the campus and the Tri-State Area each year, including major names and experimental acts in disciplines from Broadway, dance, music, comedy, opera, and film. Tickets for most events are free to all full-time on campus students with a validated MCTC I.D. and are available to students three (3) weeks prior to each performance. Full-time students receive one free ticket with valid MCTC I.D. Part-time students receive one half-priced ticket with valid MCTC I.D. Individuals with student tickets will be required to present their MCTC I.D. at the door of the show.

PHI THETA KAPPA

MCTC maintains the Alpha Eta Upsilon Chapter of Phi Theta Kappa, an international honor society for two-year colleges. The chapter recognizes and encourages academic achievement by students and provides opportunities for individual growth and development through honors, leadership, and service programming. To be eligible for membership, students must be enrolled in MCTC; must have completed at least 12 semester hours in coursework applicable to an associate degree; must achieve a grade point average of 3.5 and maintain a grade point average of 3.3; must have achieved academic excellence as judged by the faculty; and must be of good moral character and possess recognized qualities of leadership.

NOTE: Tickets to MU football games, Marshall Artists Series and University Theatre are available free only to students taking at least 12 credit-hours or on campus classes. Online, and off-campus classes credit hours do not apply. Activity and Title IX fees are not charged for off-campus or electronic classes; as a result, students taking these classes are not eligible for free tickets.

GENERAL EDUCATION ASSESSMENT PORTFOLIO

A General Education Assessment Portfolio is a graduation requirement for all MCTC graduates. The portfolio will be a compilation of coursework collected throughout the program of study and submitted as a requirement in the student's capstone course.

Each student will collect examples/samples of coursework from all courses throughout his or her program of study. The portfolio must document the student's mastery of the seven general education learning outcomes. The student will determine the method (either electronic or paper) of collecting assignments/artifacts that best demonstrate each of the following general education learning outcomes:

- communicate effectively using written skills;
- communicate effectively using oral skills;
- apply mathematics and basic scientific concepts for problem-solving activities;
- utilize technology competently;
- use critical-thinking skills;
- develop an awareness of ethical behavior;
- recognize the richness of diversity.

After completion of each assignment/artifact chosen for inclusion, the student will write a short reflection paper indicating:

- which learning outcome is demonstrated;
- how the learning outcome was achieved;
- how competency of the learning outcome will impact his/her future personal and career goals;
- any other comments that are pertinent to demonstrating achievement of the required general education learning outcome.

The completed assignment/artifact and reflection paper will be saved electronically/hardcopy for inclusion in the final portfolio. During the capstone course, the student will be asked to choose the assignments/artifacts and the accompanying reflection papers which best demonstrate the mastery of the general education learning outcomes.

For more information, contact Carol Perry, Executive Dean of General Studies and Dean of Liberal Arts & Human Services, Community College building Room 129; phone, 304-696-3018; e-mail, perry@mctc.edu.

ADMISSIONS POLICY

ADMISSIONS INFORMATION

For general information regarding MCTC programs and policies please visit www.mctc.edu.

ADMISSIONS POLICY

MCTC adheres to an open admissions policy as outlined in Title 135 Procedural Rule, West Virginia Council for Community and Technical College Education, Series 23, Standards and Procedures for Undergraduate Admissions at Community and Technical Colleges. It is the intent of this policy that everyone shall have access to higher educational opportunities commensurate with their interests and abilities.

A. General Admissions Information

Applicants should contact the MCTC Admissions Office for application information. Applicants may also download an application for admission at www.mctc.edu (Select either the online or printed version of admissions form for submission.) Applications should be mailed to:

MCTC Admissions Office
Office of Student Services
P.O. Box 5500
Huntington, WV 25703

Applicants with a high school diploma or a GED are eligible for regular (degree-seeking) admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis. A student must obtain his/her GED by the end of the first semester to complete full admission and be eligible to register for successive semesters. An individual may enroll as a non-degree-seeking student to take courses for personal or professional enrichment.

Being admitted to MCTC does not guarantee that applicants will be accepted into all associate or certificate programs. Some programs have additional admissions requirements. Programs with specific Admission Requirements are outlined in Section J.

To receive financial aid, an individual must be admitted as a degree-seeking student and have official high school transcripts or GED scores on file with the MCTC Admissions Office. Students entering college directly from high school are strongly encouraged to complete the ACT or SAT I assessment. For additional testing information, contact the Office of Student Services located in the Community College Building, lower level; phone, (304) 696-3005.

B. Policy Board

Regular admission to MCTC is open to any person who has a high school diploma or meets General Educational Development (GED) requirements.

- Persons not holding a high school diploma or GED who demonstrate an ability to benefit from postsecondary education may be admitted on a conditional basis. However, following each semester, conditionally enrolled students shall be evaluated by appropriate MCTC staff to determine whether college-level academic performance indicates an ability to continue their studies. Neither regular nor conditional admission shall ensure the entry of applicants into specific programs.

- High school transcripts or equivalent are required to be on file for each incoming freshman who is registered in an undergraduate certificate or degree program, and who has graduated from high school within five years. Such transcripts shall be on file with the institution prior to granting regular admission.

- Transfer students must supply the institution with official transcripts reflecting all pervious college work prior to regular admission. Receipt of transcripts will not discriminate against admission.

- If a student is interested in transfer credit, an official transcript must be provided from a regionally accredited institution.

- Control and administration of this admissions policy rests with the MCTC Office of Student Services.

C. Students Seeking Readmission

Students who have not attended MCTC during the past 12 months are required to apply for readmission. The readmission form is available from the Registrar's Office or on-line at: www.mctc.edu and must be printed, completed, and sent to the MCTC Registrar's Office along with a copy of the student's driver's license. Mail the readmission form to:

Registrar, MCTC
P.O. Box 5500
Huntington, WV 25703

There is no fee for applying for readmission and the application is normally processed within five working days. However, if a student has attended another college since last attending Marshall, the student must reapply as a transfer student as outlined in Section F.

D. Transfer Policy

College level course credits earned at regionally ac-

credited post-secondary institutions can be transferred to MCTC. Transfer credit is subject to the approval of the Division Dean in which the student matriculates, and with the following provisions:

- MCTC must receive official transcripts of all college level work completed at other regionally accredited colleges before formal transfer credit will be awarded. Grades earned at other institutions will not be entered into the cumulative grade-point average (GPA) at MCTC.
- Course in which a grade of "C" or higher is earned are transferable for credit if coursework is relevant to the student's program at MCTC with the approval of the Division Dean.
- Credits earned at foreign post-secondary institutions may also be transferred, subject to review and approval of the Dean of the Division in which the student matriculates. Students applying for foreign credit transfer must submit an official evaluation of foreign educational credentials from an accredited evaluation agency.
- Transfer students are required to complete a residency requirement prior to graduation.
- The transfer evaluation is based on the declared major of the student.

Students who transfer to MCTC must complete at least 12 credit hours at MCTC to obtain an associate degree, or 6 credit hours at MCTC to obtain a certificate degree. (Students enrolled in the Board of Governor's Associate in Applied Science, Associate in Applied Science in Occupational Development, and Associate in Applied Science in Technical Studies degree programs are required to complete 3 credit hours of coursework to establish academic residency.) MCTC reserves the right to suspend or expel any students who misrepresent the truth on any admissions document.

E. Early Entrance High School Students

High school students may enroll in courses at MCTC provided they meet course prerequisites and the following requirements:

- Complete a consent form signed by the high school principal or counselor and parent/guardian.
- Submit a completed MCTC Admissions Application for Admission Form along with appropriate fees.
- Have a 2.0 grade point average on a 4.0 scale.
- Meet prerequisites for courses, which may include ACT, SAT I scores, or other state-approved placement test scores.
- Early admission students are not eligible for financial aid and may not reside on campus.

F. International Students

International students seeking admission to MCTC must comply with the following:

- Each applicant must satisfy all admission requirements related to the student type (including but not limited to freshman, transfer, non-degree, etc.) for which they are applying.
- Each applicant must provide an approved evaluation of all previous secondary and postsecondary work completed.
- Each applicant from a non-English speaking country must provide evidence of satisfactory command of the English language as evidenced by a composite TOEFL score of 500 or better, or a score of 173 on the computer-based TOEFL, or an internet-based score of 61. Information concerning this test can be secured through the United States Embassies and Consulates throughout the world or by writing to TOEFL, 1755 Massachusetts Avenue, NW, Washington, DC 20036 or going on-line to http://www.ets.org/toefl.
- Each applicant who plans to enter the country to attend MCTC must indicate that he or she has sufficient funds for tuition, fees, books, and living expenses through a notarized affidavit of support. Before an I-20 form is issued, the applicant must submit proof of availability of tuition for one academic year to:

Marshall University
Center for International Programs
Old Main 320
One John Marshall Drive
Huntington, West Virginia, USA 25755-1054

- An Applicant who plans to transfer to Marshall Community & Technical College from another postsecondary institution must supply documentation of satisfactory academic progress and be eligible to return to his/her previous institution.
- International students who are seeking occupational development degrees will be considered for admission under the same guidelines as students from the USA. All international student applicants, including first time freshman and degree-seeking transfer students, must have all previously earned college credit evaluated, if credit is to be transferred. A complete listing of accredited evaluation services can be obtained at www.marshall.edu/cip.

If any international applicant completes the procedures above but does not register or registers for less than full-time (12 hours), the MCTC Registrar's Office must notify the Immigration Office immediately.

Programs with Specific Admission Requirements

The following degree programs have either limited admis-

sions or selective admission requirements. For more information about admission requirements contact the Dean of the program.

1. Allied Health and Life Sciences:

A. Clinical Assistant Program:

- Completion of Clinical Assistant program admission packet, including official transcripts.
- Applicants must be able to meet technical standards as listed in the program admission packet.
- Applicants must complete all general education and prerequisite courses with a grade of "C"or better, and must have a cumulative GPA of 2.5 or higher.
- Proof of medical insurance coverage is required for internship.
- Prior to internship, students must submit proof of Tuberculosis testing and Hepatitis B vaccination, or sign a waiver refusing vaccination.
- Some clinical facilities may require random drug screen testing or background checks prior to acceptance into internship.
- The Clinical Assistant program is a limited enrollment program. Program admission for upcoming fall semester will be granted beginning in May.
- Admission packets may be obtained from the Allied Health Division Office, Cabell Hall 304 after February 1st.

B. Physical Therapy Program:

Students seeking admission into the Physical Therapy Program at MCTC must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. The date that this meeting occurred must be documented within the submitted application (faculty signature required). Applicants failing to meet this expectation will be considered non-acceptable.

- Application packets are available after October 15 from the Allied Health & Life Sciences Division, Cabell Hall Room 304 or 208.
- Students that have attained an application packet may contact the program office beginning October 16 to schedule an appointment at (304) 696-3008 or (304) 696-3891.
- Application deadline is February 15 (appointment must be completed prior to this deadline)
- Applications are valid only for the noted academic year

C. Associate in Applied Science in Radiologic Technology: (Collins Career Center.)

Each year there are 10 to 15 applicants accepted into each program. Minimum requirements for consideration are:

- Completion of an application between January 1 and May 31 for classes beginning the following January.
- High school diploma or successful completion of the GED.
- Twelve (12) hours of general diagnostic radiographic shadowing completed at a qualifying medical institution.
- A "C" or better in the following MCTC courses: MAT 145, SCI 110, AH 151, IT 101, ENL 111 and BIOL 257. A minimum of 12 hours must be credited by MCTC to be granted the Associates Degree.
- Minimum ACT Composite, Math, and Science scores of 21 within the last 5 years.
- The WorkKeys test may be substituted for the ACT. Contact Collins Career Center at (740) 867-6641 to schedule the test.
- Additional points are awarded for the following:
  - College GPA of 2.5 or higher.
  - Completion of SCI 220 and/or SS 215 with a grade of "C" or better.

D. Associate in Applied Science in Respiratory Therapy:

- All general education and technical courses delivered at Collins Career Center.
- The Respiratory Therapy Program has selective admissions each year.
- A pre-entrance (WorkKeys) exam or ACT score of 21 or higher, is required for acceptance into the program. Contact Collins Career Center at (740) 867-6641 to schedule the test.
- The first 20-24 eligible applications received will be admitted into the program.

If admitted, students must complete 89 quarter hours of Respiratory Therapy courses at Collins Career Center. As part of the 89 quarter hours, the student will be required to complete clinical practice rotations at area healthcare facilities.

NOTE: Applicants may be required to complete a criminal background check following program admission. As some clinical sites require this information prior to placement, failure to do so will limit the applicant's opportunities for clinical education and the type of learning experiences available.

2. Business Information and Technology:

- Associate in Applied Science in Administrative Technology—Medical Transcription Option.

The following must be met for admission to the

program:

- Successfully complete spelling, punctuation, and grammar entrance exams.
- Demonstrate keyboarding speed of 45 words per minute or better.

The following must be met for admission to the second year of the program, second semester: First semester, 2nd-year courses must be completed with a grade of C or higher.

3. Liberal Arts and Human Services:
Associate in Applied Science in Technical Studies—Machinist Technology

Students must apply for admission to the Robert C. Byrd Institute for Advanced Flexible Manufacturing and pass a mathematics test for Machinist with a score of 70% or above. Successful candidates will be invited for a personal interview.

4. Off-Campus Programs:

- Associate in Applied Science in Police Science (available only to West Virginia State Police Cadets).
- Associate in Applied Science in Occupational Development: All Options (available only to students who have participated in Department of Labor Apprenticeship programs).

APPLICATION PROCESS

Students applying for admission to MCTC must submit an MCTC admission application form available from the Admissions Office or online at www.mctc.edu. All necessary supporting materials should be on file with the MCTC Admissions Office at least two weeks before the beginning of a semester or term. All materials submitted in support of an application for admission become the property of MCTC. Materials will not be returned or released to third parties. Any student admitted on the basis of false and/or incomplete information is subject to immediate dismissal or other disciplinary action.

Requests for applications, and additional information can be found at www.mctc.edu

Students with a high school diploma or General Education Development Certificate (GED) may apply for regular admission to a one-year certificate and/or a two-year degree program in the Marshall Community & Technical College.

Students who do not have a high school diploma or GED may be admitted on a conditional basis, but their academic performance will be evaluated at the end of each semester of enrollment to determine their ability to continue college-level studies. Conditionally- admitted students must demonstrate progress by completing 50% of attempted courses each semester with a 2.0 GPA or equivalent. Upon completion of 12 hours of developmental and/or college-level credits, students must have a 2.0 GPA or equivalent and have earned the GED. Being admitted to the MCTC does not guarantee acceptance into specific programs as some programs have additional requirements for admission.

Full- and Part-Time Students

A full-time student is someone who is enrolled in at least 12 credit hours during fall and spring term. Students carrying fewer than 12 hours during fall and spring terms are considered part-time regardless of past full-time enrollment. Full- or part-time status may affect eligibility for financial aid in many programs, so students should consult with the financial aid office for more information.

Application Fees

All new students applying to MCTC must pay an application fee of $15. In addition to the application fee, transfer students must also pay a $10 transcript evaluation fee, if credit is to be transferred. Fees paid to MCTC are valid for one academic year (fall, spring and summer semesters) only. If a student does not attend that Academic year, the student must reapply and pay the admission fee again. Students enrolled through the Early Admission High School program will not be reassessed a fee when applying as freshmen. All fees paid to MCTC are nonrefundable.

Compliance with Military Selective Service Act

State law provides that a male person who has attained the age of eighteen (18) years may not enroll in a state-supported institution of post-secondary education unless he is in compliance with the Military Selective Service Act (50 U.S. Code, Appendix 451, et. eq. and the amendments thereto). Also, a male person may not receive a loan, grant, scholarship, or other financial assistance for post-secondary higher education funded by state revenue, including federal funds or gifts and grants accepted by this state, or receive a student loan guaranteed by the state unless he is in compliance with the Military Selective Service Act.

Orientation

MCTC New Student Orientation programs are conducted during the summer to help freshmen and transfer students, learn more about MCTC, and to meet students, staff, faculty, and administrators. During the Orientation programs, students and parents will learn about campus services, extracurricular activities, and community life. Most importantly, new students will meet with an academic advisor, plan their course schedules, and register for classes. All newly-admitted students will automatically receive an Orientation reservation form. All students are expected to attend this important first step into college life at MCTC. For more information, call The Office of Admissions at (304) 696-3005.

Placement Tests

Students who have not taken the ACT or an equivalent test will be required to take placement tests in English, reading, and mathematics to determine appropriate placement before registering for classes.

MCTC offers placement tests during summer orientation and at other times announced throughout the academic year or by appointment in the MCTC Advising Center. To qualify for these placement exams, students must be fully admitted to MCTC or Marshall University or currently enrolled in a secondary school with at least junior status. Students who have received an “NC,” “F,” or “W” in a developmental course are ineligible to attempt the placement exam for that dropped or failed course.

The placement tests cost $10 each. Call MCTC Office of Student Services at (304) 696-6282 for additional information.

ACT/SAT SCORES CORRELATION FOR ENGLISH, READING AND MATH

ENGLISH

ACT Score	SAT Score	Course
1-10	Below 300	ENL 092 – Sentence Skills
11-13	300-360	ENL 094 – Developmental Communication
14-17	370-440	ENL 095 – Developmental Writing
18 and above	450 and above	100-level English/Communication Course

MATH

ACT Score	SAT Score	Course
1-11	Below 250	MAT 080 – Basic Mathematics
12-15	250-370	MAT 085 – Elementary Algebra
16-18	380-450	MAT 095 – Fundamental Mathematical Concepts
		MAT 097 – Intermediate Algebra
19 and above	460 and above	100-level Mathematics Course

READING

ACT Score	SAT Score	Course
Below 17	Below 420	REA 098 – Reading Improvement

Developmental courses are awarded credit/no-credit (CR/NC) and are recorded on the transcript. These courses enable students to take subsequent college-level work. The hours and credit earned in developmental courses do not count toward the hours and grade point requirements for graduation; however, the courses count toward full-time status and eligibility for financial aid.

MCTC's Academic Skills Center offers instruction by computer programs, videos, cassettes, programmed materials, and teacher assistance. Some developmental courses require a co-requisite course or supplemental visits to the Academic Skills Center as part of their standard course requirements. Academic Skills Center hours are 8 a.m. to 8 p.m. Monday - Thursday; 8 a.m. to 3 p.m. Friday; 9 a.m. to 1 p.m. Saturday, and 3 p.m. to 7 p.m. Sunday.

SPECIAL ADMISSION INFORMATION

COLLEGE COURSES IN THE HIGH SCHOOL

If a student meets the following requirements and a MCTC course is offered at his or her high school, he or she may earn college credit while also earning high school credit:

- currently enrolled in high school or an approved home-school program;
- a 2.5 or better grade point average;
- recommendation of high school principal
- meet all course requirements and prerequisites;
- submit transcripts of high school credit and grades;

COLLEGE GRADUATES

Application Procedures for College Graduates seeking an Associate degree:

An applicant who has attained a degree and who wishes to pursue an Associate degree at MCTC must apply as a transfer student and submit official transcripts from all institutions attended. If credit is to be transferred. See Transfer section. An Associate degree requires students to fulfill the requirements of the degree.

EDGE

EDGE stands for "Earn a Degree – Graduate Early" and it allows students to earn for community and technical college credit for high school courses.

RESIDENT ALIENS

Resident Aliens must submit a copy of a valid resident alien card and meet all relevant freshmen or transfer student admission requirements.

TRANSIENT STUDENTS

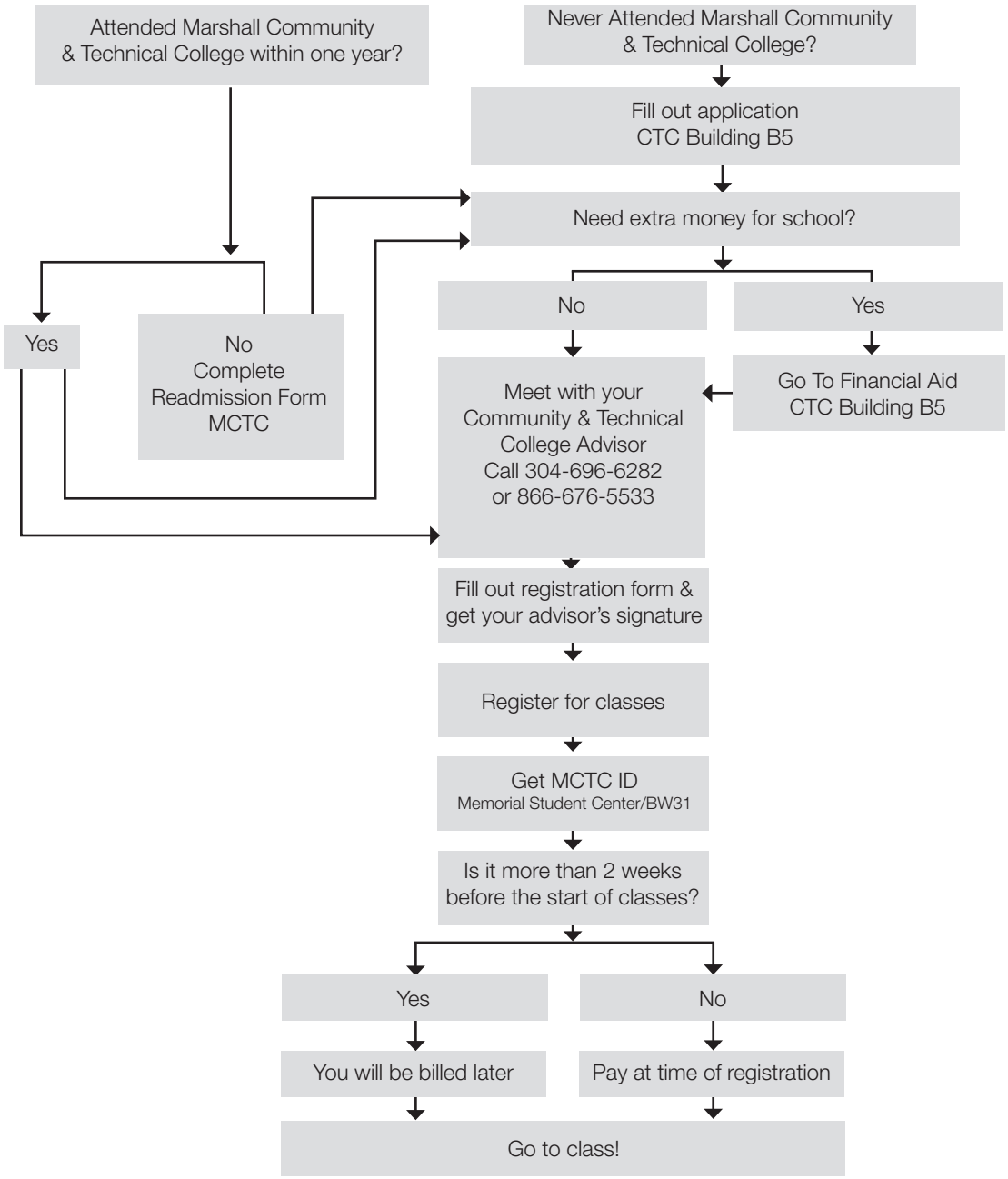
1. Students Visiting MCTC from Other Institutions

Students enrolled in a degree program at another collegiate-level institution during the previous year who would like to enroll at MCTC for no more than two consecutive semesters may be admitted as transient students. Transient students must submit an application with all appropriate fees to the MCTC Admissions Office for each term in which they wish to enroll and have the Registrar at their home institution send a letter of good academic standing to the MCTC Admissions Office for each term in which they wish to enroll.

2. MCTC Students Who Wish to Visit Other Institutions

Current MCTC students who wish to enroll at another institution must complete an advanced standing (transient approval) form prior to enrollment. (Form may be obtained from MCTC Registrar). If a student does not submit this form and attends another institution, he or she will be required to pay the Transcript Evaluation fee and may be required to reapply as a transfer student. Students who attend another institution for more than 2 semesters (excluding summer terms) must reapply as transfer students, even if prior transient approval has been granted. A student who completes an advanced standing (transient approval) form must submit a transcript from the host institution for all semesters attended. If the student did not actually attend the host institution for which approval was granted, that institution must provide documentation stating that the student was never enrolled there. Failure to provide these documents will result in a hold being placed on the student's record.

REGISTERING AT MCTC



TUITION AND FEES

TUITION AND FEES

MCTC and its governing board reserve the right to change fees and rates without prior notice. For current information regarding tuition and fees, please log onto the MCTC Business Services Office website at:
www.mctc.edu/administration/business_services.

PAYMENT OF FEES

Tuition and fees are due and payable to the MCTC Business Services Office cashiering area in accordance with the due dates listed on the MCTC Business Services website at http://www.mctc.edu/administration/business_services. If the student does not pay tuition and fees on or before the due date, his or her registration may be canceled and the student may be subject to withdrawal from MCTC. (See Withdrawal/Reinstatement Policy) All bills will be sent electronically to the student's MCTC email address. It is always the students' responsibility to know when tuition and fees are due and to pay them by that time.

Student deferred payment plans for tuition and fees will be offered for the fall and spring semester. All available financial aid for the term must be credited to the student's account prior to determining the amount available for deferral. Students must come in person to the MCTC Business Services Office cashiering area to sign up for deferred payment plans prior to any official due date.

Any student living in the Marshall University Residence Halls must make payment to the Marshall University Office of the Bursar based on any payment schedule the university may provide.

Students may pay tuition and fees in person or online at www.mctc.edu/myMCTC. Payments of cash and check only are accepted in person at the MCTC Business Services Office cashiering area.

A student's registration is not complete until all tuition and fees are paid. Registration may be canceled if the bank does not honor the student's check or electronic check for payment of registration fees. A charge of $25 will be assessed for each check returned unpaid by the bank.

A student who has a financial obligation to MCTC cannot engage in any registration activity until the obligation is satisfied. Should the obligation remain unpaid and require assignment to a state-authorized collection agency, the student additionally will be responsible for all collection costs incurred by the institution.

A student who withdraws from the institution by following proper withdrawal procedures will receive refunds of tuition and fees paid in accordance with the refunding policy.

A student who is required to withdraw from the institution for disciplinary reasons may not receive refunds of tuition and fees paid.

WITHDRAWAL/REINSTATEMENT POLICY FOR NONPAYMENT OF ENROLLMENT FEES

- Through late registration each semester, a schedule of withdrawal for nonpayment will be listed on the MCTC Business Services website at www.mctc.edu/administration/business_services. Following late registration, the MCTC Business Services will send written notification to the student advising of any administrative withdrawal for non payment of tuition and fees.

- Any student owing amounts to Marshall University for residence hall or meal plan charges may be subject to administrative withdrawal for nonpayment and may not be permitted to enroll in subsequent semesters or terms until the obligation is paid.

- Upon notice from the MCTC Business Services Office, the MCTC Registrar will initiate a complete withdrawal for a student not paying fees. The withdrawal will be classified as "Administrative –Nonpayment of Enrollment".

- If the student fulfills the financial obligation, the MCTC Business Services Office will notify the student Dean of Student Services. The dean will have discretion to approve registration.

- A student who does not meet the financial obligation for enrollment will have that registration removed from the student's official record.

- A student who owes a financial obligation to MCTC will not be permitted to enroll in subsequent semesters or terms until the obligation is paid.

- If a student disputes an administrative withdrawal, for financial obligations he/she may file an appeal with the Dean of Student Services.

WITHDRAWAL/REINSTATEMENT FOR OTHER FINANCIAL OBLIGATIONS

- Failure to fulfill other types of financial obligations with proper procedure may result in administrative withdrawal from MCTC.

- Upon notice from the MCTC Business Services Office, the MCTC Registrar will initiate a complete withdrawal for a student not paying financial obligations. The withdrawal will be classified as "Administrative-Nonpayment of Financial Obligations" and will be dated with the effective date of processing of the withdrawal. Under these conditions, procedures will be followed as previously outlined in Items 3 and 4 in the section titled "Withdrawal/Reinstatement Policy for Nonpayment of Enrollment Fees".

- A student who owes other types of financial obligations to MCTC will not be permitted to enroll in subsequent semesters until the obligation is paid.

- If a student disputes an administrative withdrawal, he/she may file an appeal with the Dean of Student Services.

REFUND PROCEDURES

Tuition and fees will be refunded during the period designated by the MCTC Business Services Office for Registration, Late Registration, and Schedule Adjustments for a regular semester or a summer term as listed on the MCTC Business Services website at www.mctc.edu/administration/business_services. Tuition and fees will be refunded to students for:

- Classes officially dropped from the student's course schedule reducing the student's total schedule semester hours from full-time status to part-time status. Example: Enrollment dropping of classes to adjust course schedule from 12 or more hours to fewer than 12 hours.

- Classes officially dropped from the student's course schedule when the enrollment is in a current part-time status reducing the student's total scheduled semester hours. Example: Enrollment dropping of classes to adjust course schedule to fewer than 11 hours.

- Official complete withdrawals from all classes course schedule.

- Title IV Financial Aid first time enrollees who officially withdraw before or during their first period of enrollment shall have their refund calculated in accordance with the provisions contained in the 1992 amendments to the federal Higher Education Act. (See Return of Title IV Funds)

- Students who are denied admission, declared academically ineligible to return, or are unable to return for medical reasons, may be refunded on a prorated basis.

- Refunds of tuition and fees to students called to armed services will be processed in accordance with military regulations.

- When it becomes necessary to cancel a class by administrative and/or faculty action, a student is granted a full refund of the tuition and fee for the class canceled unless he or she registers in another course of like value in terms of semester hours. This action does not apply to disciplinary action or withdrawals due to nonpayment of financial obligations.

REFUND SCHEDULE

The refund schedule is defined by the MCTC Business Services Office and published on the Business Services website at: www.mctc.edu/administration/business_services. The schedule is based on the following general guidelines during fall and spring semesters:

- **100% Refund** – Changes processed prior to the start of the semester.
- **90% Refund** – Changes processed during the first two weeks of the semester.
- **70% Refund** – Changes processed during the third and fourth weeks of the semester.
- **50% Refund** – Changes processed during the fifth and sixth weeks of the semester.
- **0% Refund** – Any changes beginning with the seventh week.

The schedule is based on the following general guidelines during summer terms and nontraditional periods:

- **100% Refund** – Changes processed prior to the start of the term.
- **90% Refund** – Changes processed during the first 13% of the term.
- **70% Refund** - Changes processed from 14% to 25% of the term.
- **50% Refund** – Changes processed from 26% to 38% of the term.
- **0% Refund** – Any changes processed after 38% of the term.

Should the percentage calculation identify a partial day, the entire day should be included in the higher refund period. MCTC and its governing board reserve the right to change refund schedules without prior notice. Any changes will be reflected in the refund schedule given on the MCTC Business Services website at: www.mctc.edu/administration/business_services.

In order to ensure that refunds are received in the most timely manner possible, all students are encouraged to sign up for the electronic direct deposit of any refunds. The student's banking information can be entered through www.mctc.edu/myMCTC to register for this process.

RESIDENCE HALLS

MCTC requires that all single full-time freshmen and sophomore students taking 12 or more semester credit hours of classes on the Huntington campus, whose principal place of residence is outside the 50-mile radius of the Huntington campus, reside in the Marshall University residence halls and participate in a meal plan.

This requirement does not apply to students who are 21 years of age or have custody of dependent children.

Exemptions may be granted by the MCTC Dean of Student Services to students who can demonstrate extenuating circumstances that prohibit them from staying in the residence halls.

All residence hall and meal plan arrangements must be made with the Marshall University Residence Services. Information can be found on their website at: www.marshall.edu/residence-services.

Any student living in the Marshall University Residence Halls must make payment to the Marshall University Office of the Bursar based on any payment schedule the university may provide.

TUITION AND FEES CHART

FALL 2009 - SUMMER 2010

	On-Campus Per Hour	Off-Campus Per Hour	On-Campus 12+ Hours
WV Resident	$119.00	$120.75	$1,428.00
Metro*	$228.25	$230.00	$2,736.00
Non-Resident	$340.25	$342.00	$4,080.00

*Metro area includes the following counties:
In Ohio: Gallia, Jackson, Lawrence, Meigs, Pike and Scioto;
In Kentucky: Carter, Elliot, Floyd, Greenup, and Johnson

The following Kentucky Reciprocity counties are assessed at WV Resident rates: Boyd, Lawrence, Martin and Pike

Additional fees may apply for specific programs and courses. Please call MCTC Business Services for details.

Registration fees:

Late Registration/Payment Fee	$20.00
Online Course Fee	$119.00/credit hour

Graduation fees:

(non-refundable but if graduation requirements are not completed, the fee will carry over to subsequent graduation with no need to reapply)

Associate Degree	$20.00
Diploma Replacement	$20.00

FINANCIAL AID

FIRST STEPS TO APPLY FOR FINANCIAL AID

A student must be admitted to MCTC and enrolled as a regular student in an eligible program before he or she can receive any financial aid. To apply for needs-based financial aid, a student (and parent, if applicable) must complete a Free Application for Federal Student Aid (FAFSA) available online at www.fafsa.ed.gov A student must submit the FAFSA to be considered for all available resources including institutional waivers, scholarships, grants, loans and student employment. A processing fee is not required for the FAFSA.

The FAFSA determines family ability to meet the cost of the student's education, which, in turn, determines "financial need." Electronically submit the FAFSA as soon after January 1 as possible to receive consideration for programs with limited funding. Application deadline for West Virginia Higher Education Grant Program is March 1.

The federal application processor will send an acknowledgment to the student and will submit the data to MCTC upon student request. MCTC's Title IV Institutional Code is 040414.

NEEDS-BASED AID

Types of financial assistance:

Grants/Scholarships – Student assistance that does not have to be repaid, available from a number of sources.

Work Study – Employment opportunities for students with financial aid eligibility, based upon need and institutional funding.

Loans – Student assistance that must be repaid upon graduation or dropping at or below half-time enrollment.

FINANCIAL ASSISTANCE PROGRAMS AT MCTC

Federal Pell Grant: available to full- and part-time students. Applicants must complete the FAFSA.

Federal Supplemental Educational Opportunity Grant (SEOG) – *(available to full- and part-time students)* priority is given to Pell Grant recipients. Applicants must complete the FAFSA.

Academic Competitiveness Grant (ACG) – *(available to full- and part-time students)* priority is given to Pell Grant recipients. Applicants must complete the FAFSA and have met specific rigorous academic requirements in high school.
West Virginia Higher Education Grant Program – *(for full-time students who are West Virginia residents)*. Applicants must complete the FAFSA. Details are available on the West Virginia Higher Education Policy Commission Web site, www.hepc.wvnet.edu.

West Virginia Higher Education Adult Part-time Student (HEAPS) Grant Program – Awarded to eligible part-time students taking no fewer than six hours or more than eleven semester hours and who have been West Virginia residents for 12 months immediately preceding the date of HEAPS Grant application. All applicants must complete the FAFSA. Details on HEAPS can be found at www.hepc.wvnet.edu.

FEDERAL WORK STUDY

Under the Federal Work Study, eligible students enrolled at least half-time can work part-time to earn money for educational purposes. Students earn at least the current federal minimum wage and can work until the total amount reaches a preset level. Applicants must complete FAFSA. Employment and/or positions are not guaranteed for all those who qualify or for all those who apply. Priority is given to students in on-campus, community service and literacy program positions. MCTC has a separate application process as funds are limited. See MCTC's Office of Financial Aid for details.

FEDERAL STUDENT LOANS

Federal Direct Stafford Subsidized Loan – need-based loans (borrowed money that must be repaid, with interest, just like car loans and home mortgages) for students enrolled for at least six hours in a term. Applicant must complete the FAFSA and have unmet financial need. A variable interest rate is set annually, not to exceed 8.25%.

Federal Direct Stafford Unsubsidized Loan – for students enrolled for at least six credit hours who have not had their expenses met through other financial aid. Applicants must complete the FAFSA. Loan amounts, interest rates and repayment conditions are the same as for the Federal Direct Stafford Subsidized Loan. However, interest payments on this loan accrue from the time the loan is disbursed until it is paid in full.

All first-time borrowers are required complete an interactive Entrance counseling interview at www.dl.ed.gov Entrance interviews are designed to familiarize the borrower with his or her rights and responsibilities. All first-time borrowers are required to complete a Master Promissory Note at www.dlenote.ed.gov/empn/index.jsp

Loan proceeds cannot be distributed a student completes these requirements.
Repayment begins six months after graduation or after enroll-

ment drops to fewer than six hours. All borrowers are required to an interactive Exit counseling interview at www.dl.ed.gov.

MAXIMUM ANNUAL LOAN AMOUNTS

First Year, Dependent	$ 5,500
No more than $ 3,500 may be subsidized.	
First Year, Independent	$ 9,500
No more than $ 3,500 may be subsidized.	
Second Year, Dependent	$ 6,500
No more than $ 4,500 may be subsidized.	
Second Year, Independent	$ 10,500
No more than $ 4,500 may be subsidized.	

MAXIMUM TOTAL DEBT FROM STAFFORD LOANS

Dependent Undergraduate	$ 31,000
No more than $ 23,000 may be subsidized.	
Independent Undergraduate	$ 57,500
No more than $ 23,000 may be subsidized.	

Federal Direct PLUS Loan – for parents of dependent students. Loans are only for the expenses of education that other aid doesn't cover. Applicants must complete a Parent Loan Data Sheet. An applicant with an adverse credit history is denied per program regulations.

Federal Work Study Program – for qualified students who will be assigned jobs on campus and paid twice each month for work done. The student can work until the total amount reaches a preset level. Applicants must complete FAFSA.

STATE-SPONSORED TUITION WAIVERS AND SCHOLARSHIPS

West Virginia PROMISE Scholarships – The West Virginia PROMISE Scholarship Program is available to West Virginia high school graduates meeting eligibility standards. More details are available at www.hepc.wvnet.edu or by calling toll-free: 1-877-987-7664.

TUITION WAIVERS AND SCHOLARSHIPS AT MCTC

MCTC requires a separate, annual application for institutional funds including Tuition Waivers and Scholarships. Incoming freshmen and transfer students are not automatically considered for scholarship assistance based upon admission records.

STATE-MANDATED TUITION WAIVERS

The State of West Virginia mandates tuition be waived for certain classifications of students. See MCTC's Office of Financial Aid for specific requirements.

Desiree L. Franklin Scholarship – awarded to an MCTC student with at least a 2.5 grade point average who is enrolled as a full-time student at MCTC. Applicants will be required to complete an application and write an essay. This scholarship is awarded in the spring semester for the following fall.

William L. and Marie E. Redd Scholarship – awarded to a full-time African-American student from McDowell or Cabell County, either currently enrolled or newly admitted. Applicants will be required to complete an application and write an essay. The student must maintain at least a 2.0 grade point average.

METRO AREA FEES

Kentucky – Carter, Elliott, Floyd, Greenup and Johnson counties

Ohio – Gallia, Jackson, Lawrence, Meigs, Pike and Scioto counties

Resciprocity – Boyd, Lawrence, Martin and Pike counties in Kentucky

*Rates apply to persons residing in these counties

SATISFACTORY ACADEMIC PROGRESS

Federal regulations require MCTC to have a written policy for reviewing students' progress toward attaining their certificate or degree.

To continue to be eligible for FSA funds, a student must make satisfactory academic progress. MCTC checks degree-seeking students' progress at the end of the spring term of each academic year. MCTC checks certificate-seeking students' progress at the end of each term. MCTC's SAP policy requires students to maintain a cumulative GPA of 2.00, complete at least 67% of all hours they attempt, and not exceed attempting 150% of the credit hours required for their credential. See MCTC's Office of Financial Aid for a complete description.

RETURN OF TITLE IV FUNDS

Federal regulations require MCTC to have a written policy for the refund and repayment of federal aid received by students who withdraw during a term for which they receive payment. These policies are effective only if a student completely termi-

nates enrollment (i.e., cancels his/her registration, withdraws, or is dismissed) or stops attending classes before completing 60% or more of the enrollment period.

Students planning to terminate enrollment at MCTC should contact the MCTC Registrar, to complete the appropriate paperwork. Adjustments to tuition and/or applicable institutional room/board charges resulting from official terminations are based on the effective date of termination and in accordance with the federally mandated calculation as specified in Section 484B of the Higher Education Act.

This law also specifies the order of return of Title IV funds to the programs from which they were awarded. The calculation is based on the period of enrollment completed. That percentage is computed by dividing the total number of calendar days in the term into the number of calendar days completed as of the date of student notification.

The percentage of Title IV assistance to which the student is entitled (has "earned") is equal to this percentage of the term completed up to 60%. If the termination occurs after 60% of the term is completed, the percentage is equal to 100%.

The amount of Title IV aid which must be returned is based on the percentage of "unearned" aid. That percentage is computed by subtracting earned aid from 100%.

MCTC is required to return the lesser of 1) the unearned aid percentage applied to institutional charges or 2) the unearned aid percentage applied to the total Title IV aid received.

The student is required to return the difference between the amount of unearned aid and the amount returned by the college. MCTC will bill the student for the amount the student owes the Title IV programs and/or any amount due the college resulting from the return of Title IV funds used to cover college charges, including collection costs. If the student (or parent(s) in the case of PLUS loan) is required to return a portion or all of his or her loan proceeds, the calculated amount is to be repaid according to the loan's terms. Students must return only half the amount of grant funds calculated as a repayment due.

Funds are returned to the following Title IV sources in order of priority:

1. Unsubsidized Federal Direct Loans
2. Subsidized Federal Direct Loans
3 Federal Perkins Loans
4. Federal Direct PLUS Loans
5. Federal Pell Grants
6. Academic Competitiveness Grant
7. National Smart Grant
8. Federal SEOG

IMPORTANT WEBSITES

MCTC	www.mctc.edu
West Virginia Higher Education Policy Commission	www.hepc.wvnet.edu
FAFSA	www.fafsa.ed.gov
PIN	www.pin.ed.gov
FSA Programs	www.FederalStudentAid.ed.gov
Direct Stafford Loans	www.ed.gov/DirectLoan

IMPORTANT PHONE NUMBERS

Main	(304) 696-6282
MCTC Student Services Office of Financial Aid	(304) 696-6282 1 (866) 676-5533
FSAIC *(Federal Student Aid Information Center)*	1 (800) 433-3243
Direct Loan Direct Loan Servicing	1 (800) 848-0979
West Virginia Higher Education Policy Commission	1 (877) 987-7664


VETERAN
SERVICES

Allied Health & Life Sciences

BIOSCIENCE

CLINICAL ASSISTANT

DENTAL ASSISTANT

DENTAL LAB TECHNOLOGY

HEALTH INFORMATION TECHNOLOGY

HEALTH OCCUPATION

MASSAGE THERAPY

MEDICAL ASSISTANT

PARAMEDIC SCIENCE

PHARMACY TECHNICIAN

PHYSICAL THERAPIST ASSISTANT

RADIOLOGIC TECHNOLOGY

RESPIRATORY TECHNOLOGY

BIOSCIENCE - ASSOCIATE IN APPLIED SCIENCE

Program Description:

Bioscience A.A.S. Graduates have a wide range of career options within the health science and biotechnology industries. Bioscience technicians work in professional, scientific, or technical services firms. Bioscience technicians also work in educational services, Federal, State and local governments, or pharmaceutical and medicine manufacturing.

Bioscience technicians working with biologists study living organisms. Many assist scientists who conduct medical research - helping find a cure for cancer or AIDS, for example. Those who work in pharmaceutical companies help develop and manufacture medicine. Those working in the field of microbiology generally work as laboratory assistants, studying living organisms and infectious agents. Biological technicians also analyze organic substances, such as blood, food, and drugs. Biological technicians working in biotechnology apply knowledge and techniques gained from basic research, including gene splicing and recombinant DNA, and apply them to product development. Some Bioscience technicians work in agricultural or food science with related scientists to conduct research, development, and testing on food and other agricultural products.

The A.A.S. Bioscience Technician Degree includes a total of 60 credit hours, including a 4-week summer internship at an affiliated laboratory.

Career Outlook:

According to the United State Department of Labor, the employment projection on the average for all Bioscience Technicians is expected to grow as fast as other occupations. However, selective specialties within this field are expected to grow faster.

Salary Forecast:

Hourly wage for Bioscience Technicians, averages over $10.00 to $15.00/hour with benefits. Specialized training and/or national certification may earn more due to flexibility and adaptability to various practice sites.

(Information obtained from Occupational Outlook Handbook, 2006-2007)

Admission Requirements:

1. Applicants must complete all general education and prerequisite courses with a grade of “C” or better, and must have a cumulative GPA of 2.0 or higher.
2. Proof of medical insurance coverage is required for internship.
3. Some clinical facilities may require random drug screen testing or background checks prior to acceptance into internship.

BIOSCIENCE - ASSOCIATE IN APPLIED SCIENCE

MAJOR CODE - CB20

FIRST YEAR

First Semester				Second Semester			
ENL	111	Written Communication[1]	3	ENL	231	Technical Report Writing[3]	3
MAT	145	Applications in Algebra[2]	3	BIOS	202	Calculations in Bioscience[4]	3
IT	101	Fundamentals of Computers (EDGE)	3	BIOL	101	Unified Principles of Biology	3
BIOS	100	Careers in Bioscience	3	BIOL	101L	Unified Principles of Biology Lab	1
		Social Science Elective	3	SCI	220	Basic Chemistry[5]	3
						General Education Elective	3
TOTAL CREDITS			**15**	**TOTAL CREDITS**			**16**

SECOND YEAR

Third Semester				Fourth Semester			
BIOS	200	Laboratory Methods I[6]	3	BIOS	205	Laboratory Methods II[9]	3
BIOL	210	Intro to Microbiology	3	BIOS	242	Molecular Methods in Biotechnology[10]	4
BIOL	240	Principles in Cell Biology[7]	4	BIOS or BIOL Elective[11]			5
BIOS	241	Regulatory Affairs[8]	3				
TOTAL CREDITS			**13**	**TOTAL CREDITS**			**12**

SUMMER SESSION A

BIOS 299 Bioscience Internship[12] 4

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Hospitals
- Health Care Clinics
- Physicians' Office Laboratories
- Reference Laboratories

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Dr. Jason Black • Cabell Hall, Room 306
Phone: (304) 696-3889 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: blackj@mctc.edu

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1. ENL 111 has a prerequisite of COM 095, ACT 18.
2. MAT 145 has a prerequisite of ACT 19, MAT 097.
3. ENL 231 has a prerequisite of ENL 111.
4. BIOS 202 has a prerequisite of MAT 145 or higher with a "C" or better.
5. SCI 220 has a prerequisite of MAT 145.
6. BIOS 201 has a prerequisite of BIOL, Admission to the Bioscience program.
7. BIOS 240 has a prerequisite of BIOL 101 AND BIOL 101L.
8. BIOS 241 has a prerequisite of BIOS 100.
9. BIOS 205 has a prerequisite of BIOS 201, MAT 145 with a "C" or better, BIOS 202, BIOS 240 with a "C" or better.
10. BIOS 242 has a prerequisite of BIOS 200 and BIOS 240, Admission to the Bioscience program.
11. BIOS OR BIOL ELECTIVE - IST OR BSC elective with permission.
12. BIOS 299 has a prerequisite of BIOS 205, BIOS 242 with a "C" or better.

CLINICAL ASSISTANT
ASSOCIATE IN APPLIED SCIENCE

Program Description:

Clinical Assistants (CA) are multi-skilled clinical laboratory professionals competent to perform waived and low-to-moderate complexity laboratory testing. As a critical component of the health care team, the clinical laboratory is responsible for approximately 90% of the information physicians' use to detect, diagnose, and treat medical conditions and infectious disease. Typically, Clinical Assistants work under the supervision of a Medical Laboratory Technician or Medical Technologist.

The multi-faceted role of the Clinical Assistant includes collection of blood and non-blood specimens, preparation of blood and body fluid specimens for laboratory analysis, as well as laboratory testing in the areas of chemistry, hematology, microbiology, urinalysis, immunology, and blood product screening/component processing. Clinical Assistants perform laboratory testing using low-to-moderately complex automated instruments for specimen analysis, and routinely use Laboratory Information Systems for ordering tests and result documentation. The Clinical Assistant is capable of comparing laboratory test results to normal reference ranges, as well as recognizing abnormal laboratory test results and their relationship to common disease states. Strict adherence to safe laboratory practice and infection control policies is an essential element of this profession. A successful Clinical Assistant must be detail-oriented, possess excellent customer service skills, and be capable of prioritizing tasks in a manner to maintain workflow and productivity.

The A.A.S. Clinical Assistant Degree includes a total of 63 credit hours, of which 24 credit hours focus specifically on the field of laboratory medicine. Successful completion of the CA program will include a clinical internship at an affiliated health care facility. Many states require licensure in order to perform laboratory testing. The West Virginia Office of Laboratory Services (WVOLS) currently requires licensure of all laboratorians performing moderate-complexity laboratory testing. Upon completion of the Clinical Assistant program, graduates will be eligible for WV state licensure as a Clinical Laboratory Practitioner-Point of Care Technician, with appropriate documentation as required by WVOLS.

Career Outlook:

Opportunities for job placement in the field of laboratory medicine are excellent. At present, the number of jobs currently available exceed the number of qualified applicants. With steady population growth and implementation of new laboratory tests, employment is expected to grow faster than the average for all other occupations through the year 2014. With the rapid growth of point of care testing, employment opportunities in physician's offices and other ambulatory health care facilities will dramatically increase over the next five to ten years.

Salary Forecast:

Clinical Assistants working in a hospital setting earn an average of $12-15/hour with full health care benefits, retirement, and possible tuition and relocation reimbursement. For those working in phlebotomy positions, the 2003 median hourly wages were as follows: hospitals=$11.13/hour; physician office laboratories or private clinics=$10.50/hour.

(Information obtained from Occupational Outlook Handbook, 2006-2007)

Admission Requirements:

Students seeking admission into the Clinical Assistant program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information. The Clinical Assistant program is a limited enrollment program. Program admission for fall will be granted during the preceding May.

CLINICAL ASSISTANT
MAJOR CODE - CH50

FIRST YEAR[1]

First Semester				Second Semester			
AH	151	Medical Terminology (EDGE)	3	COM	112	Oral Communication	3
ENL	111	Written Communication[1]	3	IT	101	Fundamentals of Computers (EDGE)	3
EME	105	First on Scene	3	SCI	220	Introduction to Chemistry[3]	3
MAT	145	Applications in Algebra[2]	3	BIOL	265	Applied Human Physiology	4
BIOL	260	Applied Human Anatomy	4	SS	215	Lifespan Psychology	3
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**16**

SECOND YEAR

Third Semester				Fourth Semester			
AH	207	Infection Control for Health Professionals[5]	4	CLA	200	Phlebotomy	2
CLA	201	Laboratory Safety, Ethics, and Law	2	CLA	203	Urinalysis & Specimen Collection[8]	2
CLA	202	Laboratory Calculations[7]	2	CLA	206	Intro to Physician Office Lab[10]	2
CLA	204	Intro to Point of Care Testing	4	CLA	299	Clinical Assistant/POCT Internship[11]	4
CLA	205	Intro to Automated Instrumentation[9]	2	AH	205	Principles of Disease[4]	4
ENL	231	Technical Report Writing[6]	3				
		TOTAL CREDITS	**17**			**TOTAL CREDITS**	**14**

HOURS REQUIRED FOR GRADUATION: 63

Employment Opportunities:
- Hospitals
- Health Care Clinics
- Physicians' Office Laboratories
- Blood Donation/Collection Centers
- Reference Laboratories
- Medical Research Laboratories

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Pam Meadows, MT (ASCP) • Cabell Hall, Room 302
Phone: (304) 696-3749 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: meadow63@mctc.edu

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1. ENL 111 has a prerequisite of COM 095, ENL 095, ACT 18, or PLAC 101.
2. MAT 145 has a prerequisite of ACT 19, MAT 097, or PLAC 101.
3. SCI 220 has a prerequisite of MAT 145, MAT 145E, MAT 150, or MAT 150E.
4. AH 205 has a prerequisite of BIOL 257 or BSC 227.
5. AH 207 has a prerequisite of AH 151.
6. ENL 231 has a prerequisite of ENL 111, COM 111, COM 111E, ENG 101, or ENG 101E.
7. CLA 202 has a prerequisite of MAT 145.
8. CLA 203 has a prerequisite of BIOL 257 or BIOL 260.
9. CLA 205 has a prerequisite of BIOL 257, BIOL 260, or BIOL 265.
10. CLA 206 has a prerequisite of BIOL 257, BIOL 260, or BIOL 265.
11. CLA 299 requires completion of all previous CLA coursework with a minimum grade of "C", admission to CA/POCT program, and permission of program coordinator.

**In order to graduate from the A.A.S. CA program, students must maintain a minimum grade of "C" or better in all CLA courses. Should a student receive a "D" or "F" in any of the CLA courses, they will be allowed to repeat the course one time before dismissal from the program.*

DENTAL ASSISTANT
ASSOCIATE IN APPLIED SCIENCE

Program Description:
Dental Assistant Program is a cooperative effort between Marshall Community & Technical College and Putnam Career & Technical Center. Dental assistants perform a range of patient care, office and laboratory duties. They are an integral part of the dental office, acting as a second pair of hands for a dentist. Ultimately, their role is to make certain that the examination of a patient is performed efficiently. Almost all jobs for dental assistants are in dental offices.

Career Description:
Dental Assistants have many important duties in the dental office. They prepare the patient for treatment and obtain their dental records. During the examination of the patient, dental assistants hand instruments and materials to the dentist and keep the patient's mouth dry by using suction of other equipment. Other duties in the office include sterilizing and disinfecting instruments, preparing the instrument trays for dental procedures, and educating patients on oral health care.

Some dental assistants take x-rays, process the x-ray film, and prepare materials for impressions and restorations. They also may remove sutures and apply topical anesthetics to the gums. Those with laboratory duties make casts of teeth for impressions and make temporary crowns. Dental assistants with office duties schedule and confirm appointments, keep patient records, send bills, receive payments, and order supplies and materials.

Career Outlook:
Job prospects should be excellent. Employment of dental assistants is expected to grow much faster than the average for all occupations through 2016, due to population growth and greater retention of natural teeth by middle aged people and senior citizens. Additionally, numerous job openings will arise as recent dental school graduates replace the older dentists that were less likely to hire dental assistants.

You may also contact the American Dental Assistants Association at www.dentalassistant.org.

Salary Forecast:
Median hourly earnings of dental assistants were $15.57 in May 2008. The middle 50 percent earned between $12.97 and $18.73. The lowest 10 percent earned less than $10.71, and the highest 10 percent earned more than $22.19.

(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements:
Students seeking admission into the Dental Assistant program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information.

Employment Opportunities:
- Dental offices
- Dental clinics
- Dental laboratories
- Government offices
- Physicians' offices

DENTAL ASSISTANT
MAJOR CODE - CTA2

FIRST YEAR[1]

First Semester				Second Semester			
ENL	111	Written Communication	3	AH	220	Nutrition[2]	3
AH	151	Medical Terminology (EDGE)	3	COM	112	Oral Communication	3
MAT	145	Application in Algebra	3	AH	216	Pharmacology[2]	3
BIOL	257	Intro. to Anatomy & Physiology (EDGE)	3	SS	201	Human Relations	3
IT	101	Fundamentals of Computers (EDGE)	3	BIOL	210	Microbiology[3]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**15**
						TOTAL MCTC CREDITS	**30**

SECOND YEAR[4]

Third Semester[5]				Fourth Semester			
DA	241	Biomedical Science	4	DA	242	Dental Assisting Clinical Practice	3
DA	246	Dental Science	4	DA	250	Dental Specialties II	3
DA	248	Dental Terminology I	2	DA	245	DentalAssistingClinicalMentoring(Internship)	3
DA	247	Dental Specialties I	2	DA	251	Dental Technology II	3
DA	244	Dental Assisting General Studies	3	DA	249	Supervised Dental Assisting Experience	3
DA	243	Clinical Science	4				
		TOTAL CREDITS	**19**			**TOTAL CREDITS**	**17**
						TOTAL PCTC CREDITS	**36**

HOURS REQUIRED FOR GRADUATION: 66

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Adam Swolsky • Cabell Hall, Room 303
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolsky@mctc.edu
or
Debra McCallister, CDA, EFDA • Putnam Career and Technical Center
Phone: (304) 586-3494 ext. 209 • E-mail: dmccallister@access.k12.wv.us

1. All first year courses are offered at MCTC
2. AH 216 has a prerequisite of AH 151
3. BIOL 210 has a prerequisite of MAT 145 or MAT 150
4. Dental Assistant (DA) courses are delivered at Putnam Career and Technical Center at Eleanor, WV.
5. All third semester Dental Assistant (DA) courses must be completed with a “C” or better.

DENTAL LABORATORY TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:
One year of training at the Putnam Career and Technical Center (PCTC) and thirty-one hours credit at Marshall Community & Technical College will result in an Associate in Applied Science degree in Dental Laboratory Technology. Students will follow the Putnam County school calendar while completing the Dental Laboratory Technology courses, and attend the PCTC every day from 8:30 a.m.-3:00 p.m. during the technical portion of the program.

Career Outlook:
Dental Laboratory Technicians make and repair dental appliances such as dentures, crowns, and braces. Specializations are available in various aspects of the work prescribed by dentists and orthodontists: Crown and Bridge Technicians, Metal Dental Technicians, Partial Denture Technicians, Dental Ceramists and Orthodontic Technicians. Most dental laboratory technicians work in commercial dental laboratories employing 2 to 20 people. Employment opportunities are available in private dental offices, dental schools, hospitals, and companies that manufacture dental prosthetic materials.

Most job openings will arise from the need to replace technicians who transfer to other occupations or who leave the labor force. During the last few years, demand has arisen from an aging public that is growing increasingly interested in cosmetic prostheses. For example, many dental laboratories are filling orders for composite fillings that are the same shade of white as natural teeth to replace older, less attractive fillings.

Salary Forecast:
Median hourly earnings of dental laboratory technicians were $16.43 in May 2008. The middle 50 percent earned between $12.63 and $21.54 an hour. The lowest 10 percent earned less than $9.97, and the highest 10 percent earned more than $27.95 an hour.

Dental technicians in large laboratories tend to specialize in a few procedures and, therefore, tend to be paid a lower wage than those employed in small laboratories that perform a variety of tasks.

(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements for MCTC:
The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission into MCTC. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Admission Requirements for DLT program:
Students seeking admission into the Dental Laboratory Technology program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information.

Employment Opportunities:
- Dental labs
- Private dental offices
- Dental schools
- Dental labs that manufacture prosthetic materials

DENTAL LABORATORY TECHNOLOGY

MAJOR CODE - CD10

FIRST YEAR[1]	
First Semester[2]	**Second Semester**
DLT 101 Intro to Dental Technology[3] (EDGE) . . . . 6 (1st 9 weeks)	DLT 108 Partial Dentures (EDGE). . . . . .9 (1st 9 weeks)
DLT 104 Complete Dentures (EDGE) . . . . . .9 (2nd 9 weeks)	DLT 112 Inlays/Crowns/Bridges/Ceramics(EDGE)10 (2nd 9 weeks)
	DLT 116 Clinical Experience[4] (EDGE) . . . . . .1 (2nd 9 weeks)
TOTAL CREDITS. 15	**TOTAL CREDITS. 20**
SECOND YEAR	
Third Semester	**Fourth Semester**
AH 151 Medical Terminology (EDGE) 3	COM 112 Oral Communication 3
ENL 111 Written Communication 3	BIOL 257 Intro to Anatomy & Physiology (EDGE). . . 3
IT 101 Fundamentals of Computers (EDGE) . . .3	MAT 115 Business Mathematics 3
MG 101 Intro to Business (EDGE). 3	MG 202 Business Organization & Management[5] 3
SCI 120 Basics in Physical Science[6] 4	SS 215 Lifespan Psychology 3
TOTAL CREDITS. 16	**TOTAL CREDITS. 15**
HOURS REQUIRED FOR GRADUATION: 66	

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Adam Swolsky • Cabell Hall, Room 303
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolsky@mctc.edu
or
Jesse Smith • Putnam Career and Technical Center
Phone: (304) 586-3494 ext. 213

1. Dental Laboratory Technology courses are delivered at Putnam Career and Technical Center at Eleanor, WV
2. All first semester Dental Laboratory Technology courses must be completed with a “C” or better before student can register for second semester coursework.
3. DLT 101 has a prerequisite of admission to the Dental Laboratory Technology Program.
4. DLT 116 has a prerequisite of DLT 101, DLT 104, DLT 108 and co-requisite of DLT 112.
5. MG 202 has prerequisite of MG 101.
6. Physical Science election may be substituted for SCI 120 with permission.

HEALTH INFORMATION TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The health information technician is the professional responsible for maintaining components of health information systems in a manner consistent with the medical, administrative, ethical, legal, accreditation, and regulatory requirements of the health care delivery system. In all types of facilities, and in various locations within a facility, the technician possesses the technical knowledge and skill necessary to process, maintain, compile, and report data for reimbursement, facility planning, marketing, risk management, quality assessment, and research; to abstract and code clinical data using appropriate classification systems; and to analyze health records according to standards. The health information technician may be responsible for functional supervision of the various components of the health information system.

Within the 67 credit hours students must earn for the associate degree, 29 credit hours of health information technology classes are required. This includes 5 credit hours of directed practice where the students will practice their skills in a health information setting.

Career Outlook:

Job prospects should be very good. Employment of medical records and health information technicians is expected to grow much faster than the average for all occupations through 2012, due to rapid growth in the number of medical tests, treatments, and procedures that will be increasingly scrutinized by third-party payers, regulators, courts, and consumers (www.bls.gov).

Salary Forecast:

Median annual earnings of medical records and health information technicians were $25,590 in 2004. The middle 50 percent earned between $20,650 and $32,990. The lowest 10 percent earned less than $17,720, and the highest 10 percent earned more than $41,760. Median annual earnings in the industries employing the largest numbers of medical records and health information technicians in 2004 were as follows:

General medical and surgical hospitals	$26,640
Nursing care facilities	$26,330
Outpatient care centers	$23,870
Offices of physicians	$22,130

(Information obtained from Occupational Outlook Handbook, 2006-2007)
You may also contact the American Health Information Association at (312) 787-2672 or www.ahima.org.

Admission Requirements:

1. Completion of the first year of course work with a grade point average of 2.5 or above with a grade of at least C in all courses.
2. Completion of a minimum of 20 hours of observation in a health information management department of a health care facility.
3. Applications will be accepted from January 1 of each year for the upcoming fall semester. Admission to the program will be granted starting in May. This is a limited enrollment program.
4. Students seeking admission into the Health Information Technology program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information.

Accreditation Information:

The Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (www.cahiim.org).

Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)
Accreditation Services
233 N. Michigan Ave, 21st Floor
Chicago, IL 60601-5800
www.cahiim.org

Employment Opportunities:

- Acute care facilities
- Long-term care facilities
- Insurance companies
- Rehabilitation centers
- Physicians' offices
- Medical transcription
- Ambulatory care facilities
- State and local health departments
- Sales representatives for health information supplies
- Professional billing companies
- Attorneys' offices

HEALTH INFORMATION TECHNOLOGY

MAJOR CODE - CH10

FIRST YEAR[1]

Fall Semester				Spring Semester			
AH	151	Medical Terminology (EDGE)	3	AAT	253	Medical Transciption[1]	3
ENL	111	Written Communication	3	BIOL	260	Applied Human Anatomy	4
MAT	150	Applied Professional Mathematics	3	COM	112	Oral Communication	3
SS	215	Lifespan Psychology	3	IT	101	Applied Human Physiology	3
		Approved Elective	3	LAS	248	Medical Law[2]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**17**

SECOND YEAR[3,4]

Fall Semester (HIT Classes Offered in Fall Only)				Spring Semester (HIT Classes Offered in Spring Only)			
AH	216	Basic Pharmacology[5]	3	HIT	202	Health Information Technology II[6]	3
HIT	201	Health Information Technology[6]	3	HIT	202L	Health Information Technology II Lab	1
HIT	201L	Health Information Technology I Lab	1	HIT	204	Advanced Coding Concepts	4
HIT	203	Basic ICS-9-CM Coding	4	HIT	208	Quality Improvement in Healthcare	2
HIT	206	Hospital Rates & Percentages	2	HIT	215	Directed Practice II[8,10]	2
HIT	210	Computer Health Information Systems	2	MA	205	Medical Office Claims Procedure	4
HIT	214	Directed Practice I[7,8]	1				
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**15**

Summer Intercession

HIT	212	Health Information Technology[11]	2	HIT	218	Directed Practice III[8,12]	2

HOURS REQUIRED FOR GRADUATION: 67

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Janet B. Smith • Cabell Hall, Room 210
Phone: (304) 696-3048 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: smithjan@mctc.edu

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1. AAT 253 has prerequisite of AAT 136 and AH 151.
2. The LAS 248 prerequisite of LAS 101 is waived for Health Information Technology program majors. Please see advisor.
3. Application Process for Health Information Technology: File a Marshall University application provided by the Office of Admission. File a Health Information Technology program application provided by the HIT program coordinator in the spring of the first year in the program prior to starting classes in the fall. Submit a complete HIT Observation Form verifying a minimum of 20 hours of observation.
4. Academic Policy for Health Information Technology: Each HIT course must be completed with a grade of C or better. Students earning a grade of less than C in an HIT course must repeat the course. Evidence of a current satisfactory health record must be submitted prior to participation in the Directed Practice Experience. Students are responsible for transportation to and from the Directed Practice sites.
5. AH 216 has a prerequisite of AH 151.
6. HIT 201 and HIT 202 have respective co-requisites of HIT 201L and HIT 202L.
7. HIT 214 has a co-requisite of HIT 201.
8. HIT 214, 215 and 218 should be taken in sequence.
9. AH 205 has a prerequisite of BIOL 260.
10. HIT 215 has a co-requisite of HIT 202.
11. HIT 212 has a prerequisite of HIT 201, 201L, 202, 202L, 203, 204, 206, 208, and 210.
12. HIT 218 has prerequisite of HIT 215.

HEALTH SCIENCE
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Health Science A.A.S. program is a unique opportunity for students holding a national certification in a professional field to build on that experience and earn an associate degree. The associate degree often allows students greater flexibility in their chosen field of study and opportunities for advancement in their jobs. Health Science A.A.S. graduates have a wide range of career options within the health science industries. Graduates work in professional, scientific, or technical services firms. Health Science graduates also work in education services, Federal, State, and local governments, or pharmaceutical and medicine manufacturing.

The A.A.S. Health Science Degree includes a minimum of 21 general education credits, at least 9 allied health and/or life science credits and a maximum of 30 credits earned through national certification. The credits earned through national certification can be from a variety of careers, including but not limited to medical records, phlebotomy, patient care technician, certified nurse assistant, massage therapy, cardiovascular technician, EKG technician, DOT drug testing, and many more.

Career Outlook:

According to the United States Department of Labor, the employment projection on the average for all Health Science professions is expected to grow as fast as other occupations. However, selective specialties within this field are expected to grow faster.

Salary Forecast:

Hourly wage for Health Science Technicians, averages over $8.00 to $35.00/hour with benefits depending on certification.
(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements:

1. MCTC is an open enrollment institution. Please contact Student Services Division at (304) 696-6282 for specific admission requirements.
2. Applicants must complete all general education and prerequisite courses with a grade of “C” or better, and must have a cumulative GPA or 2.0 or higher.

HEALTH SCIENCE
MAJOR CODE - CH70

General Education[1]				Allied Health Elective (9 hours minimum)			
				Suggested courses include:			
BIOL	257	Intro to Anatomy & Physiology[2]	3	EME	105	Basic Life Support	3
COM	112	Oral Communication	3	AH	205	Principles of Disease	4
IT	101	Fundamentals of Computers (EDGE)	3	AH	207	Infection Control for Health Professionals	4
ENL	111	Written Communications I	3	AH	151	Medical Terminology	3
MAT		Elective	3	AH	217	Personal Fitness Training	4
		General Education Elective	3	AH	220	Basic Nutrition	3
		Humanities or Social Science Elective	3	AH	216	Basic Pharmacology	3
		TOTAL CREDITS	**21**			**TOTAL CREDITS**	**9 hours minimum**

HOURS REQUIRED FOR GRADUATION: 60

Nationally Certified Credentialed Area of Emphasis: 15-30 credit hours[1]

Employment Opportunities:
- EMT
- Clinical Laboratory (MLT, HT, Phleb)
- EKG Tech
- Massage Therapy
- Nursing (CNA, LPN, PCT, PCS)
- Pharmacy Technician
- Radiology Technology
- Respiratory Therapy
- Surgical Technology
- Ophthalmic Technician
- Ultrasound
- Veterinary Technician

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Adam Swolsky • Cabell Hall, Room 304
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolsky@mctc.edu

1. Equivalency hours based on the WV Board of Governor's Credit Equivalency Guidelines: "Summary of credit awards for certified credentials," or credit recommendation from the American Council for Education.
2. BIOL 257 or suitable substitute

MASSAGE THERAPY
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The A.A.S. degree in Massage Therapy is a cooperative program through Marshall Community & Technical College and Mountain State School of Massage in Charleston. Licensed Massage Therapists (LMTs) offer a range of services from relaxation massage to precise clinical soft tissue treatment. Massage techniques can release scar tissue, increase joint range of motion, enhance circulation of blood and lymph and increase the supply of oxygen and nutrients to cells, eliminating toxic waste products resulting in a healthier person. A holistic approach to massage therapy integrates an understanding that there are physical, mental, emotional and spiritual components to each individual. LMTs are currently employed through private practice, chiropractic offices, hospitals, health clubs, day spas, cruise ships, fitness centers, beauty salons and more.

Career Outlook:

Nationally, the number of jobs for massage therapists is expected to grow faster than average through the year 2012 (www.bls.gov).

Many factors will affect this growth. More people are becoming interested in massage as a way to relieve stress and promote health. As disposable incomes grow, many people will seek massages for personal benefit. There will also be growth in full-service spa salons. These salons offer services such as beauty wraps, pedicures, and massages in addition to traditional hair and makeup services. Many employees will be needed to offer a range of services.

The medical benefits of massage are becoming more widely known. As a result, more naturopaths, acupuncturists, chiropractors, physical therapists, and physicians will refer their patients to massage therapists. However, this will depend somewhat on if massage therapy is covered by health insurance plans. In addition, an aging population will increase the number of people with conditions that can benefit from massage therapy.

Salary Forecast:

Median hourly earnings of massage therapists, including gratuities earned, were $16.78 in May 2008. The middle 50 percent earned between $11.36 and $25.14. The lowest 10 percent earned less than $8.01, and the highest 10 percent earned more than $33.47. Generally, massage therapists earn 15 to 20 percent of their income through gratuities. For those who work in a hospital or other clinical setting, however, tipping is not common.

(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements:

Students seeking admission into the Massage Therapy program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information.

Accreditation Information:

Mountain State School of Massage is accredited through:

The Commission on Massage Therapy Accreditation (COMTA)
1007 Church Street, Suite 302
Evanston, Illinois 60201
(847) 869-5039 or (847) 869-6739
www.comta.org

MASSAGE THERAPY

MAJOR CODE - CM70

Marshall Community & Technical College				Mountain State School of Massage		
Allied Health Courses				**Coursework in Massage Therapy**[2,3]		
ENL	111	Written Communication	3	MAS	205	Anatomy & Phys. for Massage Therapy	11
COM	112	Oral Communication	3	MAS	210	Orientation, Awareness Skills, Bus.&Res.	4
IT	101	Fundamentals of Computers (EDGE)	3	MAS	215	Bodywork I	6
MAT	150	Applied Professional Mathematics	3	MAS	220	Bodywork II	5
SCI	201	Integrated Science[1]	4	MAS	225	Pathology for Massage Therapy	5
SS	215	Lifespan Psychology	3	MAS	230	Kinesiology for Massage Therapy	7
				MAS	235	Student Clinic Integrative Massage	3-4
TOTAL CREDITS			**19**	**TOTAL CREDITS**			**41-42**

HOURS REQUIRED FOR GRADUATION: 60-61

Employment Opportunities:

- Doctors' offices
- Chiropractors' offices
- Hospitals
- Physical therapy offices
- Medical clinics
- Massage therapy practices

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Adam Swolsky • Cabell Hall, Room 303
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolsky@mctc.edu
or
Kellie Ray, Admission Director • Mountain State School of Massage
Phone: (304) 926-8822

1. SCI 201 has a prerequisite of MAT 150.
2. Massage Therapy courses are delivered at Mountain State School of Massage.
3. All first semester Massage Therapy courses must be completed with a "C" or better before students can register for subsequent Massage Therapy courses.

MEDICAL ASSISTANT
ASSOCIATE IN APPLIED SCIENCE

Program Description:

Medical Assistants are Allied Health professionals who assist physicians in their offices or other medical settings. In accordance with respective state laws, they perform a broad range of administrative and clinical duties, as indicated by the American Association of Medical Assistants recent role delineation study. The Marshall Community & Technical College Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE).

Administrative duties include scheduling and receiving patients, preparing and maintaining medical records, performing basic secretarial skills and medical transcription, handling telephone calls and written correspondence, serving as a liaison between the physician and other individuals, and managing practice finances. Clinical duties include asepsis and infection control, taking patient histories and vital signs, performing first aid and CPR, preparing patient for procedures, assisting the physician with examinations and treatments, collecting and processing specimens, performing selected diagnostic tests, and preparing and administering medications as directed by the physician.

Both administrative and clinical duties involve maintenance of equipment and supplies for the practice. A medical assistant who is sufficiently qualified by education and/or experience may be responsible for supervising personnel, developing and conducting public outreach programs to market the physician's professional services, and participating in the negotiation of leases and of equipment and supply contracts.

Career Outlook:

Employment of medical assistants is expected to grow much faster than the average for all occupations through the year 2012 as the health services industry expands because of technological advances in medicine and a growing and aging population. Increasing utilization of medical assistants in the rapidly-growing health care industries will result in fast employment growth for the occupation. In fact, medical assistants are projected to be the fastest growing occupation through 2012 (www.bls.gov).

Salary Forecast:

The earnings of medical assistants vary, depending on their experience, skill level, and location. Median annual earnings of medical assistants were $24,610 in May 2004. The middle 50 percent earned between $20,650 and $28,930. The lowest 10 percent earned less than $18,010, and the highest 10 percent earned more than $34,650. Median annual earnings in the industries employing the largest numbers of medical assistants in May 2004 were:

Colleges, universities, and professional schools	$27,490
Outpatient care centers	$25,360
General medical and surgical hospitals	$25,160
Offices of physicians	$24,930
Offices of other health practitioners	$21,930

(Information obtained from Occupational Outlook Handbook, 2006-2007)

Admission Requirements:

Students seeking admission into the Medical Assistant program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information.

1. Completion of the first year general and support courses with a 2.5 or better GPA with at least a C in all MA courses;
2. CPR certification (EME 105);
3. Physical exam with proper documentation of vaccinations, prior to internship.

Applications will be accepted beginning January 1 each year for the upcoming fall semester. Admission to the program will be granted starting in May. This is a limited enrollment program. For additional information about careers as a Medical Assistants, visit the American Association of Medical Assistants web site at www.aama-ntl.org.

Accreditation Information:

The Medical Assistant Program is accredited by the:

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
1361 Park Street • Clearwater, FL 33756 • (727) 210-2350

MEDICAL ASSISTANT
MAJOR CODE - CM30

FIRST YEAR[1]

Fall Semester				Spring Semester			
AAT	136	Intro to Word Processing (EDGE)	3	AAT	253	Medical Transcription[2]	3
AH	151	Medical Terminology (EDGE)	3	AH	220	Basic Nutrition	3
ENL	111	Written Communication	3	BIOL	257	Intro to Anatomy & Physiology (EDGE)	3
EME	105	First on Scene	3	COM	112	Oral Communication	3
IT	101	Fundamentals of Computers (EDGE)	3	IT	150	Applications to Spreadsheets[3] (EDGE)	3
MAT	115	Business Mathematics	3	SS	215	Lifespan Psychology	3
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**18**

SECOND YEAR

Fall Semester				Spring Semester			
MAS	206	Medical Office Procedures[4]	3	AH	216	Basic Pharmacology[9]	3
HIT	201	Health Information Technology[5,6]	3	MA	202	Medical Assisting Techniques II[10]	4
HIT	201L	Health Information Technology I Lab	1	MA	203	Medical Lab Techniques	3
LAS	248	Medical Law[7]	3	MA	205	Medical Office Claims Procedures	3
MA	201	Medical Assisting Techniques I[8]	3				
MA	204	Physician's Office Medical Coding	3				
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**13**

Summer

MA	207	Medical Office Internship[11]	3

HOURS REQUIRED FOR GRADUATION: 68

Employment Opportunities:
- Physicians' offices
- Clinics
- Hospitals
- Any other type of healthcare setting

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Janet Smith • Cabell Hall, Room 210
Phone: (304) 696-3048 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: smithjan@mctc.edu

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1. Students must maintain a 2.5 GPA in the first year of course work.
2. AAT 253 has a prerequisite of AAT 136 & AH 151.
3. IT 150 has a prerequisite of IT 101.
4. AAT 265 has a prerequisite of AAT 136.
5. HIT 201 has a prerequisite of admission to the Medical Assisting Program. Please see advisor.
6. HIT 201 has a co-requisite of HIT 201L
7. The LAS 248 prerequisite of LAS 101 will be waived for Medical Assistant Program majors. Please see advisor.
8. Prerequisite: Admission to MA program. Student should apply in the spring semester prior to taking MA courses.
9. AH 216 has a prerequisite of AH 151.
10. MA 202 has a prerequisite of MA 201.
11. MA 207 has a prerequisite of MA 201, MA 202, MA 203, MA 204, and MA 205.

PARAMEDIC SCIENCE
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Emergency Medical Technician-Paramedic (EMT-Paramedic) is a specialist in the pre-hospital care of the sick and injured. This person bridges the gap between the emergency room physician and the critical patient in the out-of-hospital setting. Paramedics provide emergency medical treatment and stabilization, rescue of persons entrapped in life-threatening situations, transportation of critical patients to specialized treatment facilities, support and assistance to fire and law enforcement agencies, and public education and safety training to target populations.

The student completing an Associate in Applied Science Paramedic Degree will complete in addition to the Paramedic courses, general education courses that will better prepare the student to enter the workforce and progress to competitive job markets and management positions.

The EMT-Paramedic Associate Degree program is an intense program designed for individuals involved in both career and volunteer aspects of the Emergency Medical Services realm. The program consists of classroom lectures, practical labs and approximately 400 hours of clinical internships, as well as core courses and EMS courses specifically designed for EMS professionals. Students will be eligible to sit for the National Registry of Emergency Medical Technicians Paramedic Examination after completion of the Paramedic Science (Certificate) Program only if the student has maintained a letter grade of “C” or higher in all Paramedic Science (Certificate) courses and credit “CR” in all Paramedic Clinical courses.

Students approved for program admission in the academic year 2009-10 will begin core coursework for the Paramedic Program (Associate of Applied Science and Fast Track) in the fall of 2009.

Career Outlook:

Employment of emergency medical technicians and paramedics is expected to grow faster than the average for all occupations through 2012. Population growth and urbanization will increase the demand for full-time paid EMTs and Paramedics rather than for volunteers. In addition, a large segment of the population—the aging baby boomers—will further spur demand for EMT services as they become more likely to have medical emergencies. There will still be demand for part-time, volunteer EMTs and paramedics in rural areas and smaller metropolitan areas. In addition to those arising from job growth, openings will occur because of replacement needs.

Salary Forecast:

Earnings of EMTs and paramedics depend on the employment setting and geographic location as well as the individual’s training and experience. Median annual earnings of EMTs and paramedics were $27,070 in May 2006. The middle 50 percent earned between $21,290 and $35,210. The lowest 10 percent earned less than $17,300, and the highest 10 percent earned more than $45,280. Median annual earnings in the industries employing the largest numbers of EMTs and paramedics in May 2006 were:

Local government	$32,140
General medical and surgical hospitals	$30,400
Ambulatory health care services.	$26,740

(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements:

Students seeking admission into the Paramedic Science program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information.

Students must be EMT-B certified and maintain EMT-B certification as prerequisite for admission to and continuation in the program.

PARAMEDIC SCIENCE
MAJOR CODE - CP30

FIRST YEAR[1,2,3]

Fall Semester[2]				Spring Semester			
ENL	111	Written Communication	3	BIOL	258	Principles of Anatomy & Physiology	4
IT	101	Fundamentals of Computers (EDGE)	3	COM	112	Oral Communication	3
MAT	150	Applied Professional Mathematics	3	EME	109	Emergency Medical Technician (EDGE)	6
SS	201	Human Relations	3	EME	109L	Emergency Medical Technician Lab (EDGE)	1
		TOTAL CREDITS	**12**			**TOTAL CREDITS**	**14**

SECOND YEAR[2,3,4,5]

Fall Semester				Spring Semester			
PAR	130	Intro to EMS Systems	3	PAR	220	Cardiovascular Emergencies	4
PAR	210	Patient Assessment & Airway	2	PAR	221	OB/GYN/Neonatal/PediatricEmergencies	2
PAR	211	Principles of Trauma Management	2	PAR	230	Pre-Hospital Care Considerations	2
PAR	212	Pre-Hospital Pharmacology	2	PAR	231	Medical Emergencies	4
PAR	241	Advanced Paramedic Skills Lab I	3	PAR	242	Advanced Paramedic Skills Lab II	3
PAR	251	Paramedic Clinic[4]	3	PAR	252	Paramedic Clinical II[4]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**18**

Summer Semester			
PAR	125	Rescue Operations	3
PAR	243	Advanced Paramedic Skills Lab III	3
PAR	253	Paramedic Clinical III[4]	3
		TOTAL CREDITS	**9**

HOURS REQUIRED FOR GRADUATION: 68

Employment Opportunities:
- Hospitals
- Emergency medical service providers
- Private corporations
- Governmental agencies
- Aeromedical flight services
- Industry

Those in emergency medical services who are part of fire or police departments receive the same benefits as firefighters or police officers. For example, many are covered by pension plans that provide retirement at half pay after 20 or 25 years of service or if the worker is disabled in the line of duty.

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Edward Bays • Cabell Hall, Room 211
Phone: (304) 696-4870 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: bays@mctc.edu

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1. Students move through paramedic coursework in sequence, beginning with the First Semester (Fall) coursework.
2. Students must receive a letter grade of “C” or higher in “PAR” courses to be eligible to graduate from the program.
3. Clinical Grades will be given on a Credit/Non-Credit basis. Students must earn a credit grade in all “PAR” clinical courses to be eligible to graduate from the program.
4. Students who at anytime during the program earn a letter grade below a “C” in “PAR” courses or receive a non-credit in “PAR” clinical courses will be dismissed from the program.
5. Students who at anytime during the program earn a letter grade below a “C” in “PAR” courses or receive a non-credit in “PAR” clinical courses will be dismissed from the program.

PHARMACY TECHNICIAN
ASSOCIATE IN APPLIED SCIENCE

Program Description:

Pharmacy technicians help licensed Pharmacists provide medication and other health care products to patients. Technicians usually perform routine tasks to help prepare prescribed medication, such as counting tablets and labeling bottles. They also perform administrative duties, such as answering phones, stocking shelves, and operating cash registers. Technicians refer any questions regarding prescriptions, drug information, or health matters to a pharmacist.

Pharmacy technicians who work in retail or mail-order pharmacies have varying responsibilities, depending on State rules and regulations. Technicians receive prescriptions or requests for prescription refills from patients. They must verify that information on the prescription is complete and accurate. To prepare a prescription, technicians must retrieve, count, pour, weigh, measure, and sometimes mix the medication. Then, they prepare the prescription labels, select the type of prescription container, and affix the prescription and auxiliary labels to the container. Once the prescription is filled, technicians price and file the prescription, which must be checked by a pharmacist before it is given to the patient. Technicians may establish and maintain patient profiles, prepare insurance claim forms, and stock and take inventory of prescription and over-the-counter medications. In hospitals, nursing homes, and assisted-living facilities, technicians have responsibilities, including reading patients' charts and preparing the appropriate medication.

The A.A.S. Pharmacy Technician Degree includes a total of 65credit hours, of which 31 credit hours are Pharmacy Technician specific courses. Successful completion of the PHT program will include a clinical internship at an affiliated health-care and retail facility. Many states require licensure in order to perform pharmacy technician work .The West Virginia Board of Pharmacy currently requires licensure of all pharmacy technicians. Upon completion of the PHT program, graduates will be eligible to sit for the national board examination.

Career Outlook:

According to the United States Department of Labor, "Employment or pharmacy technicians is expected to increase by 32% from 2006 to 2016, which is much faster than the average for all occupations." In WV, the job outlook is similarly positive with an annual projected increase of 2.28% over the next 10 years to reach an overall 22.1% increase. (www.workforcewv.org)

Salary Forecast:

Hourly wage for Pharmacy Technicians, retail, hospital and private employment averages over $15.00/hour with benefits. Specialized training and national certification may earn more due to flexibility and adaptability to various practice sites.

(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements:

1. Completion of Pharmacy Technician admission packet, which may be found in the Allied Health and Life Sciences Division.
2. Applicants must complete all general education and prerequisite courses with a grade of "C" or better, and must have a cumulative GPA of 2.0 or higher.
3. Proof of medical insurance coverage is required for internship.
4. Prior to internship, students must submit proof of Tuberculosis testing and Hepatitis B vaccination, or sign a waiver refusing vaccination.
5. Some clinical facilities may require random drug screen testing or background checks prior to acceptance into internship.
6. The PHT program is a limited enrollment program. program admission for the upcoming fall semester will be granted beginning in june.
7. Admission packets may be obtained from the Allied Health Division Office, Cabell Hall 314.

Additional Requirements:

- In order to graduate from the A.A.S. PHT program, students must maintain a minimum grade of "C" or better in all PHT courses. They will be allowed to repeat the course one time before dismissal from the program.
- The cost of tuberculosis testing, vaccinations, and background checks are the responsibility of the student.
- Students are responsible for room and board, as well as transportation during clinical internship.

PHARMACY TECHNICIAN
MAJOR CODE - CP70

FIRST YEAR[1]

Fall Semester[2]				Spring Semester			
ENL	111	Written Communication	3	AH	216	Basic Pharmacology[1]	3
AH	151	Medical Terminology	3	AH	205	Principals of Disease[1]	4
IT	101	Fundamentals of Computers (EDGE)	3	AH	207	Infection Control for Health Professionals[1]	4
MAT	145	(or MAT 133) Applications in Algebra	3	SS	215	Lifespan Psychology	3
BIOL	257	Intro to Anatomy & Physiology	3			General Education Elective	3
COM	112	Oral Communication	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**17**

SECOND YEAR[2,3]

Fall Semester				Spring Semester			
PHT	201	Intro to Pharmacy Technician	3	PHT	250	Pharmacy Practice II (1st)	2
PHT	204	Pharmacy Practice I	3	PHT	260	Pharm Tech Practice Mgmt (1st)	2
PHT	206	Pharmacy Calculations	3	PHT	290	Pharm Tech Experimental Training (2nd)	6
PHT	208	Sterile Products (1st)	2	PHT	270	Point of Care for Pharm Tech (1st)	4
PHT	280	Pharmacology for PHT (2nd)	2				
		General Education Elective	3				
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**14**

HOURS REQUIRED FOR GRADUATION: 65

Employment Opportunities:
- Hospitals
- Health Care Clinics
- Physician's Office Laboratories
- Reference Laboratories

Those in emergency medical services who are part of fire or police departments receive the same benefits as firefighters or police officers. For example, many are covered by pension plans that provide retirement at half pay after 20 or 25 years of service or if the worker is disabled in the line of duty.

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Heidi Romero • Cabell Hall, Room 304
Phone: (304) 696-6270 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: romeroh@mctc.edu

1. Required prerequisite of AH 151
2. Admission into the PHT program requires a "C" or better in all classes.
3. Admission into the second year PHT classes requires admission into the PHT program or permission of the PHT program coordinator.

PHYSICAL THERAPIST ASSISTANT
ASSOCIATE IN APPLIED SCIENCE

Program Description:

Physical Therapist Assistants (PTA) are educated, skilled health care workers who work under the supervision of a Physical Therapist (PT). PTA's assist in implementing physical therapy interventions in accordance with an established plan of care. Physical Therapist Assistants perform various treatment procedures which may involve the therapeutic use of water, massage, ultrasound, and the thermal properties of light and electricity to promote healing and relieve pain. The assistant also implements exercise programs designed for the restoration of strength, endurance, coordination, relaxation, and range of motion.

The program is designed to facilitate problem-solving, critical thinking, group interaction and improved self-assessment skills. The program is designed in a 1 + 1 curricular format. The first year's general prerequisite courses total 32 credit hours, focusing on General Studies. Students receive foundational courses in functional human anatomy and neuroanatomy.

Through selective admissions, students are admitted into the second year of the program. This year consists of Physical Therapist Assistant technical education courses. Second-year courses include a comprehensive curriculum in adult, orthopedic, pediatric and spinal cord rehabilitation. Student will be required to complete 720 hours of full-time clinical education. The costs of clinical education (travel, housing, incidentals) are the responsibility of the student.

Career Outlook:

Employment of Physical Therapist Assistants is expected to grow much faster than the average through the year 2012. The impact of proposed Federal legislation imposing limits on reimbursement for therapy services may adversely affect the short-term job outlook for PTAs. However, over the long run, demand for PTAs and aides will continue to rise in accordance with growth in the number of individuals with disabilities or limited function. The growing elderly population is particularly vulnerable to chronic and debilitating conditions that require therapeutic services. These patients often need additional assistance in their treatment, making the roles of assistants vital. The large baby-boom generation is entering the prime age for heart attacks and strokes, further increasing the demand for cardiac and physical rehabilitation. In addition, future medical developments should permit an increased percentage of trauma victims to survive, creating added demand for therapy services.

Salary Forecast:

Median annual earnings of physical therapist assistants were $41,360 in May 2006. The middle 50 percent earned between $33,840 and $49,010. The lowest 10 percent earned less than $26,190, and the highest 10 percent earned more than $57,220.

(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements:

Admission to the PTA Program is selective. Students seeking admission into the Physical Therapist Assistant program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available after October 15 from the Allied Health and Life Sciences Division, Cabell Hall Room 304. Students may contact the program offices to schedule an appointment at (304) 696-3008 or (304) 696- 3981, Application deadline is February 15. Applications are valid only for the noted academic year.

Accreditation:

The PTA program is accredited by the Commission of Accreditation in Physical Therapy Education of the American Physical Therapy Association (CAPTE). For additional information, contact the American Physical Therapy Association, Department of Accreditation at:
1 (800) 999-APTA or online at www.apta.org.

PHYSICAL THERAPIST ASSISTANT

MAJOR CODE - CP10

FIRST YEAR

Fall Semester				Spring Semester			
ENL	111	Written Communication	3	COM	112	Oral Communication	3
IT	101	Fundamentals of Computers (EDGE)	3	BIOL	221	Structural Kinesiology[2,13]	3
MAT	145	Applications in Algebra	3	BIOL	245	Physiology of Exercise[2,14]	3
BIOL	265	Applied Human Physiology[12]	3	SCI	110	Introduction to Physics[3]	4
BIOL	260	Applied Human Anatomy[11]	4			Social Science Requirment[1]	3
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**16**

Summer

PTA	100	Intro to Physical Therapy[4]	**3**

SECOND YEAR[10]

Fall Semester				Spring Semester			
PTA	110	Physical Therapy Modalities	2	PTA	200	Pathological Conditions	3
PTA	110L	Physical Therapy Modalities Lab[5]	1	PTA	220	Orthopedic Rehabilitation	3
PTA	120	Patient Care Skills	2	PTA	220L	Orthopedic Rehabilitation Lab	1
PTA	120L	Patient Care Skills Lab[5]	1	PTA	230	Adult Rehabilitation	3
PTA	130	Functional Anatomy & Procedures	3	PTA	230L	Adult Rehabilitation Lab	1
PTA	130L	Functional Anatomy & Procedures Lab[5]	1	PTA	240	Clinical Practice III[6,9]	4
PTA	140	Neuroanatomy and Physiology	3	PTA	250	Peds and Spinal Cord Rehabilitation	2
PTA	150	Clinical Practice I[6,7]	2	PTA	250L	Peds and Spinal Cord Rehabilitation Lab[6]	1
PTA	160	Clinical Practice II[6,8]	1	PTA	270	Physical Therapist Assistant Seminar[9]	1
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**19**

Summer

PTA	260	Clinical Practice IV[9]	**4**

HOURS REQUIRED FOR GRADUATION: 70

Employment Opportunities:

- Home health
- Rehabilitation hospitals
- Private practice offices
- Nursing homes
- Acute care hospitals
- Skilled nursing units
- Outpatient departments
- School systems

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Travis Carlton, PTA, M.S. • Cabell Hall, Room 208
Phone: (304) 696-3008 or 1-866-N-ROLLED (1-866-676-5533) • Email: carltont@mctc.edu

1. Social Science Requirement: Select from SS 201, SS 215, or PSY 100.
2. ESS 321 and ESS 345 have a prerequisite of ESS 201 (May be met by BSC 228).
3. SCI 110 has a prerequisite of MAT 145 (may be met by PHY 101/101L).
4. Admission to PTA program is a prerequisite to all PTA coursework.
5. All PTA Lab courses have PTA course co-requisites: PTA 110/PTA 110L; PTA 120/PTA 120L; PTA 130/PTA 130L; PTA 220/PTA 220L; PTA 230/PTA 230L and PTA 250/PTA 20L.
6. Clinical grades will be given on a credit/non-credit basis. The student will be required to pass each clinical. If the students does not pass the clinical, the student may be allowed to repeat the clinical one time. Failure on the repeat will result in program dismissal.
7. PTA 140 has prerequisites of completion of PTA 100, PTA 110, PTA 110L, PTA 120, PTA 120L, PTA 130, and PTA 130 L and PTA 160 with “C” or better.
8. PTA 150 has a prerequisite of PTA 140.
9. PTA 240 and PTA 260 have a prerequisite of completion of all PTA coursework with a grade of “C” or better.
10. Students are required to make a “C” or better in each course in the second year before graduating from the program. The student will be allowed to repeat a course one time before being dismissed from the program. Sequencing of courses and progression will be determined by the program faculty. If a student receives a “D” or “F” in more than one course, then the student is dismissed from the program.

11-14. The following courses are recommended if planning to seek advanced degree (see advisor before enrolling as course may not be transferable):
11. BIOL 260, 12. BIOL 265, 13. BIOL 221, 14. BIOL 245

RADIOLOGIC TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:
The Radiologic Technology Program is a cooperative effort between Marshall Community & Technical College (MCTC) and Collins Career Center (CCC). The student should complete or be enrolled in a pre-radiologic admission course before applying to the program.

Career Outlook:
Job opportunities are expected to be favorable. Some employers report difficulty hiring sufficient numbers of radiologic technologists and technicians. Imbalances between the demand for, and supply of, radiologic technologists and technicians should spur efforts to attract and retain qualified workers, such as improved compensation and working conditions. Radiologic technologists who also are experienced in more complex diagnostic imaging procedures, such as CT and MRI, will have better employment opportunities, brought about as employers seek to control costs by using multi-skilled employees.

Hospitals will remain the principal employer or radiologic technologists and technicians. However, a greater number of new jobs will be found in offices of physicians and diagnostic imaging centers. health facilities such as these are expected to grow rapidly through 2016, due to the strong shift toward outpatient care, encouraged by third-party payers and made possible by technological advances that permit more procedures to be performed outside the hospital. Some job openings also will arise from the need to replace technologists and technicians who leave the occupation.

Salary Forecast:
Median annual earnings of radiologic technologists and technicians were $52,210 in May 2008. The middle 50 percent earned between $42,710 and 63,010. The lowest percent earned less than $35,100, and the highest 10 percent earned more than $74,970.

(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements:
Prior to acceptance into the Radiologic Technology Program, a student must have completed the following:

- Prerequisite college courses. Courses may be completed at any post-secondary institution. For courses to qualify for the Associates of Applied Science degree in Radiologic Technology through Marshall University, they must be accepted and successfully transferred to MCTC. This transfer process is the sole responsibility of the student. A minimum of 12 hours must be taken directly on the MCTC campus to be granted the Associate's Degree. Transfer the following courses must be passed with a "C" or better: MAT 145 - College Algebra, ENL 111 - Written Communication, BIOL 257 - Human Anatomy, SS 215 - Lifespan Psychology.

- Minimum ACT score of 21 or
- Successful completion of the pre-entrance (WorkKeys) examination with a score of four in Locating for Information, and five in both Math and Reading for Comprehension.

High School and Post-secondary GPA are also weighted factors in the application process. Points will be awarded for the following:

- High School GPA of 3.0 or better
- College GPA of 2.5 or better
- Completion of College Chemistry or Physics with a grade of "C" or better

Admission requirements to Collins Career Center Radiologic Technology program may vary year to year.

RADIOLOGIC TECHNOLOGY

MAJOR CODE - CR10

FIRST YEAR[1,2]

Fall Semester[2,3,4]				Spring Semester[2,3,4]			
AH	151	Medical Terminology (EDGE)	3	COM	112	Oral Communication	3
BIOL	257	Introduction to Anatomy & Physiology	3	IT	101	Fundamentals of Computers (EDGE)	3
ENL	111	Written Communication	3	SCI	110	Introduction to Physics[5]	4
MAT	145	Applications in Algebra	3	SS	215	Lifespan Psychology	3
		TOTAL CREDITS	**12**			**TOTAL CREDITS**	**13**

SECOND YEAR[2,6]

Fall Semester				Spring Semester			
RS	201	Fundamentals of Radiographic Science	1	RS	208	Radiographic Procedures II/Lab II	4
RS	202	Patient Care	1	RS	209	Radiographic Science Pharmacology	2
RS	203	Ethics and Law	1	RS	221	Human Diversity for Radiologic Technology	3
RS	204	Radiographic Procedures I/Lab I	4				
RS	205	Clinical Practice I	5				
		TOTAL CREDITS	**12**			**TOTAL CREDITS**	**9**

THIRD YEAR

Fall Semester				Spring Semester			
RS	206	Radiobiology	2	RS	216	Computers in Radiologic Science	1
RS	207	Radiation Protection	2	RS	217	Imaging Equipment	2
RS	211	Radiation Production and characteristics	2	RS	218	Advanced Imaging Modality Seminar	0
RS	212	Imaging and processing/imaging Lab I	4	RS	219	Registry Review Seminar	0
RS	213	Radiographic Pathology	2				
RS	214	Imaging Lab II	1				
		TOTAL CREDITS	**13**			**TOTAL CREDITS**	**3**

HOURS REQUIRED FOR GRADUATION: 62

Employment Opportunities:

- Hospitals
- Clinics
- Commercial radiological laboratories
- Physicians' offices
- Mobile radiological services

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Adam Swolsky • Cabell Hall • Room 303
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail:swolsky@mctc.edu

1. Cooperative Degree between Marshall Community &Technical College and Collins Career Center.
2. Admissions requirements to Collins Career Center Radiologic Technology Program may vary from year to year. Please contact Adam Swolsky, MCTC, Program Coordinator at (304) 696-4645 for up-to-date admissions information.
3. Pre-Radiological Admission Courses are to be taken at Marshall Community & Technical College.
4. It is recommended that students complete AH 151, BIOL 260, SCI 110, and MAT 145 before application to the program.
5. SCI 110 has a prerequisite of MAT 145.
6. Admission to Radiologic Technology program is required before beginning second and third year RS courses. Students should contact Collins Career Center Radiology Program at 740-867-6641 for application information.

RESPIRATORY THERAPIST
ASSOCIATE IN APPLIED SCIENCE

Program Description:

Respiratory Therapy is an allied health program whose practitioners are employed under medical direction to provide treatment, management, diagnostic evaluation, and care to patients with problems associated with the cardiopulmonary system. Job responsibilities vary from the administration of oxygen, humidity and aerosols, the drainage of lung secretions, and the management of mechanical ventilation, to the use of technologically sophisticated monitoring devices and treatment techniques to enhance the survival of patients in intensive care units. Respiratory therapists may also perform pulmonary function testing.

The Respiratory Therapy Program is a cooperative effort between Collins Career Center and Marshall Community & Technical College. There are 30 semester credit hours required from Marshall Community & Technical College. The student may either complete the MCTC courses prior to application to the program or finish the courses while completing the Respiratory Therapy courses at Collins Career Center.

Career Outlook:

Job opportunities are expected to be very good, especially for respiratory therapists with cardiopulmonary care skills or experience working with infants. Employment of respiratory therapists is expected to increase faster than the average for all occupations through the year 2016 because of substantial growth in numbers of the middle-aged and elderly population—a development that will heighten the incidence of cardiopulmonary disease.

Salary Forecast:

Median annual earnings of respiratory therapists were $52,200 in May 2008. The middle 50 percent earned between $44,490 and $61,720. The lowest 10 percent earned less than $37,920, and the highest 10 percent earned more than $69,800. In general medical and surgical hospitals, median annual earnings of respiratory therapists were $52,870 in May 2008.

Median annual earnings of respiratory therapy technicians were $52,870 in May 2008. The middle 50 percent earned between $34,800 and $52,080. The lowest 10 percent earned less than $28,040 and the highest 10 percent earned more than $62,530. Median annual earnings of respiratory therapy technicians employed in general medical and surgical hospitals were $44,050 in May 2008.

(Information obtained from Occupational Outlook Handbook, 2008-2009)

Admission Requirements:

The Respiratory Therapy program has selective admissions each year. The first 24 eligible applications received will be admitted to the program. If admitted, there are 89-quarter hours of Respiratory Therapy courses to be completed at Collins Career Center. As part of the 89-quarter hours, the student will be required to complete clinical practice rotations at area health care facilities.

Employment Opportunities:

- Home health
- Skilled nursing homes
- Skilled nursing units within an acute care hospital
- Outpatient centers
- Rehabilitation hospitals
- Acute care hospitals
- Physicians' office

RESPIRATORY THERAPIST[1,2,3]

MAJOR CODE - CR20

FIRST YEAR

First Quarter[4]

AH	151	Medical Terminology (EDGE)	3
IT	101	Fundamentals of Computers (EDGE)	3
MAT	145	Applications in Algebra	3
RTT	110	Cardiopulmonary/Renal A&P	4
BIOL	257	Introduction to Anatomy & Physiology	3
		TOTAL CREDITS	**16**

Second Quarter

AH	226	Respiratory Therapy Pharmacology[5]	3
ENL	111	Written Communication	3
RTT	210	Respiratory Care Professional Strategies	3
BIOL	210	Microbiology[6]	3
SCI	220	Basic Chemistry[6]	3
SS	201	Human Relations	3
		TOTAL CREDITS	**18**

Third Quarter

COM	112	Oral Communication	3
RTT	101	Respiratory Care Procedures I	5
RTT	101L	Respiratory Care Procedures I Lab	2
RTT	102	Respiratory Care Physics	3
RTT	104	Cardiopulmonary/Renal A&P	4
CLIN	101	Clinical Practice I	2
		TOTAL CREDITS	**19**

Fourth Quarter

RTT	111	Cardiopulmonary Pathophysiology	4
RTT	202	Respiratory Care Procedures II	4
RTT	202L	Respiratory Care Procedures II Lab	2
CLIN	102	Clinical Practice II	4
		TOTAL CREDITS	**14**

SECOND YEAR

Fifth Quarter

RTT	103	Mechanical Vent Technology	3
RTT	103L	Mechanical Vent Technology Lab	2
RTT	201	Cardiopulmonary Rehab/Homecare	4
RTT	207	Cardiopulmonary/Renal A&P	4
CLIN	103	Clinical Practice III	4
		TOTAL CREDITS	**17**

Sixth Quarter

RTT	204	Mechanical Vent Technology	4
RTT	204L	Mechanical Vent Technology Lab	2
RTT	205	Neonatal/Pediatric Respiratory Care	4
CLIN	204	Clinical Practice IV	4
		TOTAL CREDITS	**14**

Seventh Quarter

RTT	206	Seminar/Board Review	4
CLIN	205	Clinical Practice V	4
		TOTAL CREDITS	**8**

Eighth Quarter

CLIN	206	Clinical Practice VI	8
		TOTAL CREDITS	**8**

MCTC HOURS: 30
COLLINS QUARTER HOURS: 84

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Adam Swolsky • Cabell Hall, Room 303
Phone: (304) 696-4645 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolsky@mctc.edu

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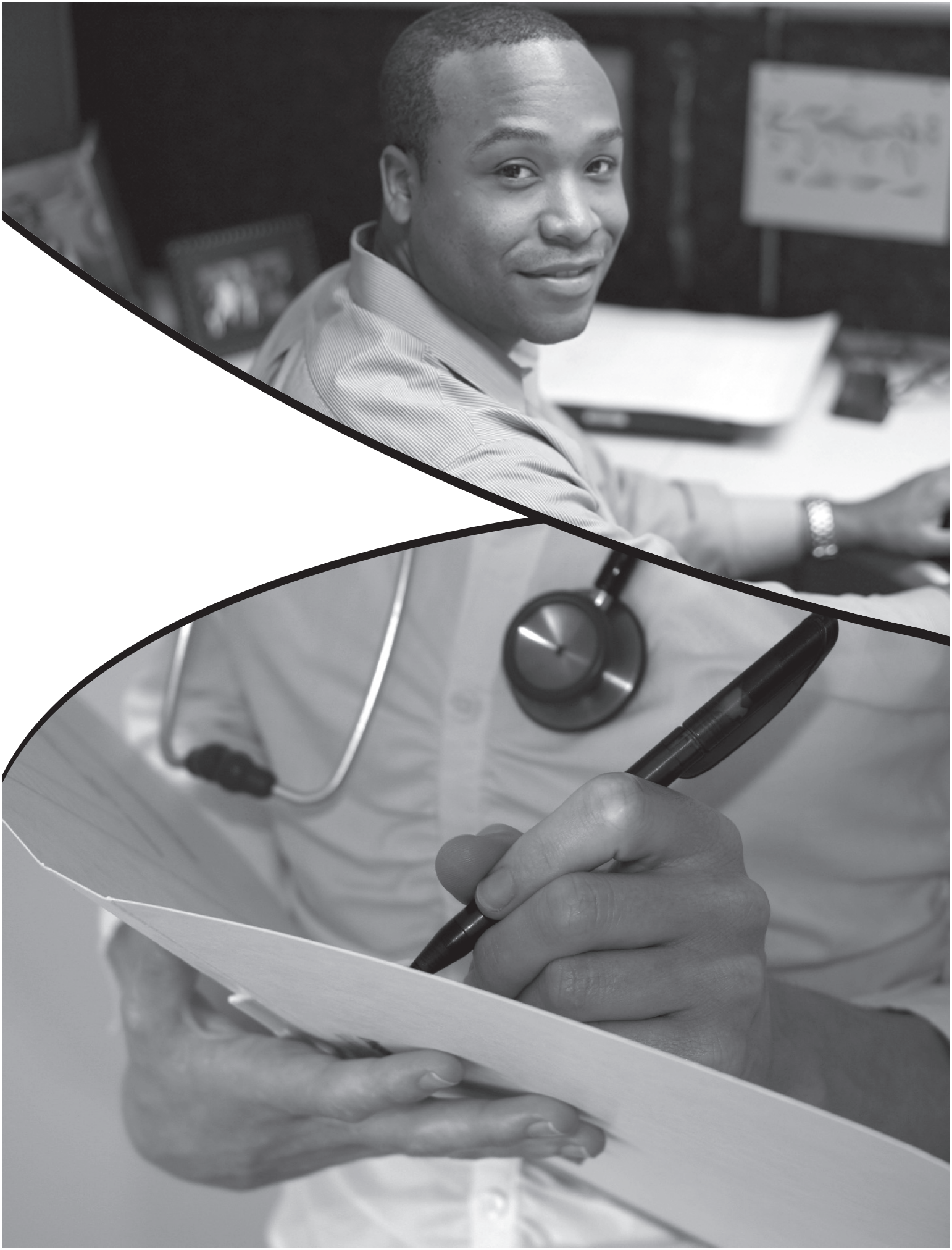
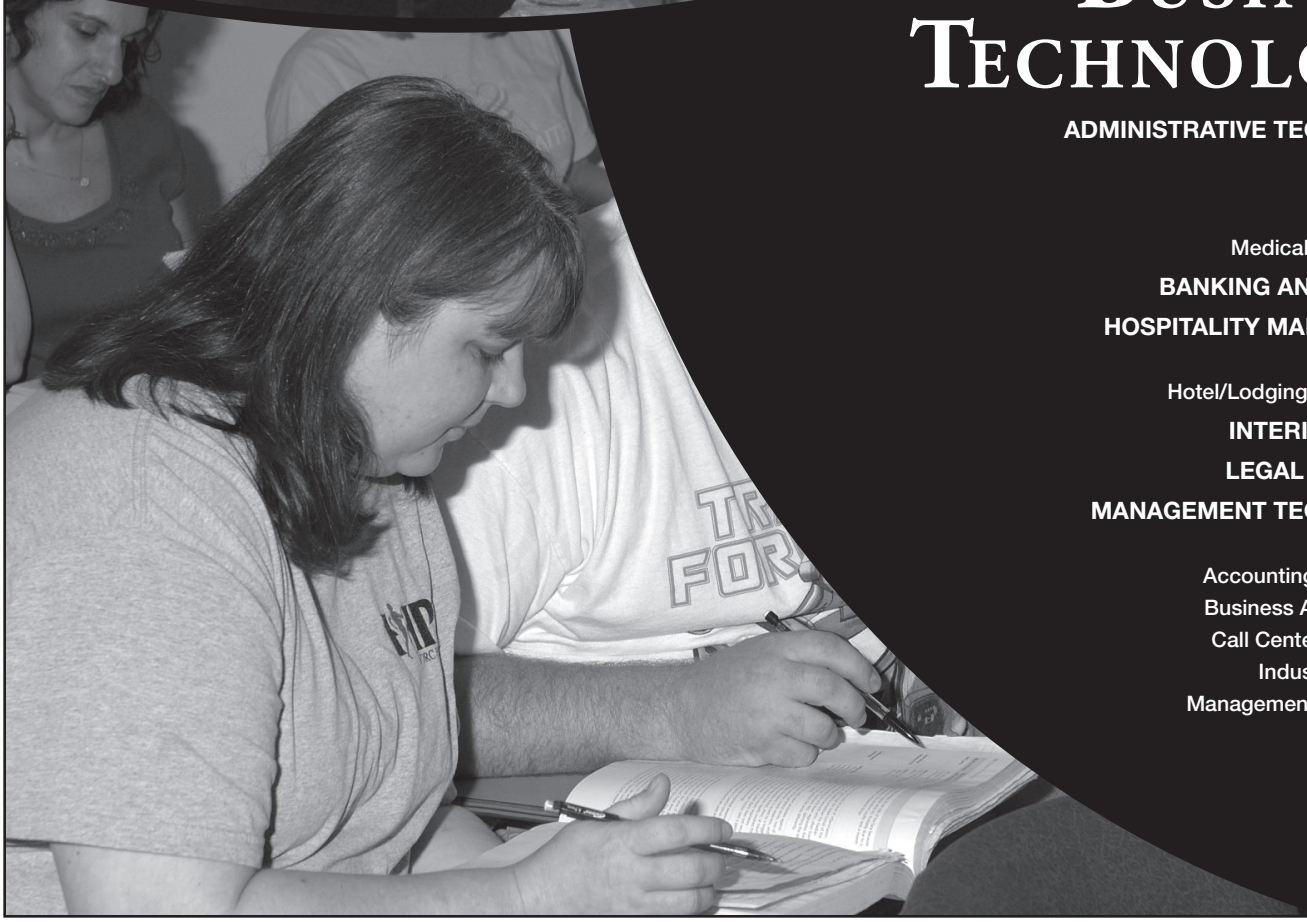
1. Cooperative degree between Marshall Community & Technical College and Collins Career Center.
2. Respiratory classes (RTT) have a prerequisite of admission to Respiratory Therapy Program and are taught by Collins Career Center faculty.
3. For information on admission to Respiratory Therapy program contact, Keith Terry at Collins Career Center (740) 867-6641 Ext. 411.
4. Students move through Respiratory Therapy coursework in sequence, beginning with first quarter coursework.
5. AH 226 has a prerequisite of admission to Respiratory Therapy program and AH 151.
6. BIOL 210 and SCI 220 have a prerequisite of MAT 145 or MAT 150.





Business Technology

ADMINISTRATIVE TECHNOLOGY
- Executive
- Legal
- Medical
- Medical Transcription

BANKING AND FINANCE

HOSPITALITY MANAGEMENT
- Culinary Arts
- Hotel/Lodging Management

INTERIOR DESIGN

LEGAL ASSISTANT

MANAGEMENT TECHNOLOGY
- Accounting
- Accounting Dual Degree
- Business Administration
- Call Center Supervision
- Industrial Manager
- Management Dual Degree

ADMINISTRATIVE TECHNOLOGY
EXECUTIVE
ASSOCIATE IN APPLIED SCIENCE

Program Description:
The Administrative Technology—Executive Option program maintains student learning as its main priority and is committed to excellence in a learning environment that emphasizes procedures in a business office, problem solving, and skilled use of computer business software applications to provide for workforce development, career preparation, and lifelong learning. The complexities of today's business offices have created the need for highly skilled employees who possess the knowledge and confidence necessary to handle a wide variety of administrative and office tasks. Upon completion of the Associate in Applied Science Degree in Administrative Assistant Technology—Executive Option, the graduate will be able to demonstrate knowledge that is specific to a business office and gain real-life experience through placement in a business office internship.

Career Outlook:
Secretaries and administrative assistants held about 4.2 million jobs in 2006, ranking among the largest occupations in the U.S. economy. The state of West Virginia has classified the administrative assistant field as being in "high demand" because the number of anticipated qualified employees is significantly lower than the number of expected job openings in the state. Projected employment of administrative assistants will vary by occupational specialty. Rapidly growing industries such as administrative/support services and professional/technical services will continue to generate most new job opportunities through 2016. In addition to those resulting from growth, numerous job openings will result from the need to replace workers who transfer to other occupations or leave this very large occupation for other reasons each year. The United States Bureau of Labor Statistics indicates that opportunities should be best for applicants with extensive knowledge of software applications.

Salary Forecast:
Median annual earnings of executive secretaries and administrative assistants were $37,240 in May 2006. The middle 50 percent earned between $30,240 and $46,160. The lowest 10 percent earned less than $25,190, and the highest 10 percent earned more than $56,740. Median annual earnings in the industries employing the largest numbers of executive secretaries and administrative assistants in May 2006 were:

Management of companies and enterprises	$41,570
Local government	$38,670
Colleges, universities, and professional schools	$36,510
Employment services	$35,830
State government	$31,600

Information obtained from Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2008-09 Edition, Secretaries and Administrative Assistants, on the Internet at http://www.bls.gov/oco/ocos151.htm (Visted May 5, 2009)

Program Admission Requirement:
The college adheres to an open admissions policy, which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Career Description:
As the reliance on technology continues to expand in offices, the role of the administrative assistant has greatly evolved. Office automation and organizational restructuring have led office professionals to assume responsibilities once reserved for managerial and professional staff. Many secretaries and administrative assistants now provide training and orientation for new staff, conduct research on the Internet, and operate and troubleshoot new office technologies. In spite of these changes, however, the core responsibilities for secretaries and administrative assistants have remained much the same: performing and coordinating an office's administrative activities and storing, retrieving, and integrating information for dissemination to staff and clients.

Accreditation
The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Administrative Technology-Executive degree program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

ADMINISTRATIVE TECHNOLOGY EXECUTIVE

MAJOR CODE - CO20 • CONCENTRATION CODE - CO25

FIRST YEAR[1]

First Semester				Second Semester			
AAT	136	Comprehensive Word Processing (EDGE)	3	AAT	114	Keyboarding II[1] (EDGE)	3
ENL	111	Written Communication	3	AAT	160	Intro to Presentation Software (EDGE)	3
IT	101	Fundamentals of Computers (EDGE)	3	AC	103	Introduction to Accounting	3
MAT	115	Business Mathematics	3	COM	112	Oral Communication	3
MG	101	Intro to Business (EDGE)	3	IT	150	Applications to Spreadsheets[2] (EDGE)	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**15**

SECOND YEAR

Third Semester				Fourth Semester			
AAT	104	Records Management	3	AAT	261	Integrated Document Formatting[6]	3
AAT	255	Desktop Publishing[2]	3	AAT	290	Internship[7]	3
AAT	265	Administrative Office Procedures[3] (EDGE)	3	ENL	231	Technical Report Writing[8,9]	3
MG	202	Business Organization & Management[4]	3			Elective[10]	3-4
		Social Science Requirement[5]	3			Math/Science Requirement[11]	3-4
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**15-17**

HOURS REQUIRED FOR GRADUATION: 60-62

Employment Opportunities:

- Administrative assistant
- Administrative secretary
- Executive assistant
- Executive secretary
- County court system
- Law firms
- Law offices

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Wylma Skean • Corbly Hall, Room 323

Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

1. Students must demonstrate a minimum of 35 wpm with 5 or fewer errors before they can enroll in AAT 114. AAT 114 has a prerequisite of AAT 136 or permission.
2. IT 150 and AAT 255 have a prerequisite of IT 101.
3. AAT 265 has a prerequisite of AAT 136.
4. MG 202 has a prerequisite of MG 101 or permission.
5. Social Science Requirement: Select from EC 102, SS 201, SS 210, or SS 215.
6. AAT 261 has a prerequisite of AAT 114.
7. AAT 290 has a prerequisite of completion of 45 program credit hours or permission.
8. ENL 231 has a prerequisite of COM 111 or ENL 111.
9. COM 235 may be substituted for COM 231 or ENL 231.
10. Elective credits must be sufficient to meet program completion requirement of 60 minimum total credits.
11. Math/Science Requirement: Select from MAT 150, MAT 210, SCI 101, or SCI 257.

LEGAL ADMINISTRATIVE TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Administrative Technology—Legal Option program maintains student learning as its main priority and is committed to excellence in a learning environment that emphasizes procedures in a legal office, problem solving, and skilled use of computer business software applications to provide for workforce development, career preparation, and lifelong learning. The increasing complexities of today's legal office have created the need for highly skilled employees who possess the knowledge and confidence necessary to handle a wide variety of administrative and legal office tasks. Upon completion of the Associate in Applied Science Degree in Administrative Technology—Legal Option, the graduate will be able to demonstrate knowledge that is specific to the legal office and gain real-life experience through placement in a legal office internship.

Career Outlook:

Secretaries and administrative assistants held about 4.2 million jobs in 2006, ranking among the largest occupations in the U.S. economy. The state of West Virginia has classified the administrative assistant field as being in "high demand" because the number of anticipated qualified employees is significantly lower than the number of expected job openings in the state. Projected employment of administrative assistants will vary by occupational specialty. Employment growth in the legal services industry should lead to average growth for legal administrative assistants through 2016. In addition to those resulting from growth, numerous job openings will result from the need to replace workers who transfer to other occupations.

Developments in office technology are certain to continue, and they will bring about further changes in the work of secretaries and administrative assistants. However, many secretarial and administrative duties are of a personal, interactive nature and, therefore, not easily automated. Responsibilities such as planning conferences, working with clients, and instructing staff require tact and communication skills. Because technology cannot substitute for these personal skills, secretaries and administrative assistants will continue to play a key role in most organizations.

Salary Forecast:

Legal Services	$39,670
Local Government (OES designation)	$36,990
State Government (OES designation	$38,360
Employment Services	$40,890
Insurance Carriers	$43,140
Software Publisher	$66,720
Medical Equipment and Supplies Manufacturing	$55,710
Semiconductor and Other Electronic Component Manufacturing	$50,240
Pharmaceutical and Medicine Manufacturing	$49,640
Securities and Commodity Contracts Intermediation and Brokerage	$49,440

Information obtained from Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2008-09 Edition, Secretaries and Administrative Assistants, on the Internet at http://www.bls.gov/oco/ocos151.htm (Visted January 18, 2008)

Program Admission Requirement:

The college adheres to an open admissions policy, which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Career Description:

Legal administrative assistants are responsible for a variety of administrative and clerical duties necessary to run a legal office effectively. They serve as information managers for the office, plan and schedule meetings and appointments, organize and maintain paper and electronic files, manage projects, and provide information by using the telephone, postal mail, and e-mail as well as handle travel arrangements. Legal administrative assistants perform highly specialized work requiring knowledge of legal terminology and procedures. Duties may include preparing correspondence and legal papers such as summonses, complaints, motions, responses, and subpoenas under the supervision of an attorney or paralegal. They also may review legal journals and assist in other ways with legal research.

LEGAL ADMINISTRATIVE TECHNOLOGY

MAJOR CODE – CO20 • CONCENTRATION CODE - CO26

FIRST YEAR

First Semester				Second Semester			
AAT	136	Comprehensive Word Processing (EDGE)	3	AAT	104	Records Management	3
ENL	111	Written Communication	3	AAT	114	Keyboarding II[1] (EDGE)	3
IT	101	Fundamentals of Computers (EDGE)	3	AC	103	Intro to Accounting	3
MAT	115	Business Mathematics	3	COM	112	Oral Communication	3
MG	101	Intro to Business (EDGE)	3	LAS	101	General Law I	3
		TOTAL CREDITS	**15**			Social Science Requirement[2]	3
						TOTAL CREDITS	**18**

SECOND YEAR

Third Semester				Fourth Semester			
AAT	242	Legal Terminology & Transcription[3]	3	AAT	261	Integrated Document Formatting[7]	3
AAT	255	Desktop Publishing[4]	3	AAT	290	Internship[8]	3
AAT	265	Administrative Office Procedures[5] (EDGE)	3	ENL	231	Technical Report Writing[9]	3
LAS	102	General Law II[6]	3			Math/Science Requirement[10]	3-4
LAS	213	Computer Applications to the Law Office[5]	3			Recommended Elective[11]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**15-16**

HOURS REQUIRED FOR GRADUATION: 63-64

Accreditation

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Administrative Assistant Technology Legal degree program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

Employment Opportunities:

- Administrative assistant
- Administrative secretary
- Executive assistant
- Executive secretary
- Secretary/receptionist
- County court system
- Law firms
- Law offices

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533 • E-mail: skean@mctc.edu

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1. Students must demonstrate a minimum of 35 wpm with 5 or fewer errors before they can enroll in AAT 114. AAT 114 has a prerequisite of AAT 136 or Permission.
2. Social Science Requirement: Select from EC 102, SS 201, SS 210, or SS 215.
3. AAT 242 has a prerequisite of AAT 114.
4. AAT 255 has a prerequisite of IT 101.
5. AAT 265 and LAS 213 have a prerequisite of AAT 136.
6. LAS 102 has a prerequisite of LAS 101.
7. AAT 261 has a prerequisite of AAT 114.
8. AAT 290 has a prerequisite of completion of 45 program credit hours or permission.
9. ENL 231 has a prerequisite of COM 112 or ENL 111.
10. Math/Science Requirement: Select from MAT 150, MAT 210, SCI 101, or SCI 257.
11. Select from: AAT 160, IT 150, LAS 248, MG 202, MG 226, or MK 210.

MEDICAL ADMINISTRATIVE TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Administrative Technology—Medical Option program maintains student learning as its main priority and is committed to excellence in a learning environment that emphasizes procedures in a medical office, problem solving, and skilled use of computer business software applications to provide for workforce development, career preparation, and lifelong learning. The complexities of today's medical office have created the need for highly skilled employees who possess the knowledge and confidence necessary to handle a wide variety of administrative and medical office tasks. Upon completion of the Associate in Applied Science Degree in Administrative Assistant Technology—Medical Option, the graduate will be able to demonstrate knowledge that is specific to the medical office and gain real-life experience through placement in a medical office internship.

Career Outlook:

Secretaries and administrative assistants held about 4.2 million jobs in 2006, ranking among the largest occupations in the U.S. economy. The state of West Virginia has classified the administrative assistant field as being in "high demand" because the number of anticipated qualified employees is significantly lower than the number of expected job openings in the state. Employment growth in the health care services industries should lead to average growth for medical administrative assistants through 2016. In addition to those resulting from growth, numerous job openings will result from the need to replace workers who transfer to other occupations or leave this very large occupation for other reasons each year. Projected employment of medical administrative assistants will vary by occupational specialty.

Salary Forecast:

Offices of Physicians	$28,560
General Medical and Surgical Hospitals	$28,440
Offices of Dentists	$33,930
Offices of Other Health Practitioners	$26,630
Outpatient Care Centers	$28,890
Business, Professional, Labor, Political, and Similar Organizations	$37,110
Management of Companies and Enterprises	$36,810
State Government (OES designation)	$34,170
Agencies, Brokerages, and Other Insurance Related Activities	$33,290

Information obtained from Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2008-09 Edition, Secretaries and Administrative Assistants, on the Internet at http://www.bls.gov/oco/ocos151.htm (Visted January 18, 2008)

Career Description:

Medical administrative assistants are responsible for a variety of administrative and clerical duties necessary to run a medical office effectively. They serve as information managers for the office; schedule and notify patients; code patients' visits; bill insurance; process deductibles; plan and schedule meetings and appointments; organize and maintain paper and electronic files; and provide information to patients, physicians, insurance companies, and others by using the telephone, postal mail, and e-mail. Administrative assistants also may handle travel arrangements. Specific job duties vary with experience and titles. Medical administrative assistants perform highly specialized work requiring knowledge of medical terminology and procedures. They transcribe dictation, prepare correspondence, and assist physicians or medical scientists with reports, speeches, articles, and conference proceedings. They also record simple medical histories, arrange for patients to be hospitalized, and order supplies. Medical administrative assistants need to be familiar with insurance rules, billing practices, hospital or laboratory procedures, and HIPAA.

Accreditation:

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Administrative Assistant Technology Medical Degree Program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

MEDICAL ADMINISTRATIVE TECHNOLOGY

MAJOR CODE – CO20 • CONCENTRATION CODE - CO27

FIRST YEAR

First Semester				Second Semester			
AAT	136	Comprehensive Word Processing (EDGE)	3	AAT	104	Records Management	3
AH	151	Medical Terminology (EDGE)	3	AAT	114	Keyboarding II[1] (EDGE)	3
ENL	111	Written Communication	3	AAT	253	Medical Transcription[2]	3
IT	101	Fundamentals of Computers (EDGE)	3	AC	103	Intro to Accounting	3
MAT	115	Business Mathematics	3	COM	112	Oral Communication	3
				BIOL	257	Intro to Anatomy & Physiology	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**18**

SECOND YEAR

Third Semester				Fourth Semester			
IT	150	Applications to Spreadsheets[3] (EDGE)	3	AAT	261	Integrated Document Formatting[7]	3
AAT	265	Administrative Office Procedures[4] (EDGE)	3	AAT	290	Internship[8]	3
LAS	248	Medical Law[5]	3	AH	216	Basic Pharmacology[9]	3
MA	204	Physician's Office Medical Coding	3	ENL	231	Technical Report Writing[10]	3
		Social Science Requirements[6]	3	MA	205	Medical Office Claims Procedures	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**15**

HOURS REQUIRED FOR GRADUATION: 63

Employment Opportunities:

- Administrative assistant
- Administrative secretary
- Executive assistant
- Executive secretary
- Secretary/Receptionist
- Clinics
- Hospitals
- Medical schools
- Nursing homes
- Physicians' offices
- Rehabilitation facilities

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533 • E-mail: skean@mctc.edu

1. Students must demonstrate a minimum of 35 wpm with 5 or fewer errors before they can enroll in AAT 114. AAT 114 has a prerequisite of AAT 136 or permission.
2. AAT 253 has a prerequisite of AAT 136 and AH 151.
3. IT 150 has a prerequisite of IT 101.
4. AAT 265 has a prerequisite of AAT 136.
5. The LAS 248 prerequisite of LAS 101 will be waived for AAT: Medical Option Program majors. Please see advisor.
6. Social Science Requirement: Select from EC 102, SS 201, SS 210, or SS 215.
7. AAT 261 has a prerequisite of AAT 114.
8. AAT 290 has a prerequisite of completion of 45 program credit hours or permission.
9. AH 216 has a prerequisite of AH 151.
10. ENL 231 has a prerequisite of COM 111 or ENL 111.

MEDICAL TRANSCRIPTION
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Administrative Technology—Medical Transcription Option program maintains student learning as its main priority and is committed to excellence in a learning environment that emphasizes procedures in a medical transcription office, problem solving, and skilled use of computer business software applications to provide for workforce development, career preparation, and lifelong learning. The complexities of today's medical transcription office have created the need for highly skilled employees who possess the knowledge and confidence necessary to handle a wide variety of administrative and transcription office tasks. Upon completion of the Associate in Applied Science Degree in Administrative Technology-Medical Transcription Option, the graduate will be able to demonstrate knowledge that is specific to the medical transcription field and gain real-life experience through placement in a medical transcription internship.

Career Outlook:

Secretaries and administrative assistants held about 4.2 million jobs in 2006, ranking among the largest occupations in the U.S. economy. The state of West Virginia has classified the Administrative Assistant field as being in "high demand" because the number of anticipated qualified employees is significantly lower than the number of expected job openings in the state. Job opportunities will be good. Employment of medical transcriptionists is projected to grow faster than the average for all occupations through 2016. Demand for medical transcription services will be spurred by a growing and aging population. Older age groups receive proportionately greater numbers of medical tests, treatments, and procedures that require documentation. A high level of demand for transcription services also will be sustained by the continued need for electronic documentation that can be easily shared among providers, third-party payers, regulators, and consumers. Growing numbers of medical transcriptionists will be needed to amend patients' records, edit for grammar, and identify discrepancies in medical records.

Salary Forecast:

Wage-and-salary medical transcriptionists had median hourly earnings of $14.40 in May 2006. The middle 50 percent earned between $12.17 and $17.06. The lowest 10 percent earned less than $10.22, and the highest 10 percent earned more than $20.15. Median hourly earnings in the industries employing the largest numbers of medical transcriptionists were:

Medical and diagnostic laboratories	$15.68/hour
General medical and surgical hospitals	$14.62/hour
Business support services	$14.34/hour
Outpatient care centers	$14.31/hour
Offices of physicians	$14.00/hour

Compensation methods for medical transcriptionists vary. Some are paid based on the number of hours they work or on the number of lines they transcribe. Others receive a base pay per hour with incentives for extra production. Employees of transcription services and independent contractors almost always receive production-based pay. Independent contractors earn more than do transcriptionists who work for others, but independent contractors have higher expenses than their corporate counterparts, receive no benefits, and may face higher risk of termination than do wage-and-salary transcriptionists.

Information obtained from Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2008-09 Edition, Secretaries and Administrative Assistants, on the Internet at http://www.bls.gov/oco/ocos151.htm (Visited January 18, 2008)

Career Description:

Employers prefer to hire transcriptionists who have completed postsecondary training in medical transcription offered by many vocational schools, community colleges, and distance-learning programs.

Completion of a 2-year associate degree or 1-year certificate program including coursework in anatomy, medical terminology, legal issues relating to health care documentation, and English grammar and punctuation is highly recommended, but not always required. Many of these programs include supervised on-the-job experience. Some transcriptionists, especially those already familiar with medical terminology from previous experience as a nurse or medical secretary, become proficient through refresher courses and training.

Program Admission Requirements:

Entrance exams in grammar, spelling, and punctuation are required. A minimum keyboarding speed of 45 wpm is required. Applicants should possess basic word processing skills. Arrangements for exams may be made through the Advising Center at (304) 696-3460.

MEDICAL TRANSCRIPTION

MAJOR CODE – CO20 • CONCENTRATION CODE - CO28

FIRST YEAR[1]

First Semester

AAT	136	Comprehensive Word Processing (EDGE)	3
ENL	111	Written Communication	3
IT	101	Fundamentals of Computers (EDGE)	3
MA	204	Physicians Office Medical Coding	3
MAT	115	Business Mathematics	3
		TOTAL CREDITS	**15**

Second Semester

AAT	114	Keyboarding II[1] (EDGE)	3
COM	112	Oral Communication	3
LAS	248	Medical Law[2]	3
MA	205	Medical Office Claims Procedures	3
SS	201	Human Relations	3
		TOTAL CREDITS	**15**

SECOND YEAR

Third Semester[3,4]

AAT	220	Anatomy & Physiology for Transcription	3
AAT	221	Medical Terminology for Transcription	3
AAT	222	Pharmacology for Transcription	3
AAT	223	Beginning Lab Medicine Transcription	1
AAT	244	Beginning Medical Transcription	8
		TOTAL CREDITS	**18**

Fourth Semester[3,5]

AAT	224	Advanced Lab Medicine for Transcription	1
AAT	225	Human Disease for Transcription	3
AAT	226	Surgical Procedures for Transcription	1
AAT	245	Pathology Transcription	2
AAT	246	Radiology Transcription	2
AAT	247	Gastroenterology Transcription	2
AAT	248	Cargiology Transcription	2
AAT	249	Orthopedics Transcription	2
AAT	250	Medical Transcription Internship	1
		TOTAL CREDITS	**16**

HOURS REQUIRED FOR GRADUATION: 64

Employment Opportunities:

- Secretary/Receptionist
- Transcriptionist
- Physicians' offices/clinics
- Hospitals
- Medical schools
- Acute care facilities
- Physical therapy facilities
- Rehabilitation facilities
- Nursing homes
- Transcription companies
- Independent contractors
- Work from home

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

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1. Students must demonstrate a minimum of 35 wpm with 5 or fewer errors before they can enroll in AAT 114. AAT 114 has a prerequisite of AAT 136 or permission.
2. The LAS 248 prerequisite of LAS 101 will be waived for the Administrative Assistant Technology: Medical Transcription Option. Please see an advisor.
3. The third and fourth semesters are composed of courses from the One-Year Medical Transcription Certificate Program. Entrance exams verifying above-average grammar, spelling, and punctuation skills, basic word processing skills, minimum keyboarding speed of 45 wpm, and instructor permission are required for admission to the program and enrollment in the third semester courses. Successful completion of third semester courses (C or better) is required for entrance into fourth semester courses. Students who have completed the One-Year Medical Transcription Certificate Program may complete the first and second semester courses (or demonstrate required skills via competency exams where available) to complete the two-year degree program.
4. Third semester AAT courses have prerequisites of admission to the program and instructor permission. Please see an advisor for further information on program admission requirements.
5. Fourth semester courses have prerequisites of successful completion of third semester courses (C or better) and instructor permission.

BANKING AND FINANCE
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The increasing complexities of the banking and financial environment have created the need for individuals who possess a greater diversity of skills. Interpersonal, communication, analytical, decision-making, customer service, and computer skills are essential for success in banking and finance. Marshall Community & Technical College's Banking and Finance program provides these skills and provides a background in subject matter relevant to institutions such as commercial banks, savings banks, credit unions, mortgage banks, and other financial institutions. The program is designed for students seeking careers with financial institutions and for those individuals already working for financial institutions who desire career advancement.

Upon completion of the Associate of Applied Science Degree in Banking and Finance, the graduate will be able to:

- Understand banking and finance terminology
- Apply knowledge of business computer software to financial institution activities
- Apply relevant mathematical skills to financial institution activities
- Demonstrate a working knowledge of ethical, legal, and social skills that relate to the banking and finance environment
- Make decisions after gathering and analyzing information
- Prepare and present written and oral business communication

Career Outlook:

Wage and salary employment in banking is projected to increase 4 percent between 2006 and 2014, compared with the 16 percent growth projected for the economy as a whole. The combined effects of technology, deregulation, mergers, and population growth will continue to affect total employment growth and the mix of occupations in the banking industry. Overall declines in office and administrative support occupations will be offset by growth in professional, managerial, and sales occupations. The Banking and Finance program is operated in cooperation with the American Institute of Banking (AIB). Students employed by a bank or savings and loan can also receive certificates from the AIB.

Salary Forecast:

Median hourly earnings of selected occupations in banking:	**National**
Financial managers	$34.89
Loan officers	$24.89
First-line supervisors/managers of office and administrative support workers	$19.66
Loan interviewers and clerks	$14.35
Customer service representatives	$13.60
Office clerks, general	$10.63

(Information obtained from the Occupational Outlook Handbook 2006-2007)

Program Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Accreditation:

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Banking and Finance degree program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

BANKING AND FINANCE

MAJOR CODE – CB10

FIRST YEAR[1]					
First Semester			**Second Semester**		
ENL	111	Written Communication 3	AC	201	Financial Accounting[1] 3
FN	151	Principles of Bank Operations 3	EC	102	Basic Economics[1] 3
IT	101	Fundamentals of Computers (EDGE) . .3	ISM	133	Principles of Supervision & Management.3
MAT	115	Business Mathematics 3	MAT	210	Statistics for Business & Industry[1,2]. . . .3
MG	101	Intro to Business (EDGE) 3	MK	130	Fundamentals of Marketing 3
					Banking/Finance Elective[1,3] 3
TOTAL CREDITS. 15			**TOTAL CREDITS. 18**		
SECOND YEAR					
Third Semester			**Fourth Semester**		
ENL	231	Technical Report Writing[4,5] 3	AC	221	Computerized Accounting[1,8] 3
FN	252	Law & Banking[6] 3	MG	296	Integrated Business Strategies[9]. 3
IT	150	Applications to Spreadsheets[7]. 3	MK	210	Customer Service[4]. 3
COM	112	Oral Communication 3			Banking/Finance Elective[1,3]. 3
		Banking/Finance Elective[1,3]. 3			Banking/Finance Elective[1,3]. 3
		Banking/Finance Elective[1,3]. 3			
TOTAL CREDITS. 18			**TOTAL CREDITS. 15**		
HOURS REQUIRED FOR GRADUATION: 66					

Employment Opportunities:

- Beginning personal banker
- Management trainee
- Vault teller
- Trust administrative assistant
- Marketing assistant
- Collections assistant
- Teller supervisor
- Consumer loan assistant
- Commercial loan assistant
- Credit evaluation assistant
- Commercial banks, savings and loans, credit unions and mortgage banks

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Rick Brown • Corbly Hall, 324
Phone: (304) 696-3012 1-866-N-ROLLED (1-866-676-5533) • E-mail: brownr@mctc.edu

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1. Students pursuing the dual baccalaureate degree in Finance (Banking Option) must substitute AC 201 for AC 108; ACC 210 for AC 221; ECN 250 for EC 102; MAT 145 for MAT 210; and must consult the program advisor regarding appropriate electives.
2. MAT 210 has a prerequisite of MAT 115.
3. Recommended Banking/Finance Electives: AC 234, FN 163, FN 231, FN 250, FN 251, FN 258, FN 259, FN 264, MG 226, MG 253, MG 299, and MK 255.
4. ENL 231 and MK 210 have a prerequisite of ENL 111 or COM 111.
5. COM 235 may be substituted for ENL 231.
6. FN 252 has a prerequisite of FN 151.
7. IT 150 has a prerequisite of IT 101.
8. AC 221 has a prerequisite of AC 108.
9. MG 296 has a prerequisite of 45 credit hours completed in the program.

CULINARY ARTS
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The hospitality and food service industry is a large, diverse field that provides challenging and exciting career opportunities for people from all walks of life. The possibilities for satisfying careers are almost limitless. The rewards and satisfactions provided by the industry far exceed those of many other fields of work.

While the different segments of the hospitality and tourism industry have their own unique characteristics, they all share the same mission and heritage-serving the guest or customer. The segments of hospitality and tourism are traveling services, lodging, food service, and recreation services. They all possess a common future as the most dynamic employment and career fields available. The program offers advanced chef training as well as restaurant management skills. After studying the fundamentals of classical and contemporary cuisine and restaurant procedures, students will develop advanced skills in garde manger and a la carte cooking. The graduate will have the necessary training to work in a variety of culinary establishments as Sous Chef, Garde Manger, Kitchen Supervisor, and Restaurant Manager.

Career Description:

Chefs, cooks, and food preparation workers prepare, season, and cook a wide range of foods—from soups, snacks, and salads to entrees, side dishes, and desserts—in a variety of restaurants and other food services establishments. Chefs and cooks create recipes and prepare meals, while food preparation workers peel and cut vegetables, trim meat, prepare poultry, and perform other duties such as keeping work areas clean and monitoring temperatures of ovens and stove tops.

Career Outlook:

Job openings for chefs, cooks, and food preparation workers are expected to be plentiful through 2014; however, competition for jobs in the top kitchens of higher-end restaurants should be keen. While job growth will create new positions, the overwhelming majority of job openings will stem from the need to replace workers who leave this large occupational group.

(Information obtained from Occupational Outlook Handbook, 2006-2007)

Salary Forecast:

Chef | West Virginia

Low	Average	High	Bonus	Benefits	Total Compensation
$29,097	$44,046	$106,930	6.9%	19.0%	$55,462

United States of America National Average

Low	Average	High	Total Compensation
$40,378	$61,123	$148,388	$72,799

(Information obtained from salaryexpert.com)

Admission Requirements

The college adheres to an open admissions policy meaning applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Tech Prep Affiliation:

The Hospitality Management program is aligned with the West Virginia Tech Prep Business cluster. This career track provides the opportunity for students to acquire college credit while attending high school.

For high school students interested in food service careers and coming from applicable programs offering ProStart© curriculum, the program will provide for a seamless transition from ProStart through the completion of the Culinary Arts Certificate.

Students who complete the high school ProStart© program and pass the ProStart© examination with a score of 75% or higher will receive 6 credit hours toward the Culinary Arts Certificate. This will leave 30 credit hours to complete the certificate requirement of 36 credit hours.

CULINARY ARTS

MAJOR CODE - CH20 • CONCENTRATION CODE - CH21

FIRST YEAR

Fall Semester				Spring Semester			
CA	105	Fabrication & Knife Skills (1st 8 weeks)	3	CA	269	Soups, Stocks & Sauces (1st 8 weeks)	3
CA	110	Mise en Place (2nd 8 weeks)	3	CA	112	Garde Manger[2] (2nd 8 weeks)	3
CA	120	A la Carte Dining Room Service[1*] (EDGE)	3	CA	270	Managing Culinary Operations	3
CA	200	Sanitation & Safety[1*](EDGE)	3	CA	275	Cost Control & Revenue Management[3]	3
HM	101	Travel, Tourism & Hospitality Industry	3	ENL	111	Written Communications	3
IT	101	Fundamentals of Computers (EDGE)	3	CA	195	Hospitality Lab Practicum II	1
CA	190	Hospitality Lab Practicum I	1			Math/Science Requirement[4]	3
		TOTAL CREDITS	**19**			**TOTAL CREDITS**	**19**

SECOND YEAR

Fall Semester				Spring Semester			
CA	116	Intro to Breads & Doughs (1st 8 weeks)	3	CA	135	International Cuisine (1st 8 weeks)	3
CA	205	A la Carte Dining Room II[2,5](2nd 8 weeks)	3	CA	225	Advanced Cooking & Artistry[2] (2nd 8 weeks)	3
CA	245	Culinary Nutrition	3	CA	235	Menu Planning	3
COM	112	Oral Communication	3	CA	260	Culinary Selection and Procurement	3
MAT	115	Business Mathematics	3	HM	240	Intro to Vineyards & Breweries[6]	3
SS	201	Human Relations	3	HM	299	Internship Apprenticeship[7]	3
CA	290	Hospitality Practicum Lab III	1				
		TOTAL CREDITS	**19**			**TOTAL CREDITS**	**18**

HOURS REQUIRED FOR GRADUATION: 75

Employment Opportunities:

- Restaurants
- Kitchen supervisor
- Sous chef
- Garde manger chef
- A la carte chef
- Restaurant manager

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Larry Perry
Phone: (304) 696-4326 or 1-866-N-ROLLED (1-866-676-5533) • email: perry149@mctc.edu

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1. Students who complete the high school ProStart program and pass the ProStart examination with a score of 75% or higher will receive college credit for CA 120 and CA 200. Documentation of the test results must be provided for the student to receive credit.
2. CA 112, CA 116, CA 135, CA 205, CA 225, CA 255 have a prerequisite of CA 110.
3. CA 275 has a prerequisite of IT 101.
4. Math/Science Requirement: Select from: MAT 150, MAT 210, SCI 101, SCI 210, and SCI 220.
5. CA 205 has a prerequisite of CA 120.
6. HM 240 or CA 257 has a prerequisite of HM 101; CA 257 may be substituted for HM 240.
7. Students must receive permission from the program coordinator to enroll in HM 299. Students may complete this requirement between the 1st and 2nd year.

**ProStart Course*

HOTEL/LODGING MANAGEMENT ASSOCIATE IN APPLIED SCIENCE

Program Description:

The hospitality and tourism industry is a large, diverse field that provides challenging and exciting career opportunities for people from all walks of life. The possibilities for satisfying careers are almost limitless. The rewards and satisfactions provided by the industry far exceed those of many other fields of work.

While the different segments of the hospitality and tourism industry have their own unique characteristics, they all share the same mission and heritage, serving the guest or customer. The segments of hospitality and tourism are traveling services, lodging, food service, and recreation services. They all possess a common future as one of the most dynamic employment and career fields available. Students will attain knowledge in food service disciplines, customer service, sanitation, purchasing and inventory control, business operations, marketing, retailing, accounting management, and communication skills.

Career Outlook:

Employment of lodging management is expected to grow more slowly than the average for all occupations through 2012. Additional job openings are expected to occur as experienced managers transfer to other occupations or leave the labor force. Job opportunities are expected to be best for persons with college degrees in hotel or restaurant management.

A comfortable room, good food, and a helpful staff can make time away from home an enjoyable experience for both vacationing families and business travelers. While most lodging managers work in traditional hotels and motels, some work in other lodging establishments, such as camps, inns, boarding houses, dude ranches, and recreational resorts. In full-service hotels, lodging managers help their guests have a pleasant stay by providing many of the comforts of home, including cable television, fitness equipment, voice mail, as well as specialized services such as health spas. Lodging managers often schedule available meeting rooms and electronic equipment for business travelers, including slide projectors and fax machines. Lodging managers are responsible for keeping their establishments efficient and profitable. In a small establishment with a limited staff, the manager may oversee all aspects of operations. However, large hotels may employ hundreds of workers, and the general manager usually is aided by a number of assistant managers assigned to the various departments of the operation. In hotels of every size, managerial duties vary significantly by job title.

Salary Forecast:

Median annual earnings of lodging managers were $37,660 in May 2004. The middle 50 percent earned between $28,640 and $51,030. The lowest 10 percent earned less than $22,680, while the highest 10 percent earned more than $72,160.

(Information obtained from the Occupational Outlook Handbook 2006-2007)

Tech Prep Affiliation:

The Hospitality Management program is aligned with the West Virginia Tech Prep Business/Marketing cluster. This career track provides the opportunity for students to acquire college credit while attending high school.

For high school students interested in food service careers and coming from applicable programs offering ProStart curriculum, the program will provide for a seamless transition from ProStart through the completion of an Associate in Applied Science Degree in Hospitality Management.

Students who complete the high school ProStart program and pass the ProStart examination with a score of 75% or higher will receive 9 credit hours toward the associate degree. This will leave 57 credit hours to complete the associate degree requirement of 66 credit hours.

HOTEL/LODGING MANAGEMENT

MAJOR CODE - CH20 • CONCENTRATION CODE - CH22

FIRST YEAR

First Semester				Second Semester			
CA	200	Culinary Sanitation & Safety[3*] (EDGE)	3	HM	137	Trends in the Hospitality Industry	3
ENL	111	Written Communication	3	HM	145	Hotel Front Office Procedures	3
HM	101	Travel, Tourism, & Hospitality	3	HM	155	Hospitality Information Systems[1]	3
HM	220	Managing Catering Operations	3	MAT	150	Applied Professional Math[2]	3
IT	101	Fundamentals of Computers* (EDGE)	3	SS	201	Human Relations	3
MAT	115	Business Mathematics[2]	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**15**

SECOND YEAR

Third Semester				Fourth Semester			
CA	235	Menu Planning	3	CA	260	Culinary Selection & Procurement	3
CA	120	A la Carte Dining Service I[3](EDGE)	3	CA	275	Cost Control & Revenue Management[1]	3
COM	112	Oral Communication	3	HM	210	Human Resources & Diversity Management	3
HM	222	Rooms Division Management[4]	3	HM	240	Intro to Vineyards & Breweries[5]	3
HM	250	Managing Hospitality Marketing	3	HM	299	Internship/Apprenticeship[6]	3
HM	285	Legal Aspects of Hospitality Mgmt.	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**15**

HOURS REQUIRED FOR GRADUATION: 66

Employment Opportunities:

- Hotel management
- Resort management
- Tourism offices
- Travel services
- Recreation services

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Larry Perry
Phone: (304) 696-4326 or 1-866-N-ROLLED (1-866-676-5533) • email: perry149@mctc.ed

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1. HM 155 and CA 275 have a prerequisite of IT 101.
2. MAT 115 and MAT 150 has a prerequisite of ACT 19; MAT 095, MAT 097, MAT 097E, or PLAC 100.
3. Students who complete the high school ProStart program and pass the ProStart examination with a score of 75% or higher will receive college credit for CA 120, and CA 200. Documentation of the test results must be provided for the student to receive credit.
4. HM 222 has a prerequisite of HM 145.
5. HM 240 or CA 257 has a prerequisite of HM 101; CA 257 may be substituted for HM 240.
6. Students must receive permission from the program coordinator to enroll in HM 299. Students may complete this requirement between the 1st and 2nd year.

**ProStart Course*

INTERIOR DESIGN
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Interior Design program is a cooperative effort between Marshall Community & Technical College (MCTC) and Cabell County Career Technology Center (CCCTC). Students will take their interior design technical training at Cabell County Career Technology Center and their business and general education courses at Marshall Community & Technical College.

The Interior Design program is associated with the American Society of Interior Design (ASID) through the ECCTC. It is designed for individuals who wish to seek employment in interior design or related fields. The program provides students the opportunity to acquire knowledge and understanding of the equipment and supplies, principles and elements of design, and actual hands-on training required for entry-level positions. Students also learn the basics of efficient space planning, color theory, drafting, lighting, furniture, floral design, exterior design and human factors affecting interior design.

Upon completion of the Interior Design, Associate in Applied Science Degree, the graduate will be able to:

- Exhibit knowledge of the terminology associated with interior design;
- Apply interior design concepts to planning the space and furnishing the interiors of private homes, public buildings, and or institutional establishments;
- Demonstrate good interpersonal and customer service skills;
- Prepare and present written and oral communication;
- Gain real-life experience through placement in an internship.

Career Outlook:

Interior designers enhance the function, safety, and quality of interior spaces of private homes, public buildings, and business or institutional facilities, such as offices, restaurants, retail establishments, hospitals, hotels, and theaters. They also plan the interiors of existing structures that are undergoing renovation or expansion. Employment of Interior designers in expected to grow 19 percent from 2006 to 2016.

Increasingly, designers are using computers to plan layouts because computers make it easy to change plans to include ideas received from the client. Interior designers also design lighting and architectural details: such as crown molding, built-in bookshelves, or cabinets; coordinate colors; and select furniture, floor coverings, and window treatments. Rising demand for interior design of private homes, offices, restaurants and other retail establishments, and institutions that care for the rapidly growing elderly population should spur employment growth of interior designers.

Salary Forecast:

Earnings for interior designers vary widely depending on the type of design they do, whether they are self-employed or salaried, years of experience, reputation, demand, regional differences, and other factors. As in many other professions, entry-level salaries are low, and senior practitioners and firm principals or partners often earn several times that of junior staff. Median annual earnings for interior designers were $42,260 in May 2006. The middle 50 percent earned between $31,830 and $57,230. The lowest 10 percent earned less than $24,270, and the highest 10 percent earned more than $78,760.

Admission Requirements:

In addition to complying with Marshall Community & Technical College's admission standards, students must also apply for admission to Cabell County Career Technology Center and meet the Center's admission standards to be able to take the interior design courses taught at the Center.

INTERIOR DESIGN

MAJOR CODE – CI10

FIRST YEAR

First Semester

ENL	111	Written Communication	3
ID	110	Perspective Drawing Techniques	3
ID	102	Intro to Design	3
MAT	150	Applied Professional Math	3
MK	130	Fundamentals of Marketing	3
		TOTAL CREDITS	**15**

Second Semester

COM	112	Oral Communication	3
EC	102	Basic Economics	3
ID	120	Advanced Perspective Drawing[1]	3
ID	201	3-D Design[2]	3
IT	110	Computer Skills for Interior Design[2]	3
		Math/Science Requirement[3]	3
		TOTAL CREDITS	**18**

SECOND YEAR

Component II

Interior Design Technical Training taught by Cabell County Career Technology Center (First or second year depending on whether students start at MCTC or CCCTC).[4,5]

Third Semester

CAD	111	Computer-Aided Drafting for Interior Design	3
ID	111	Interior Design Theory (EDGE)	3
ID	112	Design Graphics (EDGE)	3
ID	205	Interior Design Architecture (EDGE)	3
ID	211	Technical Drawing (EDGE)	3
ID	212	Interior Textile Materials (EDGE)	3
		TOTAL CREDITS	**18**

Fourth Semester

CAD	211	Advanced Computer Aided Interior Design	3
ID	115	Visual Merchandising[6] (EDGE)	3
ID	215	Floral Design and Application[6] (EDGE)	3
ID	220	Window/Wall/Floor Treatments[7] (EDGE)	3
ID	225	Furniture Construction/History[7] (EDGE)	2
ID	299	Internship[8] (EDGE)	3
		TOTAL CREDITS	**17**

HOURS REQUIRED FOR GRADUATION: 65

Employment Opportunities:

- Architectural firms
- Interior design firms
- Kitchen design centers
- Department stores
- Furniture stores

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Rick Brown • Corbly Hall, Room 324
Phone: (304) 696-3012 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brownr@mctc.edu
or
Lou Etta Bowen • Cabell County Career Technology Center
Phone: (304) 528-5106 • E-mail: lbowen@marshall.edu

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1. ID 120 has a prerequisite of ID 110.
2. ID 201 and IT 110 have a prerequisite of ID 110.
3. Math/Science Requirement: select from MAT 150, MAT 210, SCI 101E, or another math/science course approved by an advisor.
4. Interior Design Technical Training taught by Cabell County Career Technology Center first or second year depending on whether students start at MCTC or CCCTC.
5. Students who intend to apply for financial aid must enroll exclusively at one institution, and must apply through the institution in which they enroll. Financial aid received through one of the institutions will not apply to courses taken at the other institution.
6. ID 115 and ID 215 have a prerequisite of ID 111.
7. ID 220 and ID 225 have a prerequisite of ID 212.
8. Students must complete a minimum of 48 credit-hours of the program before they are eligible for ID 299.

LEGAL ASSISTANT
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Legal Assistant program was planned with assistance from the West Virginia State Bar and a program advisory committee consisting of attorneys and legal assistants. The program has been granted approval by the American Bar Association.

The program offers the Associate in Applied Science degree graduates the opportunity to pursue a baccalaureate degree in Legal Studies from Marshall University's College of Liberal Arts, Criminal Justice Department.

Upon completion of the Legal Assistant Associate in Applied Science Degree, the graduate will be able to:

- Exhibit knowledge of legal terminology to communicate with attorneys, peers, managers, and other professionals
- Develop specific skills in those areas of law practice in which legal assistants customarily function
- Assist attorneys with client interviews, legal research, preparation of documents and pleadings for trial and other professional activities normally undertaken by paraprofessionals to assist with the practice of law
- Exhibit knowledge of appropriate ethical behavior for legal assistants

A legal assistant is a highly skilled paraprofessional with specialized training who works under the direct supervision of an attorney. Job responsibilities require knowledge of law and legal procedures in rendering direct assistance to lawyers and clients. Tasks may include interviewing, case investigation, the preparation of pleadings, and legal research. The increasing complexities of the legal assistant's work environment have also created the need for individuals who possess skills including interpersonal, communication, analytical, decision-making, customer service, and computer skills. Legal Assistants cannot provide legal services directly to the public except as permitted by law.

Career Outlook:

Employment of paralegals and legal assistants is projected to grow faster than the average for all occupations through 2012. Some employment growth stems from law rooms and other employers with legal staff hiring paralegals/legal assistants to lower the cost and increase the availability and efficiency of legal services. The job openings for paralegals in the future will be new jobs created by employment growth, and additional job openings will arise as people leave the occupation. Despite projections of fast employment growth, competition for jobs should continue as many people seek to go into this profession; however, highly skilled, formally trained paralegals have excellent employment potential.

Salary Forecast:

Earnings of paralegals and legal assistants vary greatly. Salaries depend on education, training, experience, type and size of employer, and geographic location of the job. In general, paralegals who work for large law firms or in large metropolitan areas earn more than those who work for smaller firms or in less populated regions. Median annual earnings in the industries employing the largest numbers of paralegals in 2004 were as follows:

Federal government	$59,370
Legal services	$37,870
Local government	$38,260
State government	$34,910

Admission Requirements:

The college adheres to an open admissions policy meaning applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

LEGAL ASSISTANT

MAJOR CODE - CL10

FIRST YEAR[1,13]

First Semester				Second Semester			
AAT	136	Intro to Word Processing (EDGE)	3	COM	112	Oral Communication	3
ENL	111	Written Communication	3	EC	102	Basic Economics	3
LAS	101	General Law I	3	LAS	102	General Law II[2]	3
LAS	103	Legal Assisting	3	LAS	213	Comp. Apps. to Law[3]	3
MAT	150	Applied Professional Mathematics	3	SCI	201	Integrated Science: Health, Law & Environment[4]	4
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**16**

SECOND YEAR

Third Semester				Fourth Semester			
ENL	115	Written Communication II[5]	3	ENL	231	Technical Report Writing[9]	3
LAS	209	Adm. Agency Adv.	3	FN	248	Real Estate Law	3
LAS	211	Legal Research and Writing[6]	3	LAS	212	Legal Research & Writing[10]	3
LAS	235	Civil Litigation[6]	3	LAS	290	Internship[11]	3
		LAS Elective[7]	3			LAS Elective[7 or 12]	3
		Social Science Elective[8]	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**15**

HOURS REQUIRED FOR GRADUATION: 64

Employment Opportunities:

- Legal assistant/Paralegal for law firms
- Legal assistant/Paralegal for a business entity's legal department
- Legal assistant/Paralegal for governmental agencies
- Administrator for a nonprofit legal services corporation
- Trust administrative assistant
- Editor of a legal publishing company
- Criminal justice occupations in corrections and law enforcement

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Heather R. Hussell • Corbly Hall, Room 320
Phone: (304) 696-3021 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: hussell8@mctc.edu

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1. The College of Liberal Arts, Marshall University, Criminal Justice Program permits students possessing an Associate Degree in Legal Assistant from Marshall Community and Technical College to apply designated credits toward a baccalaureate degree in Criminal Justice/Legal Studies. Students interested in pursuing the Legal Assistant/Legal Studies Degree Programs should contact the Chair of the Criminal Justice Department for information concerning the requirements of the College of Liberal Arts to assure timely completion.
2. LAS 102 has a prerequisite of LAS 101.
3. LAS 213 has a prerequisite of AAT 136.
4. SCI 201 has a prerequisite of MAT 150.
5. ENL 115 has a prerequisite of ENL 111 or COM 111.
6. LAS 211 and LAS 235 have a prerequisite of LAS 101.
7. Recommended Legal Assistant Electives: LAS 110, LAS 225, LAS 231, LAS 240, LAS 244, LAS 248, LAS 250 or LAS 290.
8. Recommended Social Science Electives: SS 201, SS 210, or SS 215.
9. ENL 231 has a prerequisite of ENL 111 or COM 111.
10. LAS 212 has a prerequisite of LAS 211.
11. LAS 290 has a prerequisite of permission by program coordinator.
12. Students pursuing the 4-year degree in Criminal Justice Legal Studies Track must take CJ 200.
13. Students are required to make a "C" or better in each LAS course before graduating from the program.

ACCOUNTING
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The increasing complexities of the business environment have created the need for individuals who possess a greater diversity of skills. Interpersonal, communication, analytical, decision-making, customer service, and computer skills are essential for success in business. Marshall Community & Technical College's Management Technology program provides these skills and prepares students for entry-level positions in organizations with career paths that eventually lead to supervisory and management positions. The program also prepares employed individuals for upward mobility within their organizations.

The Accounting option prepares the student for the ability to perform a variety of complex clerical and entry level accounting activities applying accepted procedures to the preparation and maintenance of accounting and other records, and preparing financial, statistical, and/or technical reports to ensure accurate accounting records.

Career Outlook:

Bookkeeping, accounting, and auditing clerks are an organization's financial record keepers. They update and maintain one or more accounting records, including those that tabulate expenditures, receipts, accounts payable and receivable, and profit and loss. They have a wide range of skills and knowledge from full-charge bookkeepers who can maintain an entire company's books to accounting clerks who handle specific accounts. All of these clerks make numerous computations each day and increasingly must be comfortable using computers to calculate and record data.

Salary Forecast:

	State Average	National Average
Bookkeeping, accounting and auditing clerks	$24,810	$28,570
Payroll and timekeeping clerks	$25,800	$30,350
Billing and posting clerks	$22,330	$27,040

Having completed some college is becoming increasingly important for financial clerks, particularly for those occupations requiring knowledge of accounting. For occupations such as bookkeepers, accounting clerks, and procurement clerks, an associate's degree in business or accounting often is required.

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Accreditation:

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Management Technology degree program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

ACCOUNTING

MAJOR CODE - CM10 • CONCENTRATION CODE - CM15

FIRST YEAR							
Fall Semester				**Spring Semester**			
AC	103	Intro to Accounting (EDGE)	3	AC	201	Financial Accounting I[2]	3
ENL	111	Written Communication	3	AC	221	Computerized Accounting I[3]	3
IT	101	Fundamentals of Computers (EDGE)	3	ECN	250	Principles of Microeconomics	3
MAT	115	Business Mathematics[1]	3	IT	150	Applications to Spreadsheets[4] (EDGE)	3
MG	101	Intro to Business(EDGE)	3	MAT	210	Statistics for Business & Industry[6] (EDGE)	3
		TOTAL CREDITS	**15**	SS	215	Lifespan Psychology	3
						TOTAL CREDITS	**18**
SECOND YEAR							
Fall Semester				**Spring Semester**			
AC	210	Managerial Accounting[5]	3	AC	234	Taxation[5]	3
COM	112	Oral Communication	3	ACC	318	Cost Accounting I[10]	3
ENL	115	Written Communication II[7]	3	FN	231	Business Finance[5]	3
ECN	253	Principles of Macroeconomics[8]	3	MG	226	Commercial Papers & Transactions	3
MG	202	Business Organization & Management[9]	3	MG	296	Integrated Business Strategies[11]	3
MK	130	Fundamentals of Marketing	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**15**
HOURS REQUIRED FOR GRADUATION: 66							

Employment Opportunities:

Accounting paraprofessionals are qualified for numerous career opportunities such as accountant's assistants, accounting clerks, bookkeepers, banking support staff, finance support staff, and income tax preparation clerks.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Gerald Doyle • Corbly Hall, Room 322
Phone: (304) 696-3019 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: doyle@mctc.edu

1. Students pursuing the articulated baccalaureate degree with Lewis College of Business must take MAT 145 instead of MAT 115.
2. AC 201 has a prerequisite of AC 103 or permission.
3. AC 221 has a prerequisite of IT 101 and AC 103, or IT 101 and AC 108, or permission.
4. IT 150 has a prerequisite of IT 101.
5. AC 210, AC 234, and FN 231 have a prerequisite of AC 103 or AC 201.
6. MAT 210 has a prerequisite of MAT 115 or MAT 145.
7. ENL 115 has a prerequisite of COM 111 or ENL 111.
8. ECN 253 has a prerequisite of ECN 250.
9. MG 202 has a prerequisite of MG 101.
10. ACC 318 has a prerequisite of AC 210.
11. MG 296 has a prerequisite of 45 credit hours completed in the program.

ACCOUNTING (DUAL DEGREE)
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The increasing complexities of the business environment have created the need for individuals that possess a greater diversity of skills. Interpersonal, communication, analytical, decision-making, customer service, and computer skills are essential for success in business. Marshall Community & Technical College's Management Technology program provides these skills and prepares students for entry-level positions in organizations with career paths that eventually lead to supervisory and management positions. The program also prepares employed individuals for upward mobility within their organizations.

The Accounting option prepares the student for the ability to perform a variety of complex clerical and entry level accounting activities applying accepted procedures to the preparation and maintenance of accounting and other records, and preparing financial, statistical, and/or technical reports to ensure accurate accounting records.

Dual Degree Option: The Accounting Dual Degree option offers the associate degree graduate the opportunity to pursue a baccalaureate degree from Marshall University's Elizabeth McDowell Lewis College of Business.

Career Outlook:

Bookkeeping, accounting, and auditing clerks are an organization's financial record keepers. They update and maintain one or more accounting records, including those that tabulate expenditures, receipts, accounts payable and receivable, and profit and loss. They have a wide range of skills and knowledge from full-charge bookkeepers who can maintain an entire company's books to accounting clerks who handle specific accounts. All of these clerks make numerous computations each day and increasingly must be comfortable using computers to calculate and record data.

Salary Forecast:

	State Average	National Average
Bookkeeping, accounting and auditing clerks	$24,810	$28,570
Payroll and timekeeping clerks	$25,800	$30,350
Billing and posting clerks	$22,330	$27,040

Having completed some college is becoming increasingly important for financial clerks, particularly for those occupations requiring knowledge of accounting. For occupations such as bookkeepers, accounting clerks, and procurement clerks, an associate's degree in business or accounting often is required.

(Information obtained from the Bureau of Labor Statistics)

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Management Technology degree program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Gerald Doyle • Corbly Hall, Room 322
Phone: (304) 696-3019 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: doyle@mctc.edu

ACCOUNTING (DUAL DEGREE)

MAJOR CODE - CM10 • CONCENTRATION CODE - CM18

FIRST & SECOND YEAR

First Semester

AC	103	Intro to Accounting (EDGE)	3
ENL	111	Written Communication (ENG 101)	3
IT	101	Fundamentals of Computers (EDGE)	3
MAT	115	Business Mathematics (MTH 123)	3
MG	101	Intro to Business (EDGE)	3
		TOTAL CREDITS	**15**

Second Semester

AC	201	Financial Accounting I[1] (ACC 215)	3
AC	221	Computerized Accounting[2]	3
ECN	250	Principles of Microeconomics	3
IT	150	Application of Spreadsheets[3]	3
MAT	210	Statistics for Business & Industry[4] (MGT 218)	3
SS	215	Lifespan Psychology (PSY 201)	3
		TOTAL CREDITS	**18**

Third Semester

AC	210	Managerial Accounting[5]	3
COM	112	Oral Communication (CMM 207)	3
ENL	115	Written Communication II[6] (ENG 102)	3
ECN	253	Principle of Macroeconomics[7]	3
MG	202	Business Organization & Management[8,9]	3
MK	130	Fundamentals of Marketing[10] (MKT 340)	3
		TOTAL CREDITS	**18**

Fourth Semester

AC	234	Taxation[5]	3
ACC	318	Cost Accounting[11]	3
FN	231	Business Finance[12] (FIN 323)	3
MG	226	Commercial Papers & Transactions (LE 207)	3
MG	296	Integrated Business Strategies[13]	3
		TOTAL CREDITS	**15**

HOURS REQUIRED FOR GRADUATION: 66

TRANSFER TO LEWIS COLLEGE OF BUSINESS AFTER COMPLETION OF ASSOCIATE DEGREE REQUIREMENTS

Fifth Semester

ACC	311	Intermediate Accounting I	3
ACC	348	Federal Taxation	3
LE	308	Commercial Law	3
MAT	203	Calculus for Business	3
		Arts/Humanities Elective	3
		CMM Elective	3
		TOTAL CREDITS	**18**

Sixth Semester

ACC	312	Intermediate Accounting II	3
ACC	341	Accounting Information Systems	3
		Accounting Elective	3
		International Studies Elective	3
		ISC Science Elective	4
		TOTAL CREDITS	**16**

Seventh Semester

ACC	414	Advance Accounting Problems	3
ACC	429	Auditing I	3
		Accounting Elective	3
		American Institutions Elective	3
		Art/Humanities Elective	3
		International Elective	3
		TOTAL CREDITS	**18**

Eighth Semester

ACC	499	Senior Seminar	3
MGT	460	Strategic Management	3
		Accounting Elective	3
		American Institutions Elective	3
ECN	340 or ECN 420		3
		Science Elective	3
		TOTAL CREDITS	**18**

1. AC 201 has a prerequisite of AC 103 or permission.
2. AC 221 has a prerequisite of AC 103, and IT 101 or permission.
3. IT 150 has a prerequisite of IT 101.
4. MAT 210 has a prerequisite of MAT 145.
5. AC 210 and AC 234 have a prerequisite of AC 201.
6. ENL 115 has a prerequisite of ENL 111.
7. ECN 253 has a prerequisite of ECN 250.
8. MG 202 has a prerequisite of MG 101.
9. MG 202 must be validated by passing MGT exam provided by LCOB or by taking MGT 422 and receiving a grade of “C” or better to receive credit for MGT 320.
10. MK 130 must be validated by passing MKT exam provided by LCOB.
11. ACC 318 has a prerequisite of AC 210.
12. FN 231 has a prerequisite of AC 201 and must be validated with a “C” or better in ECN 340 or ECN 420 to receive credit for FIN 323.
13. MG 296 has a prerequisite of 45 credit hours completed in the program.

BUSINESS ADMINISTRATION
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The increasing complexities of the business environment have created the need for individuals who possess a greater diversity of skills. Interpersonal, communication, analytical, decision-making, customer service, and computer skills are essential for success in business. Marshall Community and Technical College's Management Technology program provides these skills and prepares students for entry-level positions in organizations with career paths that eventually lead to supervisory and management positions. The program also prepares employed individuals for upward mobility within their organization.

The flexibility of the Management Technology curriculum allows students to tailor a course of study to meet their own career goals and interests. The Business Administration option is designed to train students who seek supervisory positions in a retail environment. Upon completion of the Associate in Applied Science Degree in Management Technology, the graduate will be able to:

- Demonstrate fundamental supervisory skills
- Apply knowledge of business computer software to business activities
- Apply relevant mathematical skills to business activities
- Demonstrate a working knowledge of ethical, legal, and social skills that relate to the business environment
- Make decisions after gathering and analyzing information
- Prepare and present written and oral communication
- Demonstrate knowledge specific to the specialized option

Career Outlook:

The Business Administration option provides an avenue for immediate employment and for advancement to upper levels of management. Employers seek graduates for positions ranging from business manager and sales representative to production supervisor and project planner. Graduates of the program obtain positions in manufacturing, retailing, construction, financial institutions, government and a host of other fields. Students also find this major to be of value in preparation for law school.

Salary Forecast:

While employment growth varies among industries, the U.S. Bureau of Labor predicts demand for general managers to grow as fast as all occupations through 2008. Demand will be greatest for those who possess the right skills - the skills obtained at Marshall Community & Technical College.

Retail supervisors/managers – median annual salary	$31,880
Non-retail supervisors/managers – median annual salary	$58,630

(Information obtained from the West Virginia, May 2005)

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Accreditation:

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Management Technology degree program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

BUSINESS ADMINISTRATION

MAJOR CODE - CM10 • CONCENTRATION CODE - CM16

FIRST YEAR

First Semester				Second Semester			
AC	103	Intro to Accounting (EDGE)	3	AAT	104	Records Management	3
ENL	111	Written Communication	3	AC	201	Financial Accounting[1]	3
IT	101	Fundamentals of Computers (EDGE)	3	EC	102	Basic Economics	3
MAT	115	Business Mathematics	3	MAT	210	Statistics for Business & Industry[2]	3
MG	101	Intro to Business (EDGE)	3	MK	130	Fundamentals of Marketing	3
		TOTAL CREDITS	**15**	MK	210	Customer Service[3]	3
						TOTAL CREDITS	**18**

SECOND YEAR

Third Semester				Fourth Semester			
COM	112	Oral Communication	3	AC	234	Taxation[7]	3
ENL	231	Technical Report Writing[4]	3	FN	231	Business Finance[7]	3
MG	181	Retailing	3	MG	226	Commercial Papers & Transaction	3
MG	202	Business Organization & Management[5]	3	MG	233	Personal Management[5]	3
		Recommended Elective[6]	3	MG	296	Integrated Business Strategies[8]	3
				MK	279	Advertising & Sales Promotion	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**18**

HOURS REQUIRED FOR GRADUATION: 66

Employment Opportunities:

Graduates with business management skills will find employment opportunities in a variety of business settings. Virtually every industry employs business managers; however, the largest employers of managers are the retail, wholesale, and service industries. The greatest expansion in the job market over the next ten years is expected to occur in the small business sector including employment prospects for business managers. Opportunities for advancement are enhanced by a student's motivation and desire to succeed.

Business Administration Option: This option offers employment opportunities in various types of profit and nonprofit businesses and organizations as management trainees. The focus is on retailing establishments. The mission of the A.A.S. Degree in Management Technology Business Administration Option is to prepare students in the fundamentals, principles, techniques, and skills essential to the theory and effective practice of business.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Rick Brown • Corbly Hall, Room 324
Phone: (304) 696-3012 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brownr@mctc.edu

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1. AC 201 has a prerequisite of AC 103 or permission.
2. MAT 210 has a prerequisite of MAT 115.
3. MK 210 has a prerequisite of ENL 111 or COM 111.
4. ENL 231 has a prerequisite of ENL 111 or COM 111.
5. MG 202 and MG 233 have a prerequisite of MG 101.
6. Recommended Electives: AC 221, AC 222, FN 141, FN 151, FN 163, HM 200, HM 210, HM 230, HM 250, HM 275, HM 285, IT 107, IT 115, IT 120, IT 150, ISM 133, LAS 101, and other courses recommended by a program advisor.
7. AC 234 and FN 231 have a prerequisite of AC 201 or AC 103.
8. MG 296 has a prerequisite of 45 credit hours completed in the program.

CALL CENTER SUPERVISION
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The increasing complexities of the business environment have created the need for individuals who possess a greater diversity of skills. Interpersonal, communication, analytical, decision-making, customer service, and computer skills are essential for success in business. Marshall Community & Technical College's Management Technology program provides these skills and prepares students for entry-level positions in organizations with career paths that eventually lead to supervisory and management positions. The program also prepares employed individuals for upward mobility within their organization.

The flexibility of the Management Technology curriculum allows students to tailor a course of study to meet their own career goals and interests. The Call Center Management program is designed to train students who seek management positions in a call center or the teleservice industry. Students completing these courses will be proficient in all facets of communication and will tailor their communication skills to the call center environment.

This program provides students with a deeper knowledge of current contact center management topics, operations and practices. Courses focus on the analytical skills to determine the needs of the call center industry and problem-solving skills to apply management to meet those requirements. Emphasis is placed on communication, teamwork, ethics, and the skills for managing diversity within the contact center industry.

Upon completion of the Associate in Applied Science Degree in Management Technology, the graduate will be able to:

- Demonstrate fundamental supervisory skills
- Apply knowledge of business computer software to business activities
- Apply relevant mathematical skills to business activities
- Demonstrate a working knowledge of ethical, legal, and social skills that relate to the business environment
- Make decisions after gathering and analyzing information
- Prepare and present written and oral communication
- Demonstrate knowledge specific to the specialized option

Career Outlook:

According to the Bureau of Labor Statistics, West Virginia has the highest number of individuals per capita employed in the call center and teleservice industry in the United States. The need for qualified supervisors should continue to grow in the future.

Salary Forecast:

	Huntington, WV (Median)	United States (Median)
Call Center Supervisor I (Inbound)	$38,118	$40,677
Call Center Supervisor II (Inbound)	$47,371	$50,662
Call Center Supervisor III (Inbound)	$63,637	$68,059
Call Center Supervisor I (Outbound)	$33,345	$35,797
Call Center Supervisor II (Outbound)	$44,673	$47,777
Call Center Supervisor III (Outbound)	$66,764	$71,403

Admission Requirements:

The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis. Students admitted to the program must be employed in a call center or teleservice industry by the start of the third semester.

CALL CENTER SUPERVISION

MAJOR CODE - CM10 • CONCENTRATION CODE - CM17

FIRST YEAR[1]

First Semester				Second Semester			
AC	103	Intro to Accounting (EDGE)	3	COM	112	Oral Communication	3
ENL	111	Written Communication[1]	3	MAT	210	Statistics for Business and Industry[3]	3
IT	101	Fundamentals of Computers (EDGE)	3	MG	105	Intro to Workplace Training	3
MAT	115	Business Mathematics[2]	3	MG	233	Personnel Management[4]	3
MG	101	Intro to Business (EDGE)	3	SS	201	Human Relations	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**15**

SECOND YEAR

Third Semester				Fourth Semester			
ENL	231	Technical Report Writing[6,7]	3	MG	203	Managing Call Center Teams[10]	3
MG	202	Business Organization & Management[4]	3	LAS	250	Employment Law[11]	3
MG	205	Call Center Environment/Technology[8]	3	MG	209	Occupational Safety	3
MG	207	Managing Call Center Data[9]	3	MG	299	Cooperative Work Experience[12]	3
		Recommended Elective[5]	3			Recommended Elective[5]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**15**

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

Call Center Supervision Option: This option offers employees of call center and teleservice industries the skills and knowledge they will need to move into supervisory positions. The Call Center Supervisor Option in Management Technology is open to students who are already employed at a call center or teleservice industry and want to prepare for the opportunity for advancement.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Rick Brown • Corbly Hall, Room 324
Phone: (304) 696-3012 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brownr@mctc.edu

1. Students must be working for a Teleservice/Call Center organization by the start of the third semester of the Associate in Applied Science in Management Technology-Call Center Supervision.
2. A higher level mathematics class may be substituted for MAT 115.
3. MAT 210 has a prerequisite of MAT 115, MAT 145, or MAT 150.
4. MG 202 and MG 233 have a prerequisite of MG 101.
5. Recommended Electives: AC 221, AC 222, FN 141, FN 151, IT 107, IT 115, IT 120, IT 150, ISM 133, LAS 101, AAT 136, AAT 160, AAT 255 and other courses recommended by a program advisor.
6. ENL 231 has a prerequisite of ENL 111 or COM 111.
7. COM 235 may be substituted for ENL 231.
8. MG 205 has a prerequisite of IT 101.
9. MG 207 has a prerequisite of MAT 210.
10. MG 203 has a prerequisite of MG 202 or SS 201.
11. LAS 250 has a prerequisite of MG 233.
12. MG 299 has a prerequisite of permission by Division Director or Program Coordinator.

INDUSTRIAL MANAGEMENT
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The increasing complexities of the business environment have created the need for individuals who possess a greater diversity of skills. Interpersonal, communication, analytical, decision-making, customer service, and computer skills are essential for success in business. Marshall Community & Technical College's Management Technology program provides these skills and prepares students for entry-level positions in organizations with career paths that eventually lead to supervisory and management positions. The program also prepares employed individuals for upward mobility within their organization.

The Industrial Management Technology option is specifically designed to provide students with the skills necessary to be successful in a position of supervisory leadership. Students can benefit from this program by becoming qualified for advancement into a supervisory position or a position of greater responsibility and influence.

Upon completion of the Associate in Applied Science Degree in Management Technology, the graduate will be able to:

- Demonstrate fundamental supervisory skills;
- Apply knowledge of business computer software to business activities;
- Apply relevant mathematical skills to business activities;
- Demonstrate a working knowledge of ethical, legal, and social skills that relate to the business environment;
- Make decisions after gathering and analyzing information;
- Prepare and present written and oral communication;
- Demonstrate knowledge specific to their specialized option.

Career Outlook:

This option offers employment opportunities in various types of profit and nonprofit businesses and organizations as management trainees. The focus is on manufacturing establishments. Employment of industrial production managers is expected to grow more slowly than the average for all occupations through 2012. However, a number of job openings will stem from the need to replace workers who transfer to other occupations or leave the labor force. Projected job growth varies by industry.

Salary Forecast:

The following information is provided by Salary.com. The ranges of salaries for the following industrial supervisor positions in Huntington, West Virginia, are:

Assembly Supervisor	$39,019 up to $71,010
Machine Shop Maintenance Supervisor	$41,543 up to $58,384
Machine Shop Production Supervisor	$31,737 up to $58,319
Materials Management Supervisor	$25,836 up to $49,331
Operations Supervisor	$28,282 up to $46,031

(Note that National figures are higher than the figures shown above. Also generally speaking for individuals to receive these salaries they must have work experience.)

Accreditation:

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Management Technology degree program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

Admission Requirements:

The college adheres to an open admissions policy, which means applicants with the high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

INDUSTRIAL MANAGEMENT

MAJOR CODE - CM10 • CONCENTRATION CODE - CM12

FIRST YEAR

Fall Semester				Spring Semester			
AC	103	Intro to Accounting (EDGE)	3	AAT	104	Records Management	3
ENL	111	Written Communication	3	AC	201	Financial Accounting[1]	3
IT	101	Fundamentals of Computers (EDGE)	3	ISM	133	Principles of Supervision and Management	3
MAT	145	Applications to Algebra	3	MAT	210	Statistics for Business and Industry[2]	3
MG	101	Introduction to Business (EDGE)	3	MK	210	Customer Service[3]	3
				MFE	120	Intro to Manual Machining[4]	4
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**19**

SECOND YEAR

Fall Semester				Third Semester			
COM	112	Oral Communication	3	AC	234	Taxation[9]	3
ENL	231	Technical Report Writing[5]	3	FN	231	Business Finance[9]	3
MK	130	Fundamentals of Marketing	3	MG	226	Commercial Papers & Transactions	3
MFE	220	Computer Aided Design I[6]	3	MG	233	Personnel Management[10]	3
		Manufacturing Elective[7]	3	MG	296	Integrated Business Strategies[11]	3
		Social Science Requirement[8]	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**15**

HOURS REQUIRED FOR GRADUATION: 67

Employment Opportunities:

This option offers employment opportunities in various types of profit and nonprofit businesses and organizations as management trainees. The focus is on manufacturing establishments.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

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1. AC 201 has a prerequisite of AC 103, or permission.
2. MAT 210 has a prerequisite of MAT 145.
3. MK 210 has a prerequisite of ENL 111 or COM 111.
4. MFE 120 has a prerequisite of MAT 145 or permission.
5. ENL 231 has a prerequisite of ENL 111 or COM 111.
6. MFE 220 has a prerequisite of permission.
7. Manufacturing Electives: all courses beginning with MT designator.
8. Social Science Requirement: Select from EC 102, SS 201, SS 210, or SS 215.
9. AC 234 and FN 231 have a prerequisite of AC 201.
10. MG 233 has a prerequisite of MG 101.
11. MG 296 has a prerequisite of least 45 credit hours completed in the program.

MANAGEMENT DUAL DEGREE
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The increasing complexities of the business environment have created the need for individuals who possess a greater diversity of skills. Interpersonal, communication, analytical, decision-making, customer service, and computer skills are essential for success in business. Marshall Community & Technical College's Management Technology program provides these skills and prepares students for entry-level positions in organizations with career paths that eventually lead to supervisory and management positions. The program also prepares employed individuals for upward mobility within their organization.

This program is designed for students who wish to transfer to Marshall University's Elizabeth McDowell Lewis College of Business baccalaureate program. Its flexibility permits the students to work with their college advisors to adapt the program to the requirements of the Marshall University transfer curriculum.

Career Outlook:

Graduates with business management skills will find employment opportunities in a variety of business settings. Virtually every industry employs business managers; however, the largest employers of managers are retail, wholesale, and service industries. The greatest expansion in the job market over the next ten years is expected to occur in the small business sector including employment prospects for business managers. Opportunities for advancement are enhanced by a student's motivation and desire to succeed.

Business Administration Option: This option offers employment opportunities in various types of profit and nonprofit businesses and organizations as management trainees. The focus is on retailing establishments. The mission of the A.A.S. Degree in Management Technology Business Administration Option is to prepare students in the fundamentals, principles, techniques, and skills essential to the theory and effective practice of business.

Salary Forecast:

While employment growth varies among industries, the U.S. Bureau of Labor predicts demand for general managers to grow as fast as all occupations through 2008. Demand will be greatest for those who possess the right skills - the skills obtained at Marshall Community & Technical College.

Financial manager	$55,070
Human resources manager	$49,010
Marketing manager	$57,300
Production manager	$56,300
Purchasing manager	$41,830
General manager	$55,890

The Association of Collegiate Business Schools and Programs (ACBSP) accredits the Management Technology degree program. The ACBSP is the only nationally recognized organization that grants specialized accreditation to two- and four-year college and university business programs.

(Information obtained from Occupational Outlook Handbook 2005)

Admission Requirements:

The MCTC adheres to an open admissions policy, which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis. Refer to the MU catalog for admission requirements for LCOB.

Employment Opportunities:

Call Center Supervision Option: This option offers employees of call center and teleservice industries the skills and knowledge they will need to move into supervisory positions. The Call Center Supervisor Option in Management Technology is open to students who are already employed at a call center or teleservice industry and want to prepare for the opportunity for advancement.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

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MANAGEMENT DUAL DEGREE

MAJOR CODE - CM10 • CONCENTRATION CODE - CM18

FIRST YEAR

First Semester

ENL	111	Written Communication	3
ECN	250	Principles of Microeconomics	3
IT	101	Fundamentals of Computers (EDGE)	3
MAT	115	Business Mathematics	3
MG	101	Introduction to Business (EDGE)	3
		TOTAL CREDITS	**15**

Second Semester

AAT	104	Records Management	3
AC	201	Financial Accounting I	3
COM	112	Oral Communication	3
ENL	231	Technical Report Writing[1,2]	3
ECN	253	Principles of Macroeconomics[3]	3
MK	130	Fundamentals of Marketing	3
		TOTAL CREDITS	**18**

SECOND YEAR

Third Semester

AC	210	Managerial Accounting	3
ENL	115	Written Communication II[5]	3
MAT	145	Applications in Algebra	3
MG	181	Retailing	3
MG	202	Business Organization & Management[6]	3
SS	215	Lifespan Psychology	3
		TOTAL CREDITS	**18**

Fourth Semester

AC	234	Taxation I[4]	3
FN	231	Business Finance[4]	3
MG	226	Commercial Papers & Transactions	3
MG	296	Integrated Business Strategies[7]	3
MK	279	Advertising and Sales Promotion	3
		TOTAL CREDITS	**15**

HOURS REQUIRED FOR GRADUATION: 66

Transfer to Lewis College of Business after Completion of Associate Degree Requirements

Fifth Semester

MGT	218	Business Statistics	3
MTH	203	Calculus for Business	3
		American Institutions (Multicultural)	3
RST	205	Intro to Religious Traditions of the West	3
		CMM Studies Elective	3
		TOTAL CREDITS	**15**

Sixth Semester

FIN	323	Principles of Business Finance	3
		International Studies Elective	3
MIS	290	Principles of Management Information Systems	3
		Science Elective	3
		Management Elective	3
		TOTAL CREDITS	**15**

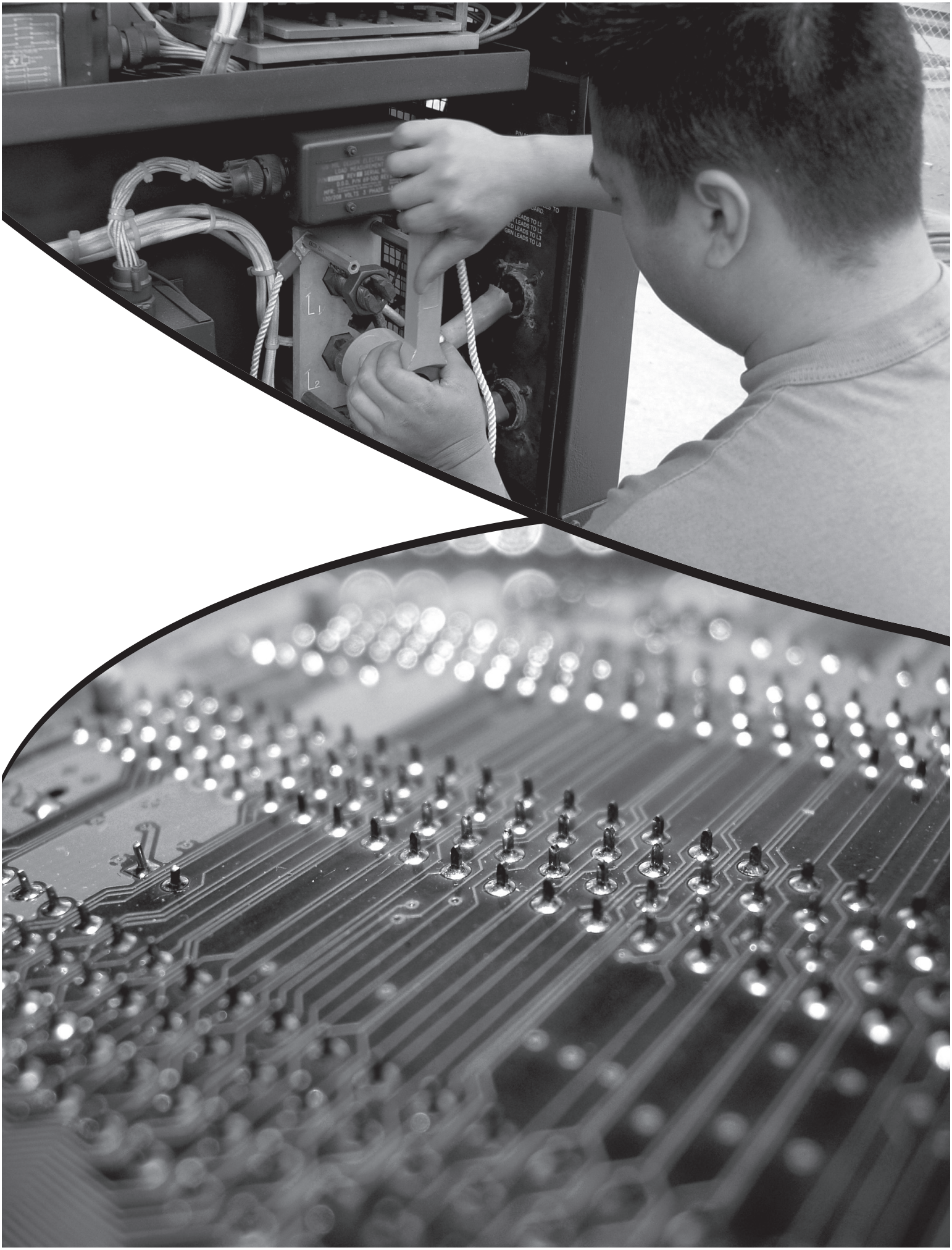
Seventh Semester

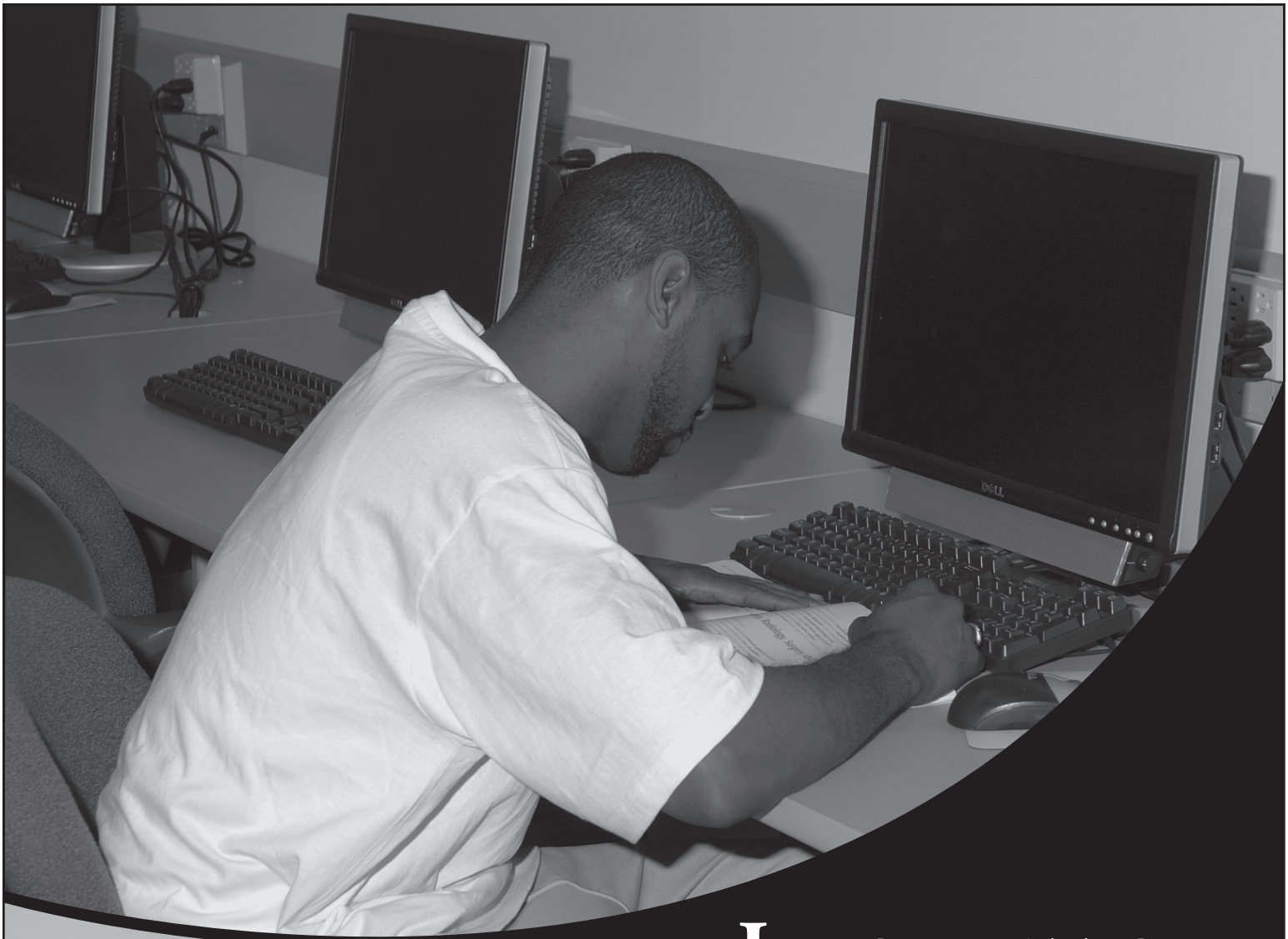
LE	308	Commercial Law or (MGT Elective)	3
MGT	360	Intro to Small Business Management	3
MGT	419	Business and Society	3
MGT	420	Operations Management	3
MGT	422	Organizational Human Behavior	3
MGT	424	Human Resource Management	3
		TOTAL CREDITS	**18**

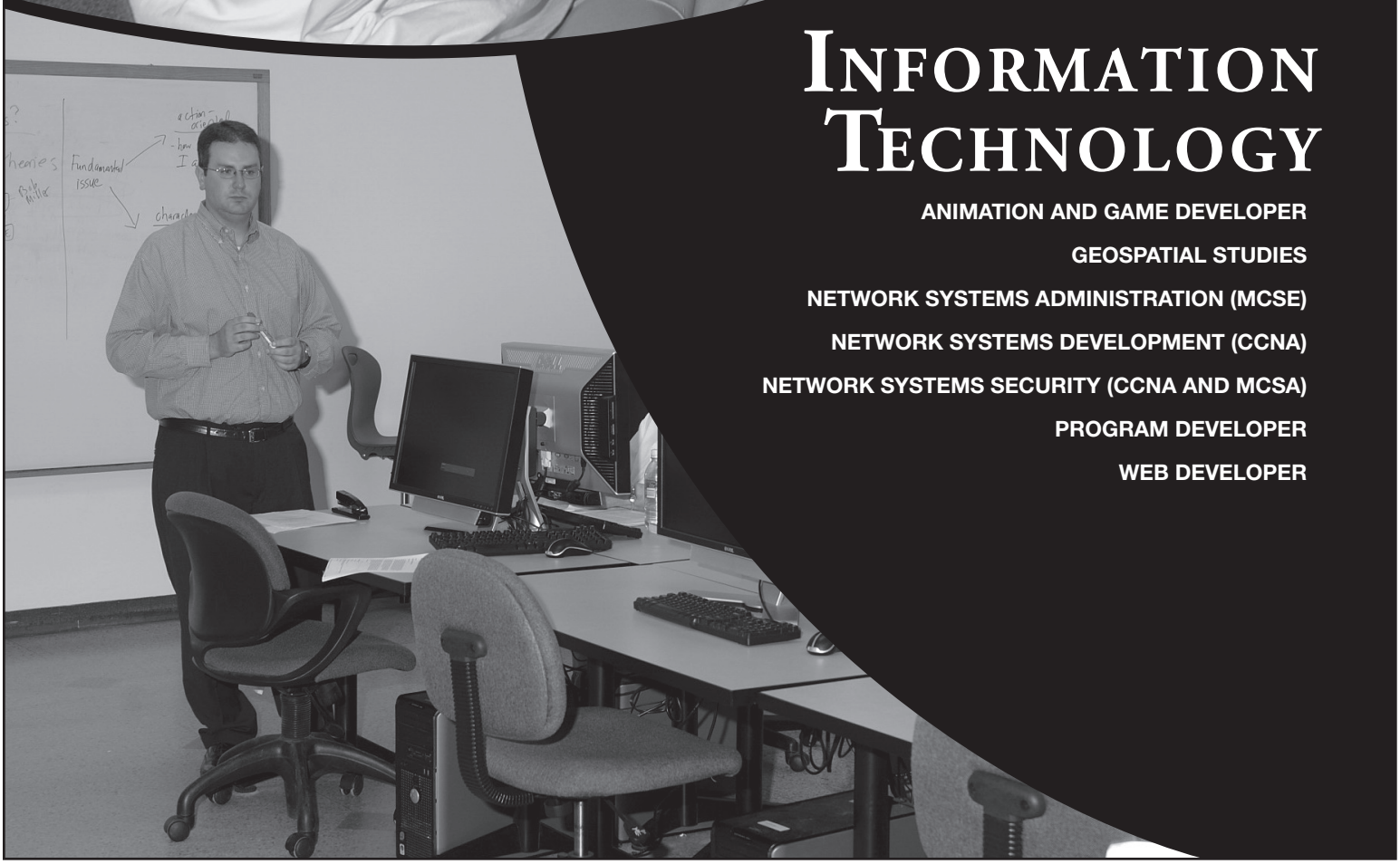
Eighth Semester

MGT	423	Organizational Development	3
MGT	425	Industrial Relations	3
MGT	460	Strategic Management	3
		ISC Science Elective	4
		American Institutions Elective	3
		International Economic Elective	3
		TOTAL CREDITS	**19**

1. ENL 231 has a prerequisite of ENL 111 or COM 111.
2. COM 235 may be substituted for ENL 231.
3. ECN 253 has a prerequisite of ECN 250.
4. AC 234 and FN 231 have a prerequisite of AC 201.
5. ENL 115 has a prerequisite of ENL 111 or COM 111.
6. MG 202 has prerequisite of MG 101.
7. MG 296 has a prerequisite of 45 credit hours completed in the program.







Information Technology

ANIMATION AND GAME DEVELOPER

GEOSPATIAL STUDIES

NETWORK SYSTEMS ADMINISTRATION (MCSE)

NETWORK SYSTEMS DEVELOPMENT (CCNA)

NETWORK SYSTEMS SECURITY (CCNA AND MCSA)

PROGRAM DEVELOPER

WEB DEVELOPER

ANIMATION AND GAME DEVELOPER
ASSOCIATE IN APPLIED SCIENCE

Program Description:
Students who receive an A.A.S. in Information Technology (IT) will possess a broad base of computer skills and knowledge. The curriculum is designed to maintain flexibility in order to compete in the changing workforce. Today's games are very complex. They require teams of programmers, designers, artists, testers, advertisers, and producers to organize and develop them. Training needed for game development is enormous, warranting a complex education of multiple courses in multiple fields. The Animation and Gaming curriculum is designed to provide training in principles and techniques used to create interactive 2D and 3D computer games.

- Design Software
- Programming Languages
- Modeling and Animation Skills
- Web Graphic Design
- Game Engines used to Design and Develop Games

IT 299, an internship course taken in the fourth semester, requires the student to apply knowledge and skills acquired in the classroom to a real-world employment environment.

Career Outlook:
According to the U.S. Dept. of Labor Occupational Outlook Handbook, 2008-09, employment in professional, scientific, and technical services will grow by 28.8 percent and add 2.1 million new jobs by 2016. Employment in computer systems design and related services will grow by 38.3 percent and add nearly one-fourth of all new jobs in professional, scientific, and technical services. Employment growth will be driven by the increasing reliance of business on information technology to decrease business costs and the continuing importance of maintaining system and network security. Management, scientific, and technical consulting services also will grow at a staggering 768 percent and account for another third of growth in this super sector. Demand for these services will be spurred by the increased use of new technology and computer software and the growing complexity of business.

One of the most important needs of an IT student is the willingness to learn and to keep on learning throughout one's professional career. The IT Division can provide students with the knowledge and skills to start on that path. The successful student will provide the energy, enthusiasm, and drive to continue to acquire new knowledge and skills in order to succeed in the rapidly changing world of Information Technology.

Salary Forecast:
According to November 2006 West Virginia Bureau of Labor Occupational Employment and Wage Estimates for the Metropolitan Area of Huntington-Ashland, WV-KY-OH, median annual earning of computer support specialists/programmers was $41,160 in 2006.

Admission Requirements:
The college adheres to an open admission policy which means applicants with a high school diploma or GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Contact Information:
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ANIMATION AND GAME DEVELOPER

MAJOR CODE - CI20 • CONCENTRATION CODE - C12X

FIRST YEAR

Fall Semester[1]				Spring Semester			
ENL	111	Written Communication	3	ENL	115	Written Communication II	3
IT	101	Fundamentals of Computers (EDGE)	3	IT	115	Intro to BASIC[2]	3
IT	107	Fundamentals of the Internet	3	IT	171	Intro to Gaming Concepts II	3
IT	171	Introduction to Gaming Concepts I	3	IT	221	Computer Operating Systems[3]	3
IT	120	Operating Systems I[2]	4	IT	270	Computer Repair[2] (EDGE)	3
IT	299	Information Technology Internship[10]	1	IT	299	Information Technology Internship[10]	1
MAT	145	Applications in Algebra	3	SCI	201	Integrated Science	4
		TOTAL CREDITS	**20**			**TOTAL CREDITS**	**20**

SECOND YEAR

Fall Semester				Spring Semester			
ENL	231	Technical Report Writing[4]	3	IT	213	Web/Graphic Design	3
IT	212	Publishing on the Internet[5]	3	IT	240	Internet Data Communications[5]	3
IT	215	Advanced Programming (C++)[8]	3	IT	242	Advanced Internet[9]	3
IT	250	Applications to Databases[2]	3	IT	272	Intro to 3D Modular Programming	3
IT	276	Computer Maintenance[6] (EDGE)	3	IT	299	Information Technology Internship[10]	1
IT	299	Information Technology Internship[10]	1	SS	210	Fundamentals of Sociology	3
MAT		Recommended Elective Mathematics[7]	3			**TOTAL CREDITS**	**16**
		TOTAL CREDITS	**19**				

HOURS REQUIRED FOR GRADUATION: 75

Employment Opportunities:

- Programmer
- Web/game designer
- Product tester
- Animation designer
- Project manager
- Software publisher
- Educational support services

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

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1. Students are expected to have basic knowledge of computers including operating systems such as Windows XP or Vista and Microsoft Office 2003 or Office 2007 before entering this program. The student must register for IT 101 during his or her first semester or successfully pass a challenge exam for IT 101.
2. IT 115, IT 120, IT 250, and IT 270 have a prerequisite of IT 101.
3. IT 221 has a prerequisite of IT 120.
4. IT 212 and IT 240 have a prerequisite of IT107.
5. IT 276 has a prerequisite of IT 270.
6. MAT 146, MAT 150, MAT 210, and MAT 215. (Select one based on program track – verify specific prerequisite – see advisor)
7. IT 215 has a prerequisite of IT 115.
8. IT 242 has a prerequisite of IT 212.
9. IT 272 has a prerequisite of IT 215.
10. Permission of Division Director is required in order to enroll in IT 299.

GEOSPATIAL STUDIES
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Marshall Community & Technical College offers the student the opportunity to work with and develop technical skills with image and image-processing software products. The application of satellite imaging, aerial photography, remote sensing, and geographical information systems is a large growth area with application to many career fields where image enhancement and data analysis can be used in decision making situations. The geospatial worker should possess basic skills in the manipulation of existing GIS software, problem identification and solving; mastery of analytic geospatial tools; and critical topics in the fields of computer science, mathematics and statistics, and information technology.

The geospatial workforce must be capable of dealing with a continuing pattern of rapid change, as well as with the substantial challenge of adapting existing knowledge and tools to uses in a variety of new, complex situations. Above-average knowledge of computer and information science, as well as the ability to spend their careers in near-continuous learning mode, become critical characteristics at nearly all levels of the future geospatial workforce.

Career Outlook:

The U.S. Department of Labor recently identified the growing importance of the geospatial based industry, together with 13 other sectors, as the focus of its High-Growth Job Training Initiative. The 14 sectors were selected based on the following criteria:

1. They are projected to add substantial numbers of new jobs to the economy or affect the growth of other industries, or
2. They are existing or emerging businesses being transformed by technology and innovation requiring new skill sets for workers.

In addition to the geospatial industry, only biotechnology and nanotechnology were identified as being among the most important of these emerging and evolving fields (Gewin 2004). While new career titles are being created, the U.S. Department of Labor states that overall employment of surveyors, cartographers, photogrammetrists, and surveying technicians is expected to grow about as fast as the average for all occupations through the year 2014.

Salary Forecast: (U.S. Department of Labor latest update, 2004)

Median annual earnings of surveying and mapping technicians were $30,380 in 2004.
Median annual earnings of cartographers and photogrammetrists were $46,080 in 2004.
Median annual earnings of surveying and mapping technicians employed in architectural, engineering, and related services were $28,610 in May 2004, while those employed by local governments had median annual earnings of $34,810.

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Common Career Opportunities and Approximate Salaries:

- Technician - junior position, generally 1 to 5 years experience
  ($20,000 to 29,999 13%) ($30,000 to 39,999 33%) ($40,000 to 49,999 19%)

- Analyst - a more senior tech. responsible for spatial analysis and more senior responsibilities on projects. Generally has 3-7 years experience. ($30,000 to 39,999 27%) ($40,000 to 49,999 34%) (> $50,000 28%)

- Programmer - educational focus was on programming skills. Typically skilled in web programming, VB, MapBasic, AML, etc... Generally has at least 2 years experience. ($40,000 to 49,999 18%) ($50,000 to 59,999 24%) ($60,000 to 69,999 15%)

GEOSPATIAL STUDIES

MAJOR CODE – CI20 • CONCENTRATION CODE – CI27

FIRST YEAR

COMPONENT I - General Education Requirements			COMPONENT II Geospatial Computer Requirements		
COM	112	Oral Communication	IT	120	Operating Systems I
ENL	111	Written Communication	IT	221	Operating Systems II[3]
ENL	115	Written Communication II	IT	250	Applications to Databases
IT	101	Fundamentals of Computers (EDGE)	IT	270	Computer Repair (EDGE)
MAT	145	Applications in Algebra	IT	276	Computer Maintenance[4] (EDGE)
MAT	146	Applications in Trigonometry			
TOTAL CREDITS		**18**	**TOTAL CREDITS**		**16**

General Education Electives		Geospatial Studies Requirements		
Humanities Elective	3	IT 160	Geographic Information System Concepts	3
Science Elective[1]	8	IT 165	Spatial Analysis & 3D Modeling[5]	3
Social Science Elective[2]	6	IT 260	Integration of GIS & RS Systems[5]	3
		IT 266	Image Web Server Development[5]	3
		IT 299	Internship[6]	3
TOTAL CREDITS	**17**	**TOTAL CREDITS**		**15**

HOURS REQUIRED FOR GRADUATION: 66

Employment Opportunities:

- Business: financial services, insurance, real estate, retail, and commercial business cartography and map publishing
- Communications: location-based services, media and press, telecommunications conservation
- Defense: defense and intelligence
- Education: schools, libraries, and museums
- Engineering: civil engineering, surveying
- Government: economic development, elections, federal, homeland security, land records, law enforcement, public safety, state and local sustainable development, urban and regional planning
- Health and human services: hospitals and health systems, public health and human services
- Natural resources: agriculture, archaeology, cave, environmental management, forestry, marine and coast, mining and earth science, petroleum, pipeline, water resources
- Transportation: logistics, transportation systems and networks
- Utilities: electric and gas, water/wastewater

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

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1. SCI 110 and another 100-level or above natural science class.
2. Choose from EC 102, SS 201, SS 210, and SS 215.
3. IT 221 has a prerequisite of IT 120
4. IT 276 has a prerequisite of IT 270
5. IT 165, IT 260, and IT 266 have a prerequisite of IT 160
6. Permission of Program Coordinator or Dean is required in order to enroll in IT 299.

NETWORK SYSTEMS DEVELOPMENT (CCNA)
ASSOCIATE IN APPLIED SCIENCE

Program Description:
The Cisco Networking Academy at Marshall Community & Technical College offers Cisco Certified Network Associate (CCNA) training that prepares individuals to install, configure, and operate LAN, WAN, and dial access services for enterprise organizations with networks from 100 to more than 500 nodes. Concepts laboratory exercises focus on IP, Ethernet based LANs, Frame Relay and Serial WANs, interior routing protocols such as RIP and IGRP and exterior protocols such as BGP. The Cisco Networking Academy Program is a comprehensive-learning program that provides students with the IT skills essential in a global economy. The Networking Academy delivers web-based content, online assessment, student performance tracking, hands-on labs, instructor support, and preparation for the CCNA industry-standard certifications.

Career Outlook:
The U.S. Department of Labor states that Network Systems and Data Communications Analysts will see an increase in employment growth of 91.4% between 2002 and 2012. The computer systems design and related services industry is expected to be one of the top-ten fastest growing industries in the U.S. economy, projected to add more than 600,000 jobs between 2002 and 2012. Professionals and specialists will see the best prospects for employment because they have the higher level skills necessary to stay abreast of rapid changes in technology. (bls.gov/oco/cg/cgs033.htm).

Salary Forecast:
In a 2006-2007 Salary Survey conducted by TCP Magazine (http://tcpmag.com/salarysurveys/), CCNA's reported average annual salaries of $47,070 for individuals with at least three years of experience. The U.S. Department of Labor listed the Huntington, WV - Ashland, KY Metropolitan Area average annual wage for Network Systems and Data Communications Analysts at $43,410

(http://stats.bls.gov/oes/current/oes_26580.htm#b15-0000)

Admission Requirements:
The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Career Description:
The U.S. Department of Labor states that Network Systems and Data Communications Analysts analyze, design, test, and evaluate network systems, such as local area networks (LAN), wide area networks (WAN), Internet, intranet, and other data communications systems; perform network modeling, analysis, and planning; research and recommend network and data communications hardware and software. This includes telecommunications specialists who deal with the interfacing of computer and communications equipment. Analysts may supervise computer programmers. (stats.bls.gov/oes/current/oes151081.htm).

NETWORK SYSTEMS DEVELOPMENT (CCNA)

MAJOR CODE – CI20 • CONCENTRATION CODE – CI25

FIRST YEAR

Fall Semester[1]				Spring Semester			
ENL	111	Written Communication	3	COM	112	Oral Communication	3
IT	101	Fundamentals of Computers[1] (EDGE)	3	IT	115	Intro to BASIC	3
IT	120	Operating Systems I[1]	4	IT	221	Operating Systems II	3
IT	131	Intro to Networking (EDGE)	4	IT	141	Networking Systems II[2] (EDGE)	4
MAT	145	Applications in Algebra	3	IT	230	Network Communications	3
		TOTAL CREDITS	**17**			**TOTAL CREDITS**	**16**

SECOND YEAR

Fall Semester				Spring Semester			
ENL	231	Technical Report Writing[6]	3	IT	225	Fundamentals of Wireless LANs[8]	4
IT	231	Networking Systems III[4]	4	IT	241	Networking Systmes IV[5] (EDGE)	4
IT	224	Fundamentals of Network Security[7]	3	IT	276	Computer Maintenance[9] (EDGE)	3
IT	270	Computer Repair[1] (EDGE)	3	IT	299	Information Technology Internship[10]	3
SS	201	Human Relations	3			Approved Math/Science Elective[11]	3
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**17**

HOURS REQUIRED FOR GRADUATION: 66

Employment Opportunities:

- Network administrator
- Network engineer
- Systems support technician
- Network designer
- Network security systems designer

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

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1. Students are expected to have basic knowledge of computers including operating systems such as Windows 2003 or XP and Microsoft Office 2003 or XP before entering this program. The student must register for IT 101 during his or her first semester or successfully pass a challenge exam for IT 101.
2. IT 141 has a prerequisite or co-requisite of IT 131.
3. IT 221 has a prerequisite or co-requisite of IT 120.
4. IT 231 has a prerequisite of IT 141.
5. IT 241 has a prerequisite or co-requisite of IT 231.
6. ENL 231 has a prerequisite ENL 111 or COM 111.
7. IT 224 has a prerequisite of IT 217 or permission.
8. IT 225 has a prerequisite of IT 141.
9. IT 276 has a prerequisite of IT 270.
10. Permission of Program Coordinator/or Dean is required in order to enroll in IT 299.
11. The following courses are approved as Math/Science electives: MAT 146, MAT 150, MAT 215, MAT 215, SCI 101, SCI 110, BIOL 210, SCI 220, and BIOL 257.

NETWORK SYSTEMS ADMINISTRATION (MCSE)
ASSOCIATE IN APPLIED SCIENCE

Program Description:

As a leading Microsoft IT Academy, Marshall Community & Technical College offers the Network Systems Administration option to help prepare students for the Microsoft Certified Systems Engineer (MCSE) Certification examinations. The curriculum and course materials are designed by Microsoft, and the College's instructors are Microsoft Certified Trainers (MCT) with industry experience that take a personal interest in mentoring students through every step of the certification process.

Career Outlook:

The U.S. Department of Labor – Bureau of Labor Statistics states that computer-related jobs (IT) hold numerous positions within the Top-20 Fastest Growing Occupations in the country. Additionally, IT jobs are reported to have the highest earning of any of the occupations in the list.

Computer occupations are expected to be some of the fastest growing in the U.S. economy and will account for 5 out of the 20 fastest growing occupations over the next decade through 2015. Employment growth will be driven by the increasing reliance of businesses on information technology and the continuing importance of maintaining system and network security. In addition to high growth rates, computer and healthcare occupations combined will add more than 1.5 million new jobs. High growth rates among computer occupations reflect projected rapid growth in the computer and data processing industries.

Management, scientific and technical consulting services will grow very rapidly, by 55.4%, spurred by the increased use of new technology and the growing complexity of business.

Salary Forecast:

Although salaries vary a great deal, reflecting differences in skill, experience, and amount of education, the salaries for the job titles in the following table reflects HR Reported data as of January 2007 for Huntington, West Virginia.

Job Title	10th Percentile	Median	90th Percentile
LAN Support I	$34,609	$44,683	$54,757
LAN Support II	$40,527	$52,630	$64,733
LAN Support III	$49,715	$66,789	$83,863
Network Administrator I	$34,026	$43,828	$53,630
Network Administrator II	$41,639	$53,351	$65,063
Network Administrator III	$47,609	$62,872	$78,134
Network Administrator IV	$54,694	$71,227	$87,760
Network Administrator V	$64,276	$81,494	$98,711
Network Engineer I	$37,706	$54,617	$71,528
Network Engineer II	$48,212	$63,034	$77,855
Network Engineer III	$58,073	$75,374	$92,655
Network Security Systems Manager	$44,231	$79,047	$113,862

Admission Requirements:

The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Career Description:

The Microsoft Certified Systems Engineer (MCSE) credential is the premier certification for professionals who analyze the business requirements and design and implement the infrastructure for business solutions based on the Microsoft Windows platform and Microsoft Server software. It is one of the most widely recognized and sought after technical certifications in the IT industry, demonstrating to employers, clients and colleagues that an individual has achieved expertise in this area of Information Technology.

NETWORK SYSTEMS ADMINISTRATION (MCSE)

MAJOR CODE – CI20 • CONCENTRATION CODE – CI24

FIRST YEAR

Fall Semester[1]				Spring Semester			
ENL	111	Written Communication	3	COM	112	Oral Communication	3
IT	115	Intro to BASIC[2]	3	ENL	231	Technical Report Writing[3]	3
IT	120	Operating Systems I[2]	4	IT	221	Operating Systems II[4]	3
IT	270	Computer Repair[2,*] (EDGE)	3	IT	276	Computer Maintenance[5,*] (EDGE)	3
MAT	145	Applications in Algebra	3	IT	230	Network Communications	3
IT	101	Fundamentals of Computers[1] (EDGE)	3	SS	201	Human Relations	3
		TOTAL CREDITS	**19**			**TOTAL CREDITS**	**18**

SECOND YEAR

Fall Semester				Spring Semester			
IT	210	Networking Administration I[6,11]	3	IT	219	Networking Administration V[7,8]	3
IT	211	Networking Administration II[6]	3	IT	222	Networking Administration VI[7,8]	3
IT	216	Networking Administration III[6]	3	IT	223	Networking Administration VII[7,8]	3
IT	217	Networking Administration IV[6]	3	IT	224	Fundamentals of Network[8]	3
		Approved Math Elective[12]	3	IT	240	Internet Data Communications[9]	3
				IT	299	Information Technology Internship[10]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**18**

HOURS REQUIRED FOR GRADUATION: 70

Employment Opportunities:

- Network administrator
- Network engineer
- Systems support technician
- Network designer
- Network security systems designer

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

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Patrick Smith • Corbly Hall, Room 309
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1. Students are expected to have basic knowledge of computers including operating systems such as Windows XP or 2003 and Microsoft Office XP or 2003 before entering this program. The student must register for IT 101 (EDGE) during his or her first semester or successfully pass a challenge exam for IT 101 (EDGE).
2. IT 115, IT 120, and IT 270 have prerequisite of IT 101.
3. ENL 231 has a prerequisite of ENL 111 or COM 111 or permission.
4. IT 221 has a prerequisite of IT 120.
5. IT 276 has a prerequisite of IT 270.
6. Networking Administration classes IT 210, IT 211, IT 216 and IT 217 must be taken concurrently. These classes cannot be taken individually.
7. Networking Administration classes IT 219, IT 222 and IT 223 must be taken concurrently. These classes cannot be taken individually.
8. IT 219, IT 222, IT 223, and IT 224 have a prerequisite of IT 217.
9. IT 240 has a prerequisite of IT 210.
10. Permission of Program Coordinator/or Dean is required in order to enroll in IT 299.
11. IT 210 has a prerequisite of IT 270 and IT 276 or permission.
12. The following courses are approved as Math/Science electives: MAT 146, MAT 150, MAT 215, MAT 215, SCI 101, SCI 110, BIOL 210, SCI 220, and BIOL 257.

**IT 270 and IT 276 prepare students for A+ Certification.*

NETWORK SYSTEMS SECURITY (CISCO & MCSA) ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Associate in Applied Science Degree Program in Network Systems Security offers comprehensive network training from Marshall Community & Technical College's Microsoft Information Technology Academy and Cisco Networking Academy. Within the two-year Associate Degree program, students take courses developed by Microsoft and Cisco, providing specialized skills in network administration, design, and security. Students will take courses preparing them for the following certifications:

CompTIA's A+ Hardware and Operating Systems
CompTIA's Linux+
CompTIA's Security+
CompTIA's Server+
Microsoft's MCSA (Microsoft Certified System Administrator)
Cisco's CCNA (Cisco Certified Network Associate)
CISCO Firewall Specialist
PIX Firewall Advanced exams Cisco's Wireless LAN Support Specialist

Career Outlook:

Released on February 14, 2003, the National Strategy to Secure Cyberspace identifies a need for training programs in cyber security to produce a workforce capable of securing our nation's information technology infrastructure (http://csrc.nist.gov/policies/cyberspace_strategy.pdf). A recent IDC survey shows the total information technology security market revenues, including software, hardware, and services, is expected to increase from $17 billion in 2001 to $45 billion by 2006, thus fueling a 24% rise in spending for network security services. For more information visit (http://www.idc.com), then search for February 4, 2003 Press Release entitled "Total IT Security Market."

Salary Forecast:

Salary ranges depend upon geographic location of the job. The U.S. Department of Labor listed the Huntington, WV - Ashland, KY Metropolitan Area average annual wage for Network Systems and Data Communications Analysts at $43,410 (http://stats.bls.gov/oes/current/oes_26580.htm#b15-0000).

In a 2006-2007 Salary Survey conducted by (http://tcpmag.com/salarysurveys/), CCNA's reported average annual salaries of $47,070 for individuals with at least three years of experience and Cisco Firewall Specialists reported an average salary of $86,520 for individuals with 5 to 10 years of experience.

Career Description:

A well-rounded network professional is capable of performing network administration, design, maintenance, and security on a variety of network operating systems and devices. Microsoft Certified Systems Administrators manage and troubleshoot system environments running the Windows 2003 operating system. Cisco Certified Network Associates design, build, and maintain computer networks using a variety of network devices. CompTIA Security+ and Cisco Network Security Specialists design and implement security solutions that reduce network vulnerability. Cisco Wireless LAN Support Specialists implement and troubleshoot Wireless LANs. MCTC's Network Systems Security option provides fundamental networking knowledge and skills with specific network security training crucial for entry into information security positions in public corporations and government entities.

Contact Information:

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NETWORK SYSTEMS SECURITY (CISCO & MCSA)

MAJOR CODE – CI20 • CONCENTRATION CODE – CI26

FIRST YEAR

Fall Semester[1]				Spring Semester			
ENL	111	Written Communication	3	COM	112	Oral Communication	3
IT	120	Operating Systems I[1]	4	IT	224	Network Security Fundamentals[9]	3
IT	131	Intro to Networking[1] (EDGE)	4	IT	141	Networking Systems II[2] (EDGE)	4
IT	270	Computer Repair[1] (EDGE)	3	IT	276	Computer Maintenance[6] (EDGE)	3
MAT	145	Applications in Algebra	3	IT	230	Network Communications	3
				SS	201	Human Relations	3
TOTAL CREDITS			**17**	**TOTAL CREDITS**			**19**

SECOND YEAR

Fall Semester				Spring Semester			
IT	210	Networking Administration I[5,7]	3	IT	225	Fundamentals of Wireless LANs[9]	4
IT	211	Networking Administration II[5]	3	IT	226	Networking Security Routers[10]	3
IT	216	Networking Administration III[5]	3	IT	227	Networking Security Firewalls[11]	3
IT	217	Networking Administration IV[5]	3	IT	299	Information Technology Internship[12]	3
IT	231	Networking Systems III[3] (EDGE)	4	IT	241	Networking Systems IV[4] (EDGE)	4
TOTAL CREDITS			**16**	**TOTAL CREDITS**			**17**

HOURS REQUIRED FOR GRADUATION: 69

Employment Opportunities:

- Network administrator
- Web designer
- Systems support technician
- Network designer
- Security solutions designer
- Help desk technician
- Hardware technician
- Software applications

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

1. Students are expected to have basic knowledge of computers including operating systems such as Windows XP or 2003 and Microsoft Office XP or 2003 before entering this program. The student must register for IT 101 during his or her first semester or successfully pass a challenge exam for IT 101.
2. IT 141 has a prerequisite or co-requisite of IT 131
3. IT 231 has a prerequisite of IT 141, Networking Systems II, or Cisco Semester 2, and a co-requisite of IT 241.
4. IT 241 has a prerequisite or co-requisite of IT 231.
5. Networking Administration classes IT 210, IT 211, IT 216 and IT 217 must be taken concurrently. These classes cannot be taken individually.
6. IT 276 has a prerequisite of IT 270.
7. IT 210 has a prerequisite of IT 270 or permission.
8. IT 224 has a prerequisite of IT 217 or MCSA certification.
9. IT 225 has a prerequisite of IT 141 or CCNA certification or Cisco Semester 2.
10. IT 226 has a prerequisite of IT 241 or Networking Systems IV or CCNA or Cisco Semester 4.
11. IT 227 has a prerequisite of IT 241 or Networking Systems IV or CCNA or Cisco Semester 4.
12. Permission of Program Coordinator/or Dean is required in order to enroll in IT 299.

PROGRAM DEVELOPER
ASSOCIATE IN APPLIED SCIENCE

Program Description:
Students who receive an A.A.S. in Information Technology (IT) will possess a broad base of computer skills and knowledge. The curriculum is designed to maintain maximum flexibility in order to compete in the changing workforce. In addition to completing a core curriculum including operating systems (Windows and UNIX), technical mathematics and technical report writing, the student will select an area of specialization. One of the IT specialization options is Program Developer. Consider it "filling the computer's brain" or "creating" the computer's job description. It is the art of programming. The Information Revolution has created the need for a new kind of professional: someone skilled in locating, organizing, manipulating, filtering, and presenting information. Courses required in the Program Developer option, such as IT 115 and IT 215 (Introduction to Programming and Advanced Programming), IT 250 (Applications to Databases), IT 212 and IT 242 (Publishing on the Internet and Advanced Internet) provide the opportunity for IT students to gain valuable and marketable skills in locating, organizing, manipulating, filtering, and presenting information. IT 299, an internship course taken in the fourth semester, requires the student to apply knowledge and skills acquired in the classroom to a real-world employment environment.

Career Outlook:
A recent Information Technology Association of America report titled "The Employment Outlook in Today's IT" estimates the number of currently unfilled IT positions at 230,000 for businesses with 100 or more employees. This translates to 10% of the current workforce or roughly three vacancies for each company. The American Electronics Association released two key reports, "Cybernation" and "Cyberstates," that provide an in-depth view of the high-tech industry and its impact on society. The reports provide information about current employment, wages, and other industry details on a state-by-state basis. Key findings include:

There is a major shift in the industry from electronics and computer hardware to IT services and information management. IT services and management now constitute one of the fastest-growing industries in the nation. One of the most important requirements one needs as an IT student is the willingness to learn and to keep on learning throughout one's professional career. The IT Division can provide students with the knowledge and skills to start on that path. The successful student will provide the energy, enthusiasm, and drive to continue to acquire new knowledge and skills in order to succeed in the rapidly changing world of Information Technology.

Salary Forecast:
According to the National Association of Colleges & Employers (http://www.bls.gov), starting salary offers for computer programmers averaged $49,928 annual in 2007.

Admission Requirements:
The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission.

PROGRAM DEVELOPER

MAJOR CODE – CI20 • CONCENTRATION CODE – CI23

FIRST YEAR

Fall Semester[1]				Spring Semester			
ENL	111	Written Communication	3	COM	112	Oral Communication	3
IT	101	Fundamentals of Computers (EDGE)	3	IT	115	Intro to BASIC[2]	3
IT	107	Fundamentals of Internet	3	IT	150	Applications to Spreadsheets[2] (EDGE)	3
IT	120	Operating Systems I[2]	4	IT	221	Computer Operating Systems[3]	3
MAT	145	Applications in Algebra	3	IT	270	Computer Repair[2] (EDGE)	3
						Recommended Computer Elective[4]	3
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**18**

SECOND YEAR

Fall Semester				Spring Semester			
ENL	231	Technical Report Writing[5]	3	IT	215	Advanced Programming[8]	3
IT	212	Publishing on the Internet[6]	3	IT	240	Internet Data Communications[6]	3
IT	230	Network Communications[3]	3	IT	242	Advanced Internet[9]	3
IT	250	Applications to Databases[2]	3	IT	299	Information Technology Internship[10]	3
IT	276	Computer Maintenance[7] (EDGE)	3	SS	201	Human Relations	3
						Approved Math/Science Elective[11]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**18**

HOURS REQUIRED FOR GRADUATION: 67

Employment Opportunities:

- Network administrator
- Web designer
- Systems support technician
- Network designer

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Rhonda Scragg • Corbly Hall, Room 313
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1. Students are expected to have basic knowledge of computers including operating systems such as Windows 2000 or XP and Microsoft Office 2000 or XP before entering this program. The student must register for IT 101 during his or her first semester or successfully pass a challenge exam for IT 101.
2. IT 115, IT 120, IT 150, IT 250, and IT 270 have a prerequisite of IT 101.
3. IT 221 and IT 230 have a prerequisite of IT 120.
4. The following list of courses may be used as computer electives: IT 131, MIS 207, MIS 209, MIS 290, or IST 130.
5. ENL 231 has a prerequisite of ENL 111 or COM 111.
6. IT 212 and IT 240 have a prerequisite of IT 107.
7. IT 276 has a prerequisite of IT 270.
8. IT 215 has a prerequisite of IT 115.
9. IT 242 has a prerequisite of IT 212.
10. Permission of Program Coordinator/or Dean is required in order to enroll in IT 299.
11. The following courses are approved as Math/Science electives: MAT 146, MAT 150, MAT 215, MAT 215, SCI 101, SCI 110, BIOL 210, SCI 220, and BIOL 257.

WEB DEVELOPER
ASSOCIATE IN APPLIED SCIENCE

Program Description:
Students who graduate with the Web Developer option can expect to find employment at an Internet Service Provider (ISP), or computer consulting firm or as an entry-level position within a computer department. The student will be prepared with specific job skills that include web authoring, web developer, and database support.

Career Outlook:
Organizations are increasingly using the World Wide Web for a diverse set of business purposes. Web sites are used for marketing, sales, communications, public relations, and training. Careers in Web development involve the design and maintenance of such sites. Web developers typically work with a client to determine the needs of the organization. A design will be created, tested and documented. Some positions in the Web development require creativity. The majority of positions are found at companies that specialize in Web development and multimedia creations, but some large corporations hire Web developers for in-house design as well. The array of organizations seeking Web developers is extremely diverse. These organizations may include publishing firms, electronic game companies, educational institutions, marketing firms, government agencies and many more.

The demand for skilled computer professionals is expected to increase as organizations attempt to maximize the efficiency of their computer systems. As international and domestic competition increases, organizations will face growing pressure to use technological advances in areas such as factory and office automation and telecommunications technology. Many more computer trained individuals will be needed to incorporate these advances in new or existing systems.

Salary Forecast:
According to November 2004 West Virginia Bureau of Labor Occupational Employment and Wage Estimates for the Metropolitan Area of Huntington, median annual earnings of computer support specialists/programmers were $45,340 in 2004. The average salary for the entire state of West Virginia in the computer support specialists/programmer area was $48,480.

Admission Requirements:
The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

WEB DEVELOPER

MAJOR CODE – CI20 • CONCENTRATION CODE – CI21

FIRST YEAR

Fall Semester[1]				Spring Semester			
ENL	111	Written Communication	3	COM	112	Oral Communication	3
IT	101	Fundamentals of Computers (EDGE)	3	IT	221	Operating Systems II	3
IT	107	Fundamentals of Internet	3	IT	212	Publishing on the Internet[3]	3
IT	120	Operating Systems[2]	4	IT	213	Web Graphics/Design[3]	3
MAT	145	Applications in Algebra	3	IT	270	Computer Repair[2] (EDGE)	3
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**15**

SECOND YEAR

Fall Semester				Spring Semester			
ENL	231	Technical Report Writing[4,5]	3	IT	240	Internet Data Communications[3]	3
IT	115	Intro to BASIC[2]	3	IT	250	Applications to Databases[2]	3
IT	150	Applications to Spreadsheets[2] (EDGE)	3	IT	299	Information Technology Internship[8]	3
IT	242	Advanced Internet[5]	3	SS	201	Human Relations	3
IT	276	Computer Maintenance[6] (EDGE)	3			Approved Math/Science Elective	3
		Recommended Elective[7]	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**15**

HOURS REQUIRED FOR GRADUATION: 64

Employment Opportunities:

- Network administration
- Web designer
- Systems support technician
- Network designer
- Security solutions designer
- Help desk technician
- Hardware technician
- Software applications

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

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1. Students are expected to have basic knowledge of computers including operating systems such as Windows XP or 2003 and Microsoft Office XP or 2003 before entering this program. The student must register for IT101 during his or her first semester or successfully pass a challenge exam for IT 101.
2. IT 115, IT 120, IT 150, IT 250, and IT 270 have a prerequisite of IT 101.
3. IT 212, IT 213, and IT 240 have a prerequisite of IT 107.
4. ENL 231 has a prerequisite of ENL 111 or COM 111.
5. IT 242 has a prerequisite of IT 212.
6. IT 276 has a prerequisite of IT 270.
7. The following list of courses are recommended as electives: AAT 104, AAT 136, AAT 160, AAT 255, AAT 265, AC 103, AC 108, COM 231, COM 235, EC 102, LAS 101, MG 101, MG 181, MK 130, MK 210, MK 279, IT 215, IT 221, IT 230, or SS 215.
8. Permission of instructor is required in order to enroll in IT 299.

Liberal Arts & Human Services

AIR CONDITIONING/REFRIGERATION

AMERICAN SIGN LANGUAGE

AUTOMOTIVE TECHNOLOGY

BIOMEDICAL ELECTRONICS

BOARD OF GOVERNORS

EARLY CHILDHOOD EDUCATION

ELECTRONICS TECHNOLOGY

GENERAL BUILDING CONSTRUCTION

GENERAL/TRANSFER STUDIES

GRAPHIC DESIGN/COMMUNICATION

MACHINIST TECHNOLOGY

MANUFACTURING ENGINEERING

MARITIME TRAINING

PUBLIC LIBRARY TECHNOLOGY

SURGICAL TECHNOLOGY

WELDING

AIR CONDITIONING REFRIGERATION ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Technical Studies Degree, limited to high school students enrolled in the EDGE program, is designed to provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree and/or One-Year Certificate.

Marshall Community & Technical College delivers educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

Components of the program include the following: general education, classroom instruction in a technical core and in the occupational area, and possible on-the-job training.

Technical Studies students must meet admission and performance standards. Credits earned through either the approved apprenticeship programs or through industry-based education and training programs will not be added to the student's collegiate transcript until the student has completed twelve program credit hours from Marshall Community & Technical College and has obtained at least a 2.00 GPA.

Career Outlook:

Job prospects for heating, air-conditioning, and refrigeration mechanics and installers are expected to be good, particularly for those with technical school or formal apprenticeship training. Employment of heating, air-conditioning, and refrigeration mechanics and installers is expected to grow faster than the average for all occupations through the year 2012. As the population and economy grow, so does the demand for new residential, commercial, and industrial climate-control systems. Technicians who specialize in installation work may experience periods of unemployment when the level of new construction activity declines, but maintenance and repair work usually remain relatively stable. People and businesses depend on their climate-control systems and must keep them in good working order, regardless of economic conditions.

Salary Forecast:

Median hourly earnings of heating, air-conditioning, and refrigeration mechanics and installers were $18.11 in May 2006. The middle 50 percent earned between $14.12 and $23.32 an hour. The lowest 10 percent earned less than $11.38, and the top 10 percent earned more than $28.57. Median hourly earnings in the industries employing the largest numbers of heating, air-conditioning, and refrigeration mechanics and installers in 2006 were as follows:

Electrical contractors	$16.74
Hardware, and plumbing and heating equipment and supplies merchant wholesalers	$20.53
Direct selling establishments	$19.12
Plumbing, heating, and air conditioning contracts	$17.46

(Information obtained from Occupational Outlook Handbook 2008-2009)

Program Admission Requirements:

The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Vocational Site Partnership:

In addition, Marshall Community & Technical College offers an Associate in Applied Science, Technical Studies in conjunction with its Vocational Site Partnerships at Technical Centers in Cabell, Mason, Putnam and Wayne counties through EDGE.

AIR CONDITIONING REFRIGERATION

MAJOR CODE - CT20 • CONCENTRATION CODE - CT24

COMPONENT I - General Education[1]			COMPONENT II - Technical Core		
COM	112	Oral Communication. 3	ENL	115	Written Communications II[2] 3
ENL	111	Written Communication. 3	ELT	110	Basic Electronics. 3
ENL	231	Technical Report Writing[2]. 3	HMN	235	Leadership Development Studies[5]. 3
IT	101	Fundamentals of Computers (EDGE) . .3	ISM	133	Principles of Supervision & Management .3
MAT/SCI		Electives[3]. 6	MG	101	Intro to Business (EDGE). 3
SS		Social Science Elective[4]. 3	MG	202	Business Organization & Management[6] . 4
			MG	209	Occupational Safety. 3
			MK	210	Customer Service[2]. 3
TOTAL CREDITS. 21			**TOTAL CREDITS. 9-21**		

COMPONENT III - Technical/Occupational Speciatly[7]	COMPONENT IV- (optional) On-the-Job Training in the occupation (1-12 credit hours may be awarded)
Fundamentals of Air Conditioning/Refrigeration (EDGE) Basic Control Circuits (EDGE) Heating Systems (EDGE) Domestic Refrigeration (EDGE) **TOTAL COMPONENT III HOURS. 20**	A letter verifying completion of contact hours must be received by the Dean of Student Service's Office, located in the Marshall Community & Technical College Building, Room 110, prior to applying for graduation for credit to be awarded. 160 clock hours equals 1 college credit hour.

HOURS REQUIRED FOR GRADUATION: 62

Employment Opportunities:

- School maintenance
- Direct selling establishments
- Hardware/Plumbing/Heating equipment & supplies merchant/wholesalers
- Self-employment
- Local governments
- Federal government
- Hospitals

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

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1. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
2. ENL 115, ENL 231 and MK 210 have a prerequisite of ENL 111 or COM 111.
3. Six total Quantitative Skills/Laboratory Science/Experience credits are required. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select from the following: SCI 101, SCI 120 or SCI 201.
4. Select from EC 102, SS 201, SS 210, or SS 215.
5. Required capstone course.
6. MG 202 has prerequisite of MG 101.
7. Verification of completion of CTE classes with a score of 74% or better on the final exam must be forwarded to West Virginia Community and Technical College System in Charleston, by course instructor.

AMERICAN SIGN LANGUAGE
ASSOCIATE IN APPLIED SCIENCE

Program Description:

This program is designed to give students a foundation in American Sign Language (ASL) and to acquaint them with basic issues of concern to the Deaf community. Furthermore, the program offers an opportunity to individuals already working in the Deaf community to increase their understanding of ASL and Deaf culture in order to strengthen their knowledge and their communication skills. Upon completion of the Associate of Applied Science Degree in American Sign Language, the graduate will be able to:

- effectively communicate with Deaf persons in informal settings in teaching, human services, or health care;
- enhance their credentials for employment opportunities which do not require interpreter certification but do assign value to skills in ASL and knowledge of Deaf culture;
- earn the academic qualifications for entry into advanced studies at universities offering sign language programs;
- enter an interpreter training program, after which they may sit for a certification examination, sponsored by the national licensing organization.

Career Outlook:

American Sign Language skills are needed by professionals in public and private agencies and educational settings serving the deaf/hard of hearing people (e.g. teachers, counselors, consultants, therapists, specialists) by enhancing their ability to understand and communicate with the deaf and hard of hearing. (http://www.aslta.org/language/index.html) In addition, sign language interpreting is a rapidly expanding field. Schools, government agencies, and private businesses employ interpreters. Interpreters work in a variety of settings including medical, legal, religious, mental health, rehabilitation, performing arts, and business. Part-time, full-time, freelance and salaried positions are available in most metropolitan areas across the country.

Salary Forecast:

Salaried interpreters and translators had median hourly earnings of $17.10 in May 2006. The middle 50 percent earned between $12.94 and $22.60. The lowest 10 percent earned less than $9.88, and the highest 10 percent earned more than $30.91.

(Information obtained from Occupational Outlook Handbook 2008-2009)

Employment Opportunities:

- Enter an Interpreter Training Program, after which they may sit for certification examination, sponsored by the national licensing organization.
- Seek employment with an early intervention program that serves Deaf and Hard of Hearing children.
- A background in ASL and Deaf Studies will be useful in absolutely any field of employment.

Additional information:

Other individuals that can benefit from this program are parents of DHH children and young hearing children, early childhood teachers and child care providers, teachers, paraprofessionals, speech/language pathologists, counselors, interpreters, and medical professionals.

AMERICAN SIGN LANGUAGE

MAJOR CODE – CA50

FIRST YEAR

Fall Semester				Spring Semester			
ASL	101	American Sign Language	3	ASL	102	American Sign Language II[1]	3
ASL	105	American Deaf Community	3	ASL	103	ASL Fingerspelling	3
COL	101	New Student Seminary-CTC	1	ASL	110	American Deaf Culture	3
COM	112	Oral Communication	3	ENL	115	Written Communication II[2]	3
ENL	111	Written Communication	3	SS	215	Lifespan Psychology	3
IT	101	Fundamentals of Computers (EDGE)	3				
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**15**

SECOND YEAR

Fall Semester				Spring Semester			
ASL	201	American Sign Language III[3]	3	ASL	202	American Sign Language IV[5]	3
ASL	205	American Deaf Community History[4]	3	ASL	210	Deaf People in American History[6]	3
ASL	220	Resources for the Deaf Community	3	ASL	290	App. Issues Concerning Deaf Comm.*[,7]	3
MAT	150	Applied Professional Community	3	SS	210	Intro to Sociology	3
SS	201	Human Relations	3			Mathematics/Science Elective[8]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**15**

HOURS REQUIRED FOR GRADUATION: 61

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Leigh-Ann Brewer • Hodges Hall 108
Phone: (304) 696-3752 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brewer13@mctc.edu

1. ASL 102 has a prerequisite of ASL 101.
2. ENL 115 has a prerequisite of COM 111, ENL 111, or ENG 101.
3. ASL 201 has prerequisites of ASL 101 and ASL 102.
4. ASL 205 has a prerequisite of ASL 105
5. ASL 202 has prerequisites of ASL 101, ASL 102, and ASL 201.
6. ASL 210 has prerequisites of ASL 105, ASL 110, and ASL 205.
7. ASL 290 has prerequisites of ASL 101, ASL 102, ASL 105, ASL 110, ASL 115, ASL 201, and ASL 220.
8. Students may complete the three credit requirement with a second college level mathematics course or select from the following: SCI 101, SCI 120 or SCI 201.

* Asterisk indicated Capstone course

AUTOMOTIVE TECHNOLOGIES
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Technical Studies Degree, limited to high school students enrolled in the EDGE program, is designed to provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree and/or One-Year Certificate.

Marshall Community & Technical College delivers educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

Components of the program include the following: general education, classroom instruction in a technical core and in the occupational area, and possible on-the-job training.

Technical Studies students must meet admission and performance standards. Credits earned through either the approved apprenticeship programs or through industry-based education and training programs will not be added to the student's collegiate transcript until the student has completed twelve program credit hours from Marshall Community & Technical College and has obtained at least a 2.00 GPA.

Career Outlook:

Job opportunities in this occupation are expected to be very good for persons who complete automotive training programs in high school, vocational and technical schools, or community colleges. Persons with good diagnostic and problem-solving skills, and whose training includes basic electronics skills, should have the best opportunities. For well-prepared people with a technical background, automotive service technician careers offer an excellent opportunity for good pay and the satisfaction of highly skilled work with vehicles incorporating the latest in high technology. However, persons without formal automotive training are likely to face competition for entry-level jobs.

Employment of automotive service technicians and mechanics is expected to increase as fast as the average through the year 2014. Through 2014, demand for technicians will grow as the number of vehicles in operation increases, reflecting continued growth in the number of multi-car families. Growth in demand will be offset somewhat by slowing population growth and the continuing increase in the quality and durability of automobiles, which will require less frequent service. Additional job openings will be due to the need to replace a growing number of retiring technicians, who tend to be the most experienced workers.

Salary Forecast:

Median hourly earnings of automotive service technicians and mechanics, including commission, were $16.24 in May 2006. The middle 50 percent earned between $11.96 and $21.56. The lowest 10 percent earned less than $9.17, and the highest 10 percent earned more than $27.22. Median hourly earnings in the industries employing the largest numbers of service technicians in 2004 were as follows:

Local government, excluding schools	$19.07
Automobile dealers	$18.85
Gasoline stations	$14.51
Automotive repair and maintenance	$14.55
Automotive parts, accessories, and tire stores	$14.38

(Information obtained from Occupational Outlook Handbook 2008-2009)

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Vocational Site Partnership:

In addition, Marshall Community & Technical College offers an Associate in Applied Science in Technical Studies in conjunction with its Vocational Site Partnerships at Technical Centers in Cabell, Mason, Putnam and Wayne counties, through EDGE.

AUTOMOTIVE TECHNOLOGIES

MAJOR CODE - CT20 • CONCENTRATION CODE - CT25

COMPONENT I - General Education[1]			COMPONENT II - Technical Core		
COM	112	Oral Communication. 3	ENL	115	Written Communications II[2] 3
ENL	111	Written Communication. 3	EC	102	Basic Economics. 3
ENL	231	Technical Report Writing[2]. 3	ELT	110	Basic Electronics. 3
IT	101	Fundamentals of Computers (EDGE) . .3	HMN	235	Leadership Development Studies[5]. 3
MAT/SCI		Electives[3]. 6	MG	101	Intro to Business (EDGE). 3
SS		Social Science Elective[4]. 3	MG	202	Business Organization & Management[6] . 4
			MG	209	Occupational Safety. 3
			MK	210	Customer Service[2]. 3
TOTAL CREDITS. 21			**TOTAL CREDITS. 9-21**		

COMPONENT III - Technical/Occupational Speciatly[7]	COMPONENT IV- (optional)
Fundamentals of Automotive Technology (EDGE) Suspension and Steering Diagnosis (EDGE) Brakes (EDGE) Basic Engine Concepts (EDGE) **TOTAL COMPONENT III HOURS. 20**	**On-the-Job Training in the Occupation** **(1-12 credit hours may be awarded)** A letter verifying completion of contact hours must be received by the Dean of Student Service's Office, located in the Marshall Community & Technical College Building, Room 110, prior to applying for graduation for credit to be awarded. 160 clock hours equals 1 college credit hour.

HOURS REQUIRED FOR GRADUATION: 62

Employment Opportunities:

- Automotive technician
- Repair shop owner

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Sumeeta Patnaik • MCTC, Room 115
Phone: (304) 696-3025 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: patnaik1@mctc.edu

1. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residence.
2. ENL 115, ENL 231 and MK 210 have a prerequisite of ENL 111 or COM 111.
3. Six total Quantitative Skills/Laboratory Science Experience credits are required for Technical Studies Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select a laboratory science course from the following: SCI 110, SCI 120, or SCI 201.
4. Select from EC 102, SS 201, SS 210, or SS 215.
5. Required capstone course.
6. MG 202 has a prerequisite of MG 101.
7. Verification of completion of CTE classes with a score of 74% or better on the final exam must be forwarded to West Virginia Community and Technical College System in Charleston, by course instructor.

BIOMEDICAL ELECTRONICS
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Electronics Technology program is offered in cooperation with the Cabell County Career Technology Center (CCCTC). The CCCTC is responsible for providing the electronics courses and electronics laboratories. Marshall Community & Technical College provides support courses that enhance a student's analytical, communication, computer, customer service, and interpersonal skills.

Upon completion of the Associate of Applied Science Degree in Electronics Technology, the graduate will be able to:

- Exhibit knowledge of electronic terminology;
- Demonstrate a working knowledge of the proper techniques for maintaining, troubleshooting, and repairing electronic devices through proper use of schematic diagrams and common test equipment
- Apply quantitative principles to analyze and solve problems
- Make decisions after gathering and analyzing information
- Prepare and present written and oral communication
- Demonstrate teamwork and customer service skills

Career Outlook:

Electronics Technician is one of today's fastest growing careers, a career that can provide not only a great salary and job security but also exciting work in a field that is always growing and changing. This field has many opportunities including maintenance, design, service and sales in commercial, manufacturing and process industries.

The following industries employ electronic technicians: computer industry, consumer electronics industry, robotics industry, utility companies, health care, broadcast, manufacturing, aerospace, automotive, mining, office equipment, waste-treatment, and any other industries that use electrical/electronic systems.

Salary Forecast:

- Low Range $21,710 to $27,680
- Mid Range $27,680 to $45,750
- High Range $45,750 to $62,540

(Information obtained from Occupational Outlook Handbook 2006-2007)

Tech Prep Affiliation:

The Electronics Technology program is aligned with the West Virginia Tech Prep Engineering/Technical cluster. This career track provides the opportunity for West Virginia students to acquire college credit while attending high school.

BIOMEDICAL ELECTRONICS

MAJOR CODE - CE10 • CONCENTRATION CODE - CE13

FIRST YEAR

First Semester				Second Semester			
ENL	111	Written Communication	3	COM	112	Oral Communication	3
ELT	111	Direct Current Circuit Analysis[1]	4	ELT	121	Alternating Current Circuit Analysis[1,3]	4
ELT	111L	Direct Current Electronics Lab	2	ELT	121L	Alternating Current Electronics Lab	2
IT	101	Fundamentals of Computers (EDGE)	3	MAT	215	Applied Discrete Mathematics[4]	3
MAT	145	Applications in Algebra	3	SCI	110	Intro to Physics[4]	4
SS		Social Science Elective[2]	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**16**

SECOND YEAR

Third Semester				Fourth Semester			
IT	131	Intro to Networking[5]	4	AH	151	Medical Terminology (EDGE)	3
ELT	131	Analog Circuits[1,6]	5	ELT	222	Intro to Microprocessor[8]	4
ELT	131L	Analog Circuits Lab	1	ELT	223	Biomedical Instrumentation[9]	3
ELT	211	Combinational Logic Circuits[1,7]	5	ELT	299	Electronic Technology Internship	3
ELT	211L	Combinational Logic Circuits Lab	2	BIOL	257	Intro to Anatomy & Physiology (EDGE)	3
IT	270	Computer Repair[5] (EDGE)	3				
		TOTAL CREDITS	**20**			**TOTAL CREDITS**	**16**

HOURS REQUIRED FOR GRADUATION: 70

Employment Opportunities:

- Bench technician
- Design technician
- Process control technician
- Bio-medical technician
- Maintenance technician
- Electronics trainers
- Electronics sales
- Installation technician

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Carol Perry • MCTC, Room 129
Phone: (304) 696-3018 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: perry@mctc.edu

1. ELT 111, ELT 121, ELT 131 and ELT 211 must be taken concurrently with their respective labs: ELT 111L, ELT 121L, ELT 131L and ELT 211L.
2. Social Science requirement: Select from EC 102, SS 201, SS 210, or SS 215.
3. ELT 121 has a prerequisite of ELT 111.
4. MAT 215 and SCI 110 have a prerequisite of MAT 145.
5. IT 131 and IT 270 have a prerequisite of IT 101
6. ELT 131 has a prerequisite of ELT 121.
7. ELT 211 has a prerequisite of ELT 131 and MAT 215.
8. ELT 222 has a prerequisite of ELT 211.
9. ELT 223 has a prerequisite of ELT 211 and ELT 211L.

BOARD OF GOVERNORS
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Board of Governors Associate in Applied Science Degree is designed to assist adult learners to meet occupational goals, employment requirements, establish professional credentials, or achieve personal goals. This degree provides Marshall Community & Technical College a mechanism to deliver educational programs to nontraditional students desiring to complete their post-secondary education.

This program is available to nontraditional students who have graduated from high school two or more years prior to enrollment. For those students who earned their GED certificate, program application must be at least two years from the date their class would have graduated from high school.

This degree requires participants to complete a minimum of 12 credit hours from a regionally accredited institution of higher education of which three (3) credits hours must be earned at Marshall Community & Technical College with a letter grade of "C" or higher.

Those students desiring to develop specific job skills may opt to earn their degree in an 'Area of Emphasis.' To be eligible for an 'Area of Emphasis' students must complete 15 credit hours of work in an approved occupational concentration. For more information on available 'Area of Emphasis' for this degree, contact the program coordinator at (304) 696-3366.

Students must meet all admission and performance standards. Credits earned through portfolios, military credits, challenge exams, special assessment of licensure/certifications, formal training programs; and CLEP and DANTES exams will be placed on the transcript the semester that the credits are evaluated and awarded. Students must have a GPA of 2.0 or above to graduate.

The student who graduates with the Board of Governors Associate in Applied Science will possess:

- Ability to work corroboratively in groups;
- Computer software skills;
- Communication skills;
- Critical thinking skills;
- Job skills in an optional area of emphasis.

The Board of Governors Associate in Applied Science will seamlessly articulate with the West Virginia Board of Regents Bachelor of Arts Degree and the Bachelor of Applied Science Degree.

BOARD OF GOVERNORS

MAJOR CODE – CG30

COMPONENT I - General Education[1,2]	COMPONENT II - General Electives
English/Communication[3]. . . . . 6 Mathematics/Sciences[4]. . . . . 6 Computer Literacy[5] (EDGE). . . . . 3 Social Science/Humanitites[4]. . . . . 6 **TOTAL CREDITS. 21**	This component consists of credit hours from the following options: Area of Emphasis[6]; portfolio course (TS 101) credits[7], CLEP and DANTES exams, Military Credits, challenge exams, special assessment of licensure/certifications/formal training programs and capstone course[8]. **TOTAL CREDITS. 39**
HOURS REQUIRED FOR GRADUATION: 60	

Employment Opportunities:

- Enhanced skills for work environment
- Transferable to RBA degree

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Cabell Hall, Room 110
Phone: (304) 696-3366 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brown175@mctc.edu

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1. This program is available to students who have graduated from high school two or more years prior to enrollment. For those students who earned their GED certificate, it must be two years from the date their class would have graduated from high school.
2. To fulfill residency requirements, a minimum of 12 credit hours must be completed from a regionally accredited higher educational institution. Further, 3 of these 12 credit hours must be completed with Marshall Community & Technical College.
3. ENL 111 or COM 111 and COM 112 may be used to fulfill the Communication's requirements.
4. Students must complete a total of six (6) credit hours in one or a combination of both subject areas.
5. IT 101 may be used to fulfill the Computer Literacy requirements.
6. A minimum of 15 credit hours are required for an Area of Emphasis.
7. Student desiring to submit a portfolio for credit evaluation must enroll in a portfolio development course (TS 101) that will count as one of the General Electives credits.
8. Students seeking college credit for "Adult Equivalent Learning," should contact Steven Brown, program coordinator at (304) 696-3366, for more information on nontraditional education opportunities and options.

EARLY CHILDHOOD EDUCATION
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Associate in Applied Science in Early Childhood Education degree consists of 62 credit hours and is approximately one half of the curriculum required for a Bachelor of Arts in Education. The degree is designed to allow the holder to serve in a support capacity including, but not limited to, facilitating instruction and direct or indirect supervision of pupils under the direction of an educator. This program is designed to allow a seamless transfer to the baccalaureate degree at Marshall University.

Career Description:

Childcare workers nurture and care for children who have not yet entered formal schooling and also work with older children in before- and after-school situations. These workers play an important role in a child's development by caring for the child when parents are at work or away for other reasons. In addition to attending to children's basic needs, childcare workers organize activities that stimulate children's physical, emotional, intellectual, and social growth. They help children explore individual interests, develop talents and independence, build self-esteem, and learn how to get along with others.

As childcare workers gain experience, some may advance to supervisory or administrative positions in large childcare centers or preschools. Often, these positions require additional training, such as a bachelor's or master's degree. Other workers move on to work in resource and referral agencies, consulting with parents on available child services. A few workers become involved in policy or advocacy work related to childcare and early childhood education. With a bachelor's degree, workers may become preschool teachers or become certified to teach in public or private schools. Some workers set up their own childcare businesses.

Career Outlook:

High replacement needs should create good job opportunities for childcare workers. Qualified persons who are interested in this work should have little trouble finding and keeping a job. Employment of childcare workers is projected to increase about as fast as the average for all occupations through the year 2014. The number of women in the labor force of childbearing age and the number of children less than 5 years of age are both expected to rise over the next 10 years. There is also an increasing emphasis on early childhood education programs. There is likely to be a rise in enrollment in private preschools as the value of formal education before kindergarten becomes more widely accepted.

Salary Forecast:

Pay depends on the educational attainment of the worker and the type of establishment. Although the pay generally is very low, more education usually means higher earnings. Median hourly earnings of wage and salary childcare workers were $8.06 in May 2004. The middle 50 percent earned between $6.75 and $10.01. The lowest 10 percent earned less than $5.90, and the highest 10 percent earned more than $12.34. Median hourly earnings in the industries employing the largest numbers of childcare workers in 2004 were as follows:

Other residential care facilities	$9.66
Other amusement and recreation industries	$7.58
Elementary and secondary schools	$9.22
Child day care services	$7.34
Civic and social organizations	$7.62

Earnings of self-employed childcare workers vary depending on the hours worked, the number and ages of the children, and the location.

Benefits vary, but are minimal for most childcare workers. Many employers offer free or discounted child care to employees. Some offer a full benefits package, including health insurance and paid vacations, but others offer no benefits at all. Some employers offer seminars and workshops to help workers learn new skills. A few are willing to cover the cost of courses taken at community colleges or technical schools. Live-in nannies receive free room and board.

EARLY CHILDHOOD EDUCATION

MAJOR CODE – CE30

FIRST YEAR[1,2,12]

Fall Semester				Spring Semester			
ENL	111	Written Communication	3	ENL	115	Written Communications II[2]	3
IT	101	Fundamentals of Computers (EDGE)	3	EDUC	120	Foundations of Early Childhood[3*]	3
COL	101	New Student Seminar	3	EDUC	105	Comp Instruction Technology in Classroom[4]	3
COM	112	Oral Communication	3	SS	215	Lifespan Psychology[6]	3
EDUC	101	Healthy Environments[*]	3	SS	115	World History since 1500	3
				EME	105	First on Scene[*]	3
		TOTAL CREDITS	**15**			**TOTAL CREDITS**	**18**

SECOND YEAR

Fall Semester				Spring Semester			
		English Literature[5]	3	HMN	235	Leadership Studies[2]	3
EDUC	204	Parenting[7]	3	EDUC	261	The Exceptional Child[11]	3
EDUC	225	Development of Young Children[8*]	3	EDUC	299	Capstone[12]	3
EDUC	270	Level 1 Clinical Experience[9]	0	SCI	201	Integrated Science[13]	4
MAT	150	Applied Professional Mathematics	3	SS	210	Fundamentals of Sociology	3
		Lab Science[10]	4				
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**16**

HOURS REQUIRED FOR GRADUATION: 63

Employment Opportunities:

- Childcare workers
- Child day care services
- Preschool employment

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Sarah Dick • MCTC, Room 127
Phone: (304) 696-3180 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: crouse@mctc.edu

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1. Students wishing to continue onto the bachelor program in Early Childhood Education please note the Teacher Education admission requirements on the College of Education and Human Services Website http://www.marshall.edu/coehs/academics/certification/levelrequirements/default.asp
2. ENL 115 and HMN 235 have a prerequisite of ENL 111.
3. EDUC 120 has a pre-requisite of ENL 094 and/or 095.
4. EDUC 105 has a prerequisite of IT 101.
5. Students must see an MCTC advisor for an approved list of literature courses. All literature courses have a prerequisite of ENL 115.
6. SS 215 has a co-requisite of EDUC 270 for ACDS students.
7. EDUC 204 has a prerequisite of EDUC 120 and ENL 111.
8. EDUC 225 has a co-requisite of EDUC 270 and a prerequisite of EDUC 120 and ENL 111.
9. EDUC 270 has a co-requisite of EDUC 225 or SS 215 for ACDS students.
10. Either SCI 110 or BIOL 260 or 265 may be taken.
11. EDUC 261 has a prerequisite of EDUC 225.
12. EDUC 299 by permission
13. SCI 201 has a prerequisite of MAT 145 or MAT 150.

* *Only students who began Apprenticeship Child Development Specialist classes Fall 2002 or after will receive credit for these courses upon completion of their certificate.*

ELECTRONICS TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Electronics Technology program is offered in cooperation with the Cabell County Career Technology Center (CCCTC). The CCCTC is responsible for providing the electronics courses and electronics laboratories. Marshall Community & Technical College provides support courses that enhance a student's analytical, communication, computer, customer service, and interpersonal skills.

Upon completion of the Associate of Applied Science Degree in Electronics Technology, the graduate will be able to:

- Exhibit knowledge of electronic terminology;
- Demonstrate a working knowledge of the proper techniques for maintaining, troubleshooting, and repairing electronic devices through proper use of schematic diagrams and common test equipment
- Apply quantitative principles to analyze and solve problems
- Make decisions after gathering and analyzing information
- Prepare and present written and oral communication
- Demonstrate teamwork and customer service skills

Career Outlook:

Electronics Technician is one of today's fastest growing careers, a career that can provide not only a great salary and job security but also exciting work in a field that is always growing and changing. This field has many opportunities including maintenance, design, service and sales in commercial, manufacturing and process industries.

The following industries employ electronic technicians: computer industry, consumer electronics industry, robotics industry, utility companies, health care, broadcast, manufacturing, aerospace, automotive, mining, office equipment, waste-treatment, and any other industries that use electrical/electronic systems.

Salary Forecast:

Low Range	$21,710 to $27,680
Mid Range	$27,680 to $45,750
High Range	$45,750 to $62,540

Tech Prep Affiliation:

The Electronics Technology program is aligned with the West Virginia Tech Prep Engineering/Technical cluster. This career track provides the opportunity for West Virginia students to acquire college credit while attending high school.

ELECTRONICS TECHNOLOGY

MAJOR CODE – CE10

FIRST YEAR

First Semester				Second Semester			
ENL	111	Written Communication	3	COM	112	Oral Communication	3
ELT	111	Direct Current Circuit Analysis[1]	4	ELT	121	Alternating Current Circuit Analysis[1,3]	4
ELT	111L	Direct Current Electronics Lab	2	ELT	121L	Alternating Current Electronics Lab	2
IT	101	Fundamentals of Computers (EDGE)	3	MAT	215	Applied Discrete Mathematics[4]	3
MAT	145	Applications in Algebra	3	SCI	110	Intro to Physics[4]	4
SS		Social Science Elective[2]	3				
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**16**

SECOND YEAR

Third Semester				Fourth Semester			
ELT	131	Analog Circuits[1,6]	5	ELT	222	Intro to Microprocessor[8]	4
ELT	131L	Analog Circuits Lab	1	ELT	299	Electronic Technology Internship	3
ELT	211	Combinational Logic Circuits[1,7]	5	IT	131	Intro to Networking[5]	4
ELT	211L	Combinational Logic Circuits Lab	2	IT	276	Computer Maintenance[9] (EDGE)	3
IT	270	Computer Repair[5] (EDGE)	3				
		TOTAL CREDITS	**16**			**TOTAL CREDITS**	**14**

HOURS REQUIRED FOR GRADUATION: 65

Employment Opportunities:

- Bench technician
- Design technician
- Process control technician
- Bio-medical technician
- Maintenance technician
- Electronics trainers
- Electronics sales
- Installation technician

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Carol Perry • MCTC, Room 129
Phone: (304) 696-3018 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: perry@mctc.edu

1. ELT 111, ELT 121, ELT 131 and ELT 211 must be taken concurrently with their respective labs: ELT 111L, ELT 121L, ELT 131L and ELT 211L.
2. Select from EC 102, SS 201, SS 210, or SS 215.
3. ELT 121 has a prerequisite of ELT 111.
4. MAT 215 and SCI 110 have a prerequisite of MAT 145.
5. IT 131 and IT 270 have a prerequisite of IT 101.
6. ELT 131 has a prerequisite of ELT 121.
7. ELT 211 has a prerequisite of ELT 131 and MAT 215.
8. ELT 222 has a prerequisite of ELT 211.
9. IT 276 has a prerequisite of IT 270.

GENERAL BUILDING CONSTRUCTION
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Technical Studies Degree, limited to high school students enrolled in the EDGE program, is designed to provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree and/or one-year Certificate. Marshall Community & Technical College delivers educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

Components of the program include the following: general education, classroom instruction in a technical core and in the occupational area, and possible on-the-job training.

Technical Studies students must meet admission and performance standards. Credits earned through either the approved apprenticeship programs or through industry-based education and training programs will not be added to the student's collegiate transcript until the student has completed twelve program credit hours from Marshall Community & Technical College and has obtained at least a 2.00 GPA.

Career Outlook:

Job opportunities are expected to be excellent in the construction industry, especially for workers with training and experience in construction occupations, due largely to the numerous openings arising each year as experienced construction workers leave their jobs. Further, many potential workers may prefer work that is less strenuous and has more comfortable working conditions. The continued shortage of adequate training programs also will contribute to the favorable job market.

Salary Forecast:

Earnings in construction are significantly higher than the average for all industries. Production or non-supervisory workers in construction average $18.51 an hour, or about $712 a week. Average earnings of workers in the specialty trade contractors segment were somewhat higher than those of workers employed by building or heavy and civil engineering construction contractors.

Earnings of workers in the construction industry vary by the education and experience of the worker, type of work, the size and nature of the construction project, geographic location, and economic conditions. Earnings of construction trade workers are often affected by poor weather. Heavy rain may slow or even stop work on a construction project. Traditionally, winter is the slack period for construction activity, especially in colder parts of the country, but there is a trend toward more year-round construction even in colder areas. Because construction trades are dependent on one another—especially on large projects—work delays in one trade delay or stop work in another.

Nineteen percent of construction trades workers are union members or covered by union contracts, compared with about 15 percent of workers throughout private industry. Many different unions represent the various construction trades and form joint apprenticeship committees with local employers to supervise apprenticeship programs.

(Information obtained from the Occupational Outlook Handbook 2008-2009)

Program Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Vocational Site Partnerships:

In addition, Marshall Community & Technical College offers a One-Year Certificate Program and an Associate of Applied Science in Technical Studies in conjunction with its Vocational Site Partnerships in Cabell, Mason, Putnam and Wayne counties through EDGE.

GENERAL BUILDING CONSTRUCTION

MAJOR CODE - CT20 • CONCENTRATION CODE - CT26

COMPONENT I - General Education[1]	COMPONENT II - Technical Core
COM 112 Oral Communication. 3	HMN 235 Leadership Studies[5] 3
ENL 111 Written Communication. 3	EC 102 Basic Economics. 3
ENL 231 Technical Report Writing[2]. 3	ELT 111 Direct Current Circuit Analysis. 3
IT 101 Fundamentals of Computers (EDGE). . .3	ELT 111L DIrect Current Electronics Lab 3
MAT/SCI Electives[3]. 6	ISM 133 Principles of Supervision & Management. .3
SS Social Science Elective[4]. 3	MG 101 Intro to Business (EDGE) 3
TOTAL CREDITS. 21	MG 202 Business Organization and Management[6].3
	MK 210 Customer Service[2]. 6
	SS 201 Human Relations. 3
	TOTAL CREDITS. 9-21
COMPONENT III - Technical/Occupational Specialty[7]	**COMPONENT IV- (Optional) On-the-Job Training in the Occupation (1-12 credit hours may be awarded)**
Fundamentals of building Construction (EDGE)	A letter verifying of contact hours must be received by the Dean of Student Service's Office, located in the Marshall Community & Technical College Building, Room 110 prior to graduation for credit to be awarded. 160 clock hours equals 1 college credit hour.
Masonry and Plumbing (EDGE)	
Foundation and Framing (EDGE)	
Finishing and Carpentry (EDGE)	
TOTAL COMPONENT III HOURS. 20	

HOURS REQUIRED FOR GRADUATION: 62

Employment Opportunities:

General building construction

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Sumeeta Patnaik • MCTC, Room 115

Phone: (304) 696-3024 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: patnaik1@mctc.edu

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1. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
2. ENL 231 and MK 210 have a prerequisite of ENL 111 or COM 111.
3. Six total Quantitative Skills/Laboratory Science/Experience credits are required. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select from the following: SCI 101, SCI 120 or SCI 201.
4. Select from SS 201, SS 210, 215 or EC 102.
5. Required Capstone Course.
6. MG 202 has a prerequisite of MG 101
7. Verification of completion of CTE classes with a score of 74% or better on the final exam must be forwarded to West Virginia Community and Technical College System in Charleston, by course instructor.

GENERAL/TRANSFER STUDIES
ASSOCIATE IN APPLIED SCIENCE

Program Description:
A degree in General/Transfer Studies can establish the foundation for a lifetime of continual learning and serve as the framework for a productive professional and personal life. This degree is for the student who:

- Is planning to earn a baccalaureate degree at a four-year institution
- Has educational needs not covered by more specific technical programs
- Finds access to the main campus for instruction physically challenging
- Is not ready to declare a major

The degree requires 63 credit hours of General Education core courses: 45 of the credit hours provide the student with a broad background in written and oral communication, humanities, social science, sciences/mathematics, and computer competency; 18 credit hours of 100-level or higher courses are required to complete the degree. The A. A. degree utilizes both on-site as well as distance education.

Career Outlook:
Many businesses and industries seek well-rounded employees whose maturity level and communication and decision-making skills are a step above those of traditional high school graduates. The Associate in Arts Degree in Transfer Studies provides graduates with enhanced work skills without requiring the larger commitment of time or money necessary for a bachelor's degree. This degree is ideal for currently employed high school graduates who need a college degree to advance in their positions.

Program Admission Requirements:
The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Available On-line:
A unique feature of the Associate in Arts in Transfer Studies is that the degree may be obtained completely on-line. Through Marshall Community & Technical College courses, MUOnline courses, and Kentucky Community and Technical College System courses offered through the Kentucky Virtual University, the student is not required to come to campus. The courses allow a flexible schedule to fit the students busy lifestyles and personal time demands. It also allows the opportunity to obtain a degree for those students who, because of transportation problems or other obligations, might be unable to do so.

GENERAL/TRANSFER STUDIES

MAJOR CODE – CG10

COMPONENT I - General Education[1,10]	GENERAL EDUCATION ELECTIVES[4]
ENL 111 Written Communication. 3	Social Science Electives[5]. 9
COM 112 Oral Communication. 3	Humanities Electives[6]. 6
ENL 115 Written Communication II[2]. 3	Math Restricted Elective[7]. 3
IT 101 Fundamentals of Computers (EDGE). . . 3	Natural Science Electives[8]. 4-8
SS 210 Fundamentals of Sociology[3]. . . . 3	General Education Electives. 2-5
SS 215 Lifespan Psychology. 3	**TOTAL CREDITS. 23-31**
TOTAL CREDITS. 18	**COMPONENT II - Electives** Student should select 18 hours from any course 100-level or higher[9]
HOURS REQUIRED FOR GRADUATION: 63	

Employment Opportunities:

- Transfer to 4-year program

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Betty Dennison • MCTC, Room 133
Phone: (304) 696-2665 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: dennisob@mctc.edu

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1. This degree can be completed totally on-line or in a classroom setting. Students seeking to complete an on-line degree should contact the MCTC Advising Center for assistance in planning their schedules.
2. ENL 115 has a prerequisite of ENL 111 or COM 111.
3. SS 210 is designated multicultural and fulfills the Marshall Plan requirement.
4. Students should use courses for these electives to fulfill Marshall Plan requirements if preparing to transfer to Marshall University B.A. programs.
5. Social Science Elective: Select from MCTC/KYV on-line 100/200-level social science courses or Marshall University (MU) on-campus or on-line 100/200 level social science courses. See Transfer Studies On-Line Advising Guide for approved courses.
6. Humanities Elective: Select from ENL 240, MCTC/KYV on-line arts, classics, foreign language, music, philosophy, or theater courses or MU on-campus or on-line courses. See Transfer Studies On-Line Advising Guide for approved courses.
7. Math Restricted Elective: Select from MAT 145, MAT 146, MAT 150, or MAT 210. See Transfer Studies On-Line advising guide for approved math elective.
8. Natural Science Electives: Select from SCI 201 or a MCTC/KYV lab science on-line course. See Transfer Studies On-Line Advising Guide for approved courses.
9. Students are advised to consult the college catalog of the institution to which they plan to transfer to determine appropriate elective courses for their intended major. Students should also consult their academic advisor regarding required prerequisites for coursework.
10. Students should review the list of MCTC/MU courses currently available through on-line delivery. Contact MCTC Advising Center for information.

GRAPHIC DESIGN/GRAPHIC COMMUNICATION ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Technical Studies Degree, limited to high school students enrolled in the EDGE program, is designed to provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree and/or One-Year Certificate.

Marshall Community & Technical College delivers educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

Components of the program include the following: general education, classroom instruction in a technical core and in the occupational area, and possible on-the-job training.

Technical Studies students must meet all normal admission and performance standards. Credits earned through either the approved apprenticeship programs or through industry-based education and training programs will not be added to the student's collegiate transcript until the student has completed twelve program credit hours from Marshall Community & Technical College and has obtained at least a 2.00 GPA.

The student who graduates with the Associate in Applied Science Degree in Technical Studies will possess:

- Supervisory skills
- Computer software skills
- Relevant essential math skills
- Written and oral communication skills

Vocational Site Partnerships:

In addition, Marshall Community & Technical College (MCTC) offers a One-Year Certificate Program and an Associate of Applied Science in Technical Studies in conjunction with its Vocational Site Partnerships at Technical Centers in Cabell, Mason, Putnam and Wayne counties through EDGE.

GRAPHIC DESIGN/GRAPHIC COMMUNICATION

MAJOR CODE - CT20 • CONCENTRATION CODE - CT27

COMPONENT I - General Education[1]

COM	112	Oral Communication	3
ENL	111	Written Communication	3
ENL	231	Technical Report Writing[2]	3
IT	101	Fundamentals of Computers (EDGE)	3
MAT/SCI		Electives[3]	6
SS		Social Science Elective[4]	3
TOTAL CREDITS			**21**

COMPONENT II - Technical Core

AAT	255	Desktop Publishing[5]	3
ENL	115	Written Communications II[2]	3
HMN	235	Leadership Development Studies[6]	3
ID	110	Perspective Drawing Techniques	3
ID	120	Advanced Perspective Drawing[7]	3
IT	107	Fundamentals of the Internet	3
IT	212	Publishing on the Internet[8]	3
IT	240	Internet Data Communications[8]	6
MG	101	Intro to Business (EDGE)	3
MG	209	Occupational Safety	3
TOTAL CREDITS			**9-21**

COMPONENT III - Technical/Occupational Specialty[9]

Common Core Course:
Fundamentals of Graphic Design and Procedures (EDGE)

Graphic Design Focus:
Basic Illustration[1] (EDGE)
Illustration[1] (EDGE)
Graphic Design[1] (Edge)

Graphic Communication Focus:
Basic Darkroom Procedures (EDGE)
Image Assembly and Plate Making (EDGE)
Offset Press and Bindery Operations (EDGE)

TOTAL COMPONENT III HOURS. 20

COMPONENT IV- (Optional) On-the-Job Training in the Occupation (1-12 credit hours may be awarded)

A letter verifying contact hours must be received by the Dean of Student Service's Office, located in the Marshall Community & Technical College Building, Room 110 prior to graduation for credit to be awarded. 160 clock hours equals 1 college credit hour.

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Print shops
- Advertising agency
- Newspaper

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Sumeeta Patnaik • MCTC, Room 115
Phone: (304) 696-3024 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: patnaik1@mctc.edu

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1. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
2. ENL 115 and ENL 231 have a prerequisite of ENL 111 or COM 111.
3. Six total Quantitative Skills/Laboratory Science Experience credits are required for Technical Studies Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirements with a second college-level mathematics course or select a laboratory science course from the following: SCI 110, SCI 120, or SCI 201.
4. Select from EC 102, SS 201, SS 210, or SS 215
5. AAT 255 has prerequisite of IT 101.
6. Required capstone course.
7. ID 120 has a prerequisite of ID 110.
8. IT 212 and IT 240 have prerequisite of IT 107.
9. Verification of completion of CTE classes with a score of 74% or better on the final exam must be forwarded to West Virginia Community and Technical College System in Charleston, by course instructor.

MACHINIST TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Machinist Technology Program at the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) is an industry-driven, hands-on program that prepares individuals to meet the rigorous demands of the manufacturing sector. An element of the RCBI program enables students to earn an Associate in Applied Science degree in Technical Studies by completing additional course work through Marshall Community & Technical College.

Adhering to standards set by the National Institute for Metalworking Skills (NIMS), the RCBI program provides individuals the technical skills they need to enter a shop floor setting and begin work immediately upon graduation. Placement opportunities are excellent according to the Bureau of Labor Statistics which reports that 30,000 jobs go unfilled each year.

Participants in the Machinist Technology program receive technical skills training to work in industrial machining. Course work includes manual machine operation and technical support, introductory CNC (computer-numerical-control) machine operation and technical support, industrial communications and organizational skills, mathematics for machinists, and safety issues.
Working closely with an 11-member industry-based advisory board, RCBI designed the program's core technical components so they meet the manufacturing sector's needs.

Comprehensive full- and part-time programs are available, thus enabling current workforce members to improve their technical skills and develop professionally while helping their employers become more competitive.

Career Outlook:

Despite projected slower-than-average employment growth, job opportunities for machinists should continue to be excellent. The number of workers obtaining the skills and knowledge necessary to fill machinist jobs is expected to be less than the number of job openings arising each year from employment growth and from the need to replace experienced machinists who transfer to other occupations or retire.

Salary Forecast:

Median hourly earnings of machinists were $16.33 in 2004. The middle 50 percent earned between $12.84 and $20.33. The lowest 10 percent earned less than $10.08, while the top 10 percent earned more than $24.34. Median hourly earnings in the manufacturing industries employing the largest number of machinists in 2004 were:

Metalworking machinery manufacturing	$17.06
Machine shops; turned product; and screw, nut, and bolt manufacturing	$15.87
Motor vehicle parts manufacturing	$17.46
Employment services	$11.09

Program Admission Requirements:

The Machinist Technology Program has admission and candidacy requirements in addition to the Marshall Community & Technical College admission guidelines.

Tech Prep Affiliation:

The Machinist Technology Program is aligned with the West Virginia Tech Prep Engineering/Technical Cluster.

MACHINIST TECHNOLOGY

MAJOR CODE - CT20 • CONCENTRATION CODE - CT21

FIRST YEAR					
First Semester				**Second Semester**			
IT	101	Fundamentals of Computers (EDGE)	3	COM	112	Oral Communication	3
MAT	135	Mathematics for Machinist Technology[1]	6	ENL	231	Technical Report Writing[2]	3
MT	105	Industrial Safety (EDGE)	2	MT	215	Metal Working Theory and Applications[1]	12
MT	121	Intro to Machinery[1] (EDGE)	4				
MT	200	Blueprint Reading (EDGE)	3				
MT	205	Precision Management (EDGE)	3				
		TOTAL CREDITS	**21**			**TOTAL CREDITS**	**18**
SECOND YEAR							
Third Semester				**Fourth Semester**			
MFE	220	Computer Aided Design I	4	MT	289	Internship for Machinist[1]	6
MT	223	Advanced Technical Specialization[3]	6			Social Science Elective[6]	3
MT	233	NIMS Credentialing[1,4]	6				
ISM	133	Principles of Supervision & Management[5]	3				
		TOTAL CREDITS	**19**			**TOTAL CREDITS**	**9**
HOURS REQUIRED FOR GRADUATION: 67							

Employment Opportunities:

Entry-level positions for which graduates will compete include:

- Manual machinist
- CNC machinist
- Industrial sales representative
- Auto plant
- Machinist shop
- Fabricator

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Ed Black
Phone: (304) 781-1690 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: eblack@rcbi.org

1. MAT 135, MT 121, MT 215, MT 233, and MT 289 have a prerequisite of instructor permission.
2. ENL 231 has a prerequisite of ENL 111 or COM 111. This prerequisite may be waived for Machinist Technology majors. See advisor for information.
3. MT 223 has a prerequisite of MT 215.
4. NIMS Credentialing (National Institute for Metalworking Skills) students must be certified in at least three different skill areas as recognized by NIMS.
5. SS 201 may be substituted for ISM 133.
6. Choose at least one of the following: on campus: EC 102, SS 210, or SS 215; online: EC 102, HST 102, HST 103, HST 230, PSC 104, PSY 201, SOC 200, SS 201.

MANUFACTURING ENGINEERING TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:

A manufacturing engineering technologist is someone who has obtained specialized training and works with project engineers, machinists and production staff members to manufacture a variety of items from cars to biomedical implants. Students in this program gain an in-depth knowledge of computer aided design (CAD), computer numerical control (CNC), computer aided manufacturing (CAM), and machining techniques, as well as many standard manufacturing processes. Hands-on and applied coursework using the latest technologies, industry-sized equipment, and state-of-the-art software and hardware are the keys to an outstanding learning environment.

To thrive in today's global economy, manufacturing engineering technologists must have well developed oral and written communication skills, work successfully in teams and demonstrate an ability to solve manufacturing-related problems. The Marshall Community and Technical College Manufacturing Engineering Technology Program provides an environment in which students can master these skills.

The Manufacturing Engineering Technology Program is accredited by the Technology Accreditation Commission of Accreditation Board for Engineering and Technology (TAC-ABET). Through an advisory board consisting of experienced West Virginia manufacturing professionals and resources of the Robert C. Byrd Institute for Advance Flexible Manufacturing, this program is designed to prepare students for today and tomorrow's demanding workforce needs.

Upon completion of the Manufacturing Engineering Technology Associate in Applied Science Degree the graduate will be able to:

- Read and create blueprints of components and assemblies using 2-D, 3-D and solid modeling techniques.
- Generate CNC programs both manually and using CAM software for parts requiring 2, 3, and 4-axis programming.
- Assist or lead the design team with force and stress calculations, material selection, and specifying manufacturing processes.

Tech Prep Affiliation:

The Machinist Technology Program is aligned with the West Virginia Tech Prep Engineering/Technical Cluster.

MANUFACTURING ENGINEERING TECHNOLOGY

MAJOR CODE - CA60

FIRST YEAR

First Semester				Second Semester			
MAT	145	Applications in Algebra	3	ENL	111	Written Communication	3
SCI	220	Basic Chemistry[2]	3	MAT	146	Applications in Trigonometry[2]	3
MFE	116	Manufacturing Processes	3	MFE	225	CNC Programming I[5]	3
MFE	120	Introduction to Manual Machining[3]	4	MFE	230	Computer Aided Design II[6]	3
MFE	220	Computer Aided Design I[4]	4	MFE	250	Engineering Materials[7]	3
				SCI	110	Introductory Physics[2]	4
		TOTAL CREDITS	**17**			**TOTAL CREDITS**	**19**

SECOND YEAR

Third Semester				Fourth Semester			
COM	112	Oral Communication	3	ENL	231	Technical Report Writing[12]	3
ELT	110	Basic Electronics	3	MFE	245	Mechanics of Materials[13]	3
MAT	205	Technical Calculus[8]	3	MFE	270	Business Manufacturing[14]	3
MFE	235	Computer Aided Manufacturing[9]	3	MFE	290	Manufacturing Capstone[15]	3
MFE	240	Statistics[10]	3	SS	201	Human Relations	3
MFE	260	Tool Design-Jigs & Fixtures[11]	3	MFE	299	Internship (Optional)	1-4
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**15**

HOURS REQUIRED FOR GRADUATION: 69-73

Employment Opportunities:

Entry-level positions for which graduates will compete include:

- CAD Operator
- CNC Programmer
- CAM Specialist
- Engineering Designer
- Engineering Technician
- Mechanical Design Engineer
- Mechanical Drafter
- Product Designer

Contact Information:

Theodore Triplett
Phone: (304) 696-3435 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: triplettt@mctc.edu

1. Students are expected to have basic knowledge of computer operating systems such as Windows 2000 or XP and Microsoft Office 2000 or before starting this program. Student must register for IT
101 during her/his first semester or successfully pass a challenge examination for 101.
2. MAT 146, SCI 110, and SCI 220 have a prerequisite of MAT 145.
3. MFE 120 has a prerequisite of permission as well as a corequisite of MAT 145.
4. MFE 220 has a prerequisite of permission.
5. MFE 225 has a prerequisite of MFE 116 or MFE 120.
6. MFE 230 has a prerequisite of MFE 220.
7. MFE 250 has a prerequisite of MFE 116 and a SCI 220.
8. MAT 205 has a prerequisite of MAT 146.
9. MFE 235 has a prerequisite of MFE 225 and MFE 230.
10. MFE 240 has a prerequisite of SCI 110 and a corequisite of MAT 205.
11. MFE 260 has a corequisite of MFE 235.
12. COM 231 has a prerequisite of COM 111.
13. MFE 245 has a prerequisite of MFE 240.
14. MFE 270 has prerequisites of MFE 116, MFE 230, MFE 250, and MFE 260.
15. MFE 290 has prerequisites of MFE 235, MFE 250, and MFE 260 as well as a corequisite of MFE 270.

MARITIME TRAINING
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Maritime Training in Technical Studies program provides training to career-oriented individuals interested in obtaining an Associate in Applied Science Degree in inland marine related subjects. Individuals typically start out as deckhands and can progress to positions of greater responsibility based upon experience and meeting US Coast Guard regulated licensing requirements. Deckhands are responsible for rigging barges, maintaining barges once underway, and performing routine maintenance on towboats and barges.

Career Outlook:

The job outlook is expected to remain competitive for jobs in water transportation occupations. Increased river traffic (expected to grow 1.1% per year along the Ohio River through the year 2060) plus an aging workforce will provide opportunities for employment to both entry-level and tenured workers.

Salary Forecast:

The following annual pay and benefits information was provided by the inland marine industry:

Master	$90,000
Pilot	$70,000
Mate	$36,000
Engineer	$45,000
Tankerman	$41,000
Deckhand	$25,000

Salaries may vary depending on location, experience, and amount of education. Workers can also expect to receive varying amounts of production and safety bonuses and cost-share medical benefits. The annual pay and benefits vary by company. Please note that inland marine workers typically work only 8 months out of the year.

Program Admission Requirements:

The maritime worker is responsible for movement of huge amounts of cargo, as well as passengers, within the nation. The barge and towing industry provides:

- Extended time-off to its workers. When working, they are usually on duty for 6-hour periods, 24 hours a day, for up to 21 days. After each completed work schedule on board a towboat, workers have several days off at a stretch totaling as much as 8 months of time off annually.
- The flexibility to live where they want. Towboat crews often live several hundred miles from the waterways where they work. This flexibility means workers can live near their family and friends, and still be able to meet the boat when it is time to head back to work.
- The opportunity for a stable, well-paid career with unlimited potential to move up to positions of greater responsibility in a dynamic industry and drug-free environment.

Maritime workers operate and maintain tugboats, dredges, excursion vessels and various waterborne craft on the Great Lakes, rivers and canals, and other waterways in harbors. After 18 months of actual deckhand experience, individuals can attend U.S. Coast Guard-approved license training that leads to a license as a Master of Towing Vessels.

MARITIME TRAINING

MAJOR CODE - CT20 • CONCENTRATION CODE - CT22

COMPONENT I - General Education[2]

ENL	111	Written Communication[3]	3
COM	112	Oral Communication[3]	3
IT	101	Fundamentals of Computers (EDGE)	3
MAT	150	Applied Professional Mathematics	3
SCI	101	Unified Principles of Biology[4]	3
SS		Social Science Elective[5]	3
		General Education Elective[6]	3
TOTAL CREDITS			**21**

COMPONENT II - Technical Core

EC	102	Basic Economics	3
EME	105	First on Scene	3
MT	105	Industrial Safety	2
		Deckhand Training[1]	3
		Fire School Training[7]	1
TOTAL CREDITS			**12**

COMPONENT III - Technical/Occupational Speciality

Choose 15 hours from the following:

ENL	115	Written Communications II[8]	3
HMN	235	Leadership Development Studies[8]	3
ELT	110	Basic Electronics	3
ISM	133	Principles of Supervision & Management	3
MG	101	Intro to Business (EDGE)	3
MG	202	Business Organization & Management[9]	3
MT	205	Precision Measurement	3
TOTAL CREDITS			**15**

COMPONENT IV- (Optional) On-the-Job Training in the Occupation[10]

Maximum of 1,920 contact hours of on-the-job training can be earned for the Technical Studies Degree. Documentation of the total number of contact hours experienced on the job by the student may be placed on the college record. This credit will be recorded immediately prior to awarding the degree.

TOTAL CREDITS **12**

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Deckhand
- Tankerman
- Engineer
- Mate
- Pilot
- Master

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 696-3366 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brown175@mctc.edu

1. Must have certificate of completion of Deckhand Class or present a letter from employer confirming six (6) months employment as a deckhand.
2. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
3. Fulfills MCTC General Education and State Communication Skills requirements for Technical Studies Degree.
4. SCI 101 is currently available only as an Internet course. For information, contact advisor.
5. Select from EC 102, SS 201, SS 210, or SS 215.
6. Student may use a social science/humanities course to fulfill this requirement.
7. Must provide a certificate of completion of MCTC Fire School Training or provide proof of equivalency.
8. ENL 115 and HMN 235 have a prerequisite of ENL 111 or COM 111.
9. MG 202 has a prerequisite of MG 101.
10. A letter must be received from employer to verify employment and completed contact hours.

PUBLIC LIBRARY TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Public Library Technology program will provide critical training in areas such as cataloging, technical services, administration, children's and young adult programming, and technology as well as the general education skills needed to work in a public library. Because the program is available 100% on-line, those individuals who may be single-staff library operations in rural locations can take these courses without having to leave their libraries or homes.

Career Outlook:

Job opportunities are expected to be very good because a large number of librarians are expected to retire in the coming decade. More than 3 in 5 librarians are aged 45 or older and will become eligible for retirement in the next 10 years, which will result in many job openings. Also, the number of people going into this profession has fallen in recent years, resulting in more jobs than applicants in some cases. Jobs for librarians outside traditional settings will grow the fastest over the decade. Nontraditional librarian jobs include working as information brokers and working for private corporations, nonprofit organizations, and consulting firms. Many companies are turning to librarians because of their research and organizational skills and their knowledge of computer databases and library automation systems. Librarians can review vast amounts of information and analyze, evaluate, and organize it according to a company's specific needs. Librarians also are hired by organizations to set up information on the Internet.

Salary Forecast:

Median annual earnings of library technicians in May 2004 were $24,940. The middle 50 percent earned between $18,640 and $32,600. The lowest 10 percent earned less than $14,760, and the highest 10 percent earned more than $40,730. Salaries of library technicians in the Federal Government averaged $39,647 in 2005. Median annual earnings in the industries employing the largest numbers of library technicians in May 2004 were as follows:

Colleges, universities, and professional schools	$28,940
Local government	$23,560
Other information services	$22,550
Elementary and secondary schools	$22,510

Program Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Educational Opportunities:

Once a student completes the A.A.S. in the Transfer Studies program, s/he can move into the Regents Bachelor of Arts in Applied Science easily. Once a student earns a B.A. he/she can move on to a Master's in Library Science—the terminal credential required of professional librarians. Median annual earnings of librarians in May 2004 were $45,900. The middle 50 percent earned between $36,980 and $56,960. The lowest 10 percent earned less than $28,930, and the highest 10 percent earned more than $70,200.

PUBLIC LIBRARY TECHNOLOGY

MAJOR CODE – CL30

FIRST YEAR[1,2]

Fall Semester

ENL	111	Written Communication	3
IT	101	Fundamentals of Computers (EDGE)	3
MAT	115	Business Mathematics	3
PLT	100	Careers in Libraries[3]	3
PLT	230	Public Library Reference & Young Adult Services[3]	3
PLT	240	Public Library Organization & Administration	3
		TOTAL CREDITS	**18**

Spring Semester

COM	112	Oral Communication	3
PLT	210	Public Library Cataloging	3
PLT	235	Advanced Reference Skills[3]	3
PLT	250	Public Library Technology[3]	3
SS	201	Human Relations	3
		TOTAL CREDITS	**15**

SECOND YEAR

Fall Semester

ENL	115	Written Communication II[4]	3
IT	107	Fundamentals of the Internet	3
PLT	215	Advanced Cataloging	3
PLT	255	Collection Development[3]	3
		TOTAL CREDITS	**12**

Spring Semester

ENL	231	Technical Report Writing[4]	3
ENL	240	Literature of American Pop Culture	3
PLT	265	Preservation of Library Materials[4]	3
PLT	280	Sp Tp: Public Library Marketing	3
SS	215	Lifespan Psychology	3
		TOTAL CREDITS	**15**

Summer

PLT 220 Children's & Young Adult Services 3
PLT 260 Adult Library Services 3

Other Required Course

PLT 299 Capstone Experience 3

HOURS REQUIRED FOR GRADUATION: 69

Employment Opportunities:

- Library assistants
- Library technicians

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Kelli Johnson
Phone: (304) 696-6220 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: johnson28@mctc.edu

1. All PLT courses are offered only online.
2. The complete PLT A.A.S. degree may be obtained online.
3. This is an eight-weeks' course.
4. ENL 115, ENL 231 and ENL 240 have a prerequisite of ENL 111 or COM 111.

SURGICAL TECHNOLOGY STUDIES
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Technical Studies Degree is designed to meet three major needs:

- To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree and/or one-year Certificate for students in quality education and training programs.
- To increase the abilities of employees to use technology effectively and responsibly.
- To assist those employed in the workforce to understand that education is a life-long process. Marshall Community and Technical College delivers educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

Components of the program include the following: general education, classroom instruction in a technical core and in the occupational area, and possible on-the-job training. Technical Studies students must meet admission and performance standards. Credits earned through either the approved apprenticeship programs or through industry based education and training programs will not be added to the student's collegiate transcript until the student has completed three program credit hours from Marshall Community & Technical College and has obtained at least a 2.00 GPA.

Career Outlook:

Employment of surgical technologists is expected to grow much faster than average for all occupations through the year 2016 as the volume of surgery increases. Job opportunities are expected to be good. The number of surgical procedures is expected to rise as the population grows and ages. The number of older people, including the baby boom generation, who generally require more surgical procedures, will account for a larger portion of the general population. Technological advances, such as fiber optics and laser technology, will permit an increasing number of new surgical procedures to be performed and also will allow surgical technologists to assist with a greater number of procedures. Hospitals will continue to be the primary employer of surgical technologists, although much faster employment growth is expected in offices of physicians and in outpatient care centers, including ambulatory surgical centers.

Salary Forecast:

Salary ranges depend on the geographic location of the job. Median hourly earnings across the United States of surgical technologist were $38,740 in May 2008. The middle 50 percent earned between $32,490 and $46,910 per year. The lowest 10 percent earned less than $27,510 and the highest 10 percent earned more than $54,300 per year.

(US Department of Labor, Bureau of Labor Statistics, Occupational Outlook and Handbook, 2008-2009)

West Virginia	$31,760
Tennessee	$37,490
Kentucky	$35,060
Offices of dentists	$37,340
Offices of physicians	$40,320
General medical and surgical hospitals	$38,430

(Information obtained from the Occupational Outlook Handbook, 2008-2009)

Admission Requirements:

Prior to acceptance into the Surgical Technology Program, a student must have completed the following:

1. Prerequisite college courses. Courses may be completed at any postsecondary institution. For courses to qualify for the Associate of Applied Science degree in Technical Studies through MCTC, must be accepted and successfully transferred to Marshall Community & Technical College. This transfer process is the sole responsibility of the student. A minimum of 12 hours must be taken at MCTC to be granted the Associate degree.

   The following courses must be passed with a "C" or better.
   - MAT 145-College Algebra
   - ENL 111-Written Communication
   - SS 215- Lifespan Psychology
   - BIOL-257-Intro to Anatomy & Physiology

   To get an application to the Surgical Technology program you must complete numbers 2 or 3.

2. Minimum ACT score of 21 or
3. Successful completion of the pre-entrance (WorKeys) examination with a score of four in Locating for Information, and five in both the Math and Reading for Comprehension.

SURGICAL TECHNOLOGY STUDIES

MAJOR CODE – CS10

COMPONENT I - General Education[1]	COMPONENT II - Technical Core
COM 112 Oral Communication. 3	AH 151 Medical Terminology (EDGE). 3
ENL 111 Written Communication. 3	AH 207 Infection Control for Health Professionals .4
ENL 231 Technical Report Writing. 3	
IT 101 Fundamentals of Computers (EDGE) 3	
MAT 145 Applications in Algebra[2] 3	
BIOL 257 Intro to Anatomy & Physiology (EDGE). .3	
SS 215 Lifespan Psychology. 3	
TOTAL CREDITS. 21	**TOTAL CREDITS. 7**
COMPONENT III - Technical Occupational Specialty[3] **Technical component articulated from Collins Career Center consists of the following courses.** Surgical Technology 100 Surgical Technology 101 Pharmacology for Surgical Technology Surgical Technology 200 Surgical Technology 201 Surgical Technology 300 Surgical Technology 301 Surgical Technology 400 Surgical Technology 401 **TOTAL ARTICULATED CREDITS. 35**	**COMPONENT IV – On-The-Job Training** **(1-12 Credit Hours may be awarded)** A letter verifying completion of contact hours must be received by the Dean's Office, located in the Marshall Community & Technical College Advising Center, prior to applying for graduation, for credit to be awarded. 160 clock hours equals 1 college credit hour. **(1-12 Credit Hours may be awarded)**
HOURS REQUIRED FOR GRADUATION: 63	

Employment Opportunities:

- Hospitals
- Physicians office
- Dentist office
- Outpatient care centers
- Ambulatory surgical center

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Adam Swolsky • Cabell Hall, Room 303
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolsky@mctc.edu

1. Cooperative Degree between Marshall Community & Technical College and Collins Career Center.
2. MAT 145 has a prerequisite of ACT 19; MAT 097; or PLAC 100.
3. 35 credit hours are awarded, based on successful completion of all nine surgical technology courses.

WELDING
ASSOCIATE IN APPLIED SCIENCE-TECHNICAL STUDIES

Program Description:
The Technical Studies Degree, limited to high school students enrolled in the EDGE program, is designed to provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree and/or One-Year Certificate.

Marshall Community & Technical College delivers educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

Components of the program include the following: general education, classroom instruction in a technical core and in the occupational area, and possible on-the-job training.

Technical Studies students must meet admission and performance standards. Credits earned through either the approved apprenticeship programs or through industry-based education and training programs will not be added to the student's collegiate transcript until the student has completed twelve program credit hours from Marshall Community & Technical College and has obtained at least a 2.0 GPA.

Career Outlook:
Employment of welding, soldering, and brazing workers is expected to grow more slowly than average for all occupations over the 2004-14 period. Despite this, job prospects should be excellent as employers report difficulty finding enough qualified people. In addition, many openings are expected to arise as a large number of workers retire over the next decade.

Despite slower-than-average job growth, technology is creating more uses for welding in the workplace and expanding employment opportunities. For example, new ways are being developed to bond dissimilar materials and nonmetallic materials, such as plastics, composites, and new alloys. Also, laser beam and electron beam welding, new fluxes, and other new technologies and techniques are improving the results of welding, making it useful in a wider assortment of applications. Improvements in technology have also boosted welding productivity, making welding more competitive with other methods of joining materials.

Salary Forecast:
Median hourly earnings of welders, cutters, solderers, and brazers were $15.10 in May 2006. The middle 50 percent earned between $12.30 and $18.47. The lowest 10 percent had earnings of less than $10.08, while the top 10 percent earned over $22.58. The range of earnings of welders reflects the wide range of skill levels. Median hourly earnings in the industries employing the largest numbers of welders, cutters, solderers, and brazers in May 2006 were:

Motor vehicle parts manufacturing	$16.47
Agriculture, construction, and mining machinery manufacturing	$14.12
Architectural and structural metals manufacturing	$13.98
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	$13.45
Motor vehicle body and trailer manufacturing	$13.45

Program Admission Requirements:
The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

Vocational Site Partnerships:
In addition, Marshall Community & Technical College offers an Associate in Applied Science Technical Studies in conjunction with its Vocational Site Partnerships at Technical Centers in Cabell, Mason, Putnam and Wayne counties, through EDGE.

WELDING

MAJOR CODE – CT20 • CONCENTRATION CODE – CT29

COMPONENT I - General Education[1]	COMPONENT III - Technical/Occupational Speciality[7]
COM 112 Oral Communication. 3	Fundamentals Welding Technology (EDGE)
ENL 111 Written Communication. 3	Thermal Cutting and Welding (EDGE)
ENL 231 Technical Report Writing[2]. 3	Shielded Metal Arc Welding (EDGE)
IT 101 Fundamentals of Computers (EDGE). . .3	Gas Metal Arc Welding (EDGE)
MAT/SCI Electives[3]. 6	**TOTAL COMPONENT III. 20**
SS Social Science Elective[4]. 3	
TOTAL CREDITS. 21	
COMPONENT II - Technical Core	**COMPONENT IV- (Optional)**
ENL 115 Written Communication II[2]. 3	**On-the-Job Training in the Occupation**
HMN 235 Leadership Studies[5]. 3	**(1-12 Credit Hours May be Awarded)**
EC 102 Basic Economics. 3	A letter verifying completion of contact hours must be
ELT 110 Basic Electronics. 3	received by the Dean of Student Service's Office, located in
MG 101 Intro to Business (EDGE). 3	the Marshall Community & Technical College Building, Room
MG 202 Business Organization & Management[6]. .3	110 prior to applying for graduation for credit to be awarded.
MG 209 Occupational Safety. 3	160 clock hours equals 1 college credit hour.
MK 210 Customer Service[2]. 3	**TOTAL CREDITS. 12**
TOTAL CREDITS. 9-21	
HOURS REQUIRED FOR GRADUATION: 60	

Employment Opportunities:

- Building equipment contractor
- School maintenance
- Repair shop
- Self-employment

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building, Room 307
Phone: (304) 696-3366 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brown175@mctc.edu

1. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
2. ENL 115, ENL 231, and MK 210 have a prerequisite of ENL 111 or COM 111.
3. Six total Quantitative Skills/Laboratory Science Experience credits are required for Technical Studies Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select a laboratory science course from the following: SCI 110, SCI 120, or SCI 201.
4. Select from EC 102, SS 201, SS 210, or SS 215.
5. Required capstone course.
6. MG 202 has a prerequisite of MG 101.
7. Verification of completion of CTE classes with a score of 74% or better on the final exam must be forwarded to West Virginia Community and Technical College System in Charleston, by course instructor.

Occupational Development

BUILDING AND OCCUPATIONAL TRADE

CHILD DEVELOPMENT SPECIALIST

FIREFIGHTER

LAW ENFORCEMENT

MINE INSPECTION

OCCUPATIONAL DEVELOPMENT

PAINTING AND ALLIED TRADES

POLICE SCIENCE

BUILDING AND OCCUPATIONAL TRADES ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Occupational Developmental Degree in Building and Construction Trades is designed to meet two major needs:

(1) To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree for students in approved apprenticeship training programs;
(2) To provide a mechanism for Marshall Community & Technical College to deliver educational programs to individuals employed in the Building and Construction Trades field.

The United States Department of Labor, Bureau of Apprenticeships and Training (BAT) identifies eligible apprenticeships. Components of the program include the following: general education courses, classroom instruction in Building and Construction Trades, and on-the-job training.

Occupational Development students must meet admission and performance standards. Credits earned through either approved apprenticeship programs or through industry-based education and training programs will not be added to the students' collegiate transcripts until they have completed three program credit hours from Marshall Community & Technical College and have obtained at least a 2.00 GPA.

The student who graduates with the Occupational Development Degree in Building and Construction Trades will possess:

- Supervisory skills
- Computer software skills
- Relevant essential math skills
- Written and oral communication skills

Career Outlook:

Good employment opportunities for construction managers are expected through 2012 because the number of job openings should be sufficient to accommodate the number of qualified managers seeking to enter the occupation.

Salary Forecast:

Earnings of salaried construction managers and self-employed independent construction contractors vary depending upon the size and nature of the construction project, its geographic location, and economic conditions. In addition to typical benefits, many salaried construction managers receive benefits such as bonuses and use of company motor vehicles.

Median annual earnings of construction managers in 2004 were $69,870. The middle 50 percent earned between $53,430 and $92,350. The lowest 10 percent earned less than $42,120, and the highest 10 percent earned more than $126,330. Median annual earnings in the industries employing the largest numbers of construction managers in 2004 were:

Nonresidential building construction	$71,700
Foundation, structure, and building exterior contractors	$64,250
Building finishing contractors	$72,560
Residential building construction	$67,190
Other specialty trade contractors	$68,110

According to a 2005 salary survey by the National Association of Colleges and Employers, candidates with a degree in construction science/management received job offers averaging $42,923 a year.

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

OCCUPATIONAL DEVELOPMENT

BUILDING AND OCCUPATIONAL TRADES

MAJOR CODE - C010 • CONCENTRATION CODE – C017

FIRST YEAR

Component I - General Education[1]

ENL	111	Written Communication[2]	3
COM	112	Oral Communication[3]	3
IT	101	Fundamentals of Computers[4] (EDGE)	3
		General Education Elective	3
		Laboratory Science Course[5]	3-4
		Quantitative Skills Course[5]	3
		Social Science Course[6]	3
		TOTAL CREDITS	**21-22**

Component II - Classroom Instruction in the Occupation[7]

450-750 Classroom/Laboratory contact hours of Occupational Education converted to credit hours at the usual ration of 15:1 classroom or 30:1 laboratory.

MAXIMUM TOTAL CREDITS. 40

Component III - On-the-Job Training in Occupation[8]

Maximum of 2,400 contact hours of on-the-job training, converted to credit hours on a ratio of 200:1, can be counted toward the A.A.S. Degree. A statement of the total number of contact hours experienced on the job by the student may be placed on the college record. This credit will be recorded immediately prior to graduation from the college

TOTAL CREDITS. 12

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Building and trades
- Apprenticeship instructor

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 525-1468 • E-mail: brown175@mctc.edu

1. Students must be employed in an occupation and complete a Department of Labor approved apprenticeship.
2. Fulfills state Written Communication Skills requirement for Occupational Development Degree.
3. Fulfills state Oral Communication Skills requirement for Occupational Development Degree.
4. IT 101 fulfills state General Education Elective Requirement for Occupational Development Degree and General Education Core.
5. Six total Quantitative Skills/Laboratory Science Experience credits are required for Occupational Development Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select a laboratory science course from the following: SCI 110, SCI 120, SCI 201, or SCI 257.
6. To fulfill Social Science Course requirement for Occupational Development select from EC 102, SS 201, SS 210, or SS 215.
7. Must provide documentation of completed Building and Construction Trades classroom instruction apprenticeship. A statement of the total number of classroom instruction hours may be placed on the college record, with credit being recorded immediately prior to graduation from college.
8. A letter must be received from employer to verify this employment.

CHILD DEVELOPMENT SPECIALIST
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Occupational Developmental Degree in Child Development Specialist is designed to meet two major needs:

(1) To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree for students in approved apprenticeship training programs;
(2) To provide a mechanism for Marshall Community & Technical College to deliver educational programs to individuals employed in the Child Development field.

The United States Department of Labor, Bureau of Apprenticeships and Training (BAT) identifies eligible apprenticeships. Components of the program include the following: general education courses, classroom instruction in child development, and on-the-job training.

Occupational Development students must meet all admission and performance standards. Credits earned through either approved apprenticeship programs or through industry-based education and training programs will not be added to the students' collegiate transcripts until they have completed three program credit hours from Marshall Community & Technical College and have obtained at least a 2.00 GPA.

The Occupational Development Degree in Child Development Specialist will prepare the student for employment in day care centers, Head Start Programs, and other early childhood learning centers. The Child Development Specialist graduate will possess:

- Supervisory skills
- Computer software skills
- Relevant essential math skills
- Written and oral communication skills

Career Outlook:

High replacement needs should create good job opportunities for childcare workers. Many childcare workers must be replaced each year as they leave the occupation to take other jobs, to meet family responsibilities, or for other reasons. Qualified persons who are interested in this work should have little trouble finding and keeping a job. Opportunities for nannies should be especially good, as many workers prefer not to work in other people's homes.

Salary Forecast:

Pay depends on the educational attainment of the worker and the type of establishment. Although the pay generally is low, more education usually means higher earning potential. Median hourly earnings of wage and salary childcare workers were $8.06 in 2004. The middle 50 percent earned between $6.75 and $10.01. The lowest 10 percent earned less than $5.90 and the highest 10 percent earned more than $12.34. Median hourly earnings in the industries employing the largest numbers of childcare workers in 2004 were as follows:

Other residential care facility	$9.66
Elementary and secondary schools	$9.22
Civic and social organizations	$7.62
Child day care services	$7.56
Other amusement and recreation industries	$7.34

Earnings of self-employed childcare workers vary depending on the hours worked, the number and ages of the children, and the location.

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission.

CHILD DEVELOPMENT SPECIALIST

MAJOR CODE - C010 • CONCENTRATION CODE – C012

FIRST YEAR

Component I - General Education[1,3]				Component II - Classroom Training	
ENL	111	Written Communication[4]	3	Occupational Component Elective[2]	7
COM	112	Oral Communication[4]	3	Classroom Training in Child Development[7]	20
IT	101	Fundamentals of Computers (EDGE)	3		
		General Education Elective	3		
		Laboratory Science Course[5]	3-4		
		Quantitative Skills Course[5]	3		
		Social Science Course[6]	3		
		TOTAL CREDITS	**21-22**	**MAXIMUM TOTAL CREDITS**	**27**

Component III - On-the-Job Training in Child Development[8,9]

A letter verifying completion of contact hours must be received by the Dean's Office, located in Marshall Community & Technical College Building, Room 110 prior to applying for graduation for credit to be awarded.

TOTAL CREDITS. 12

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Childcare supervisor
- Childcare

Earn a Degree Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Sara Dick • CTC, Room 127
Phone: (304) 696-3366 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: crouse@mctc.edu

1. Students may enter this program with no prior experience, but must complete approved Child Development Apprenticeship before being eligible for graduation.
2. Child Development Associate (CDA) may fulfill 12 credit hours of electives in Occupational Component Electives, otherwise contact advisor for selecting courses to fulfill this requirement.
3. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
4. Fulfills MCTC General Education and State Communication Skills requirement for Occupational Development Degree.
5. Six total Quantitative Skills/Laboratory Science Experience credits are required for Occupational Development Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select a laboratory science course from the following: SCI 110, SCI 120, or SCI 201.
6. To fulfill Social Science Course requirements for Occupational Development and General Education Core Degree select from EC 102, SS 201, SS 210, or SS 215.
7. Must provide documentation of West Virginia Department of Education and the Bureau of Apprenticeship and Training "Child Development Specialist" completion to have credit recorded immediately prior to graduation.
8. A letter must be received from employer to verify this employment.
9. Maximum of 2,400 contact hours of on-the-job training, converted to credit hours on a ratio of 200:1, can be counted toward the A.A.S. degree.

FIREFIGHTER
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Occupational Developmental Degree in Firefighting is designed to meet two major needs:

(1) To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree for students in approved apprenticeship training programs;
(2) To provide a mechanism for Marshall Community & Technical College to deliver educational programs for individuals working in the Firefighting field.

The United States Department of Labor, Bureau of Apprenticeships and Training (BAT) identifies eligible apprenticeships. Components of the program include the following: general education courses, classroom instruction in Firefighting, and possible on-the-job training.

Occupational Development students must meet admission and performance standards. Credits earned through either approved apprenticeship programs or through industry-based education and training programs will not be added to the students' collegiate transcripts until they have completed three program credit hours from Marshall Community & Technical College and have obtained at least a 2.00 GPA.

Firefighters are government employees who help protect the public from fires and other emergencies. Firefighters administer first aid and emergency medical attention and are often the first emergency personnel on the scene of an accident. While work schedules vary greatly, firefighters typically work 24-hour shifts with one to three days off between shifts. The profession can be very rewarding and is highly regarded by the general public.

Career Outlook:

Employment of fire fighters is expected to grow faster than the average for all occupations through 2014. Most job growth will occur as volunteer firefighting positions are converted to paid positions in growing suburban areas. In addition to job growth, openings are expected to result from the need to replace firefighters who retire, stop working for other reasons, or transfer to other occupations.

Salary Forecast:

Median hourly earnings of firefighters were $18.43 in May 2004. The middle 50 percent earned between $13.65 and $24.14. The lowest 10 percent earned less than $9.71, and the highest 10 percent earned more than $29.21. Median hourly earnings were $18.78 in local government, $17.34 in the federal government, and $14.94 in state government.

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

FIREFIGHTER

MAJOR CODE - C010 • CONCENTRATION CODE – C013

FIRST YEAR

Component I - General Education[1,2]

ENL	111	Written Communication[3]	3
COM	112	Oral Communication[3]	3
IT	101	Fundamentals of Computers[4] (EDGE)	3
		General Education Elective[5]	3
		Science Course[6]	3-4
		Quantitative Skills Course[6]	3
		Social Science Course[7]	3
		TOTAL CREDITS	**21-22**

Component II - Classroom Instruction in the Occupation[8]

450-750 Classroom/Laboratory contact hours of Occupational Education converted to credit hours at the usual ratio of 15:1 classroom or 30:1 laboratory.

TOTAL CREDITS. 30-40

Component III - On-the-Job Training in the Occupation

Maximum of 2,400 contact hours of on-the-job training, converted to credit hours on a ratio of 200:1, can be counted toward the A.A.S. Degree. A letter from the employer verifying the total number of contact hours experienced on the job by the student may be placed on the college record. This credit will be recorded immediately prior to graduation from the college.

TOTAL CREDITS. 9-12

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Firefighter
- Firefighter supervisor

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 525-1468 • E-mail: brown175@mctc.edu

1. Student must be employed in firefighter occupation and complete a Department of Labor approved apprenticeship training program.
2. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
3. Fulfills MCTC General Education and State Communication Skills requirement for Occupational Development Degree.
4. IT 101 fulfills state General Education Elective Requirement for Occupational Development Degree and General Studies Core.
5. ENL 115, SS 201, SS 210, or SS 215 may be used to fulfill state requirements for the General Education Elective for the Occupational Development Degree.
6. Six total Quantitative Skills/Science Experience credits are required for Occupational Development Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select a laboratory science course from the following: SCI 101, SCI 110, SCI 120, SCI 201, or SCI 257.
7. To fulfill Social Science Course requirements for Occupational Developmental and General Education Core Degree, select from EC 102, SS 201, SS 210, or SS 215.
8. Must provide a certificate or letter of completed Firefighter classroom instruction. A statement of the total number of classroom instruction hours may be placed on the college record, with credit being recorded immediately prior to graduation from college.

LAW ENFORCEMENT
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Occupational Developmental Degree in Law Enforcement is offered in cooperation with the West Virginia State Police.

Admission to this program is restricted to state and local (city/county) law enforcement personnel who have been selected to attend or have completed training at the Police Academy.

The State Police Academy currently serves the state of West Virginia as the only law enforcement training facility that has been approved by the Governor's Committee on Crime, Delinquency, and Correction to provide mandatory entry-level police training.

Local law enforcement officers spend 16 weeks in residence at the State Police Academy and may receive up to 18 hours of academic credits toward Associate in Applied Science degree requirements. Remaining degree requirements may be met either on the Marshall Community & Technical College campus or at another institution of higher education offering appropriate coursework in proximity of place of residence. The program requires 21-22 credit hours of general education; 18 credit hours of classroom instruction; 9 credit hours of occupation-specific college courses and/or certification of training, Military Police Security Training, or training received through Law Enforcement Continuing Education; and 12 credit hours of on-the-job-training.

Career Outlook:

The opportunity for public service through law enforcement work is attractive to many because the job is challenging and involves much personal responsibility. Furthermore, law enforcement officers in many agencies may retire with a pension after 20 or 25 years of service, allowing them to pursue a second career while still in their 40s. Because of relatively attractive salaries and benefits, the number of qualified candidates exceeds the number of job openings in federal law enforcement agencies and in most state police departments—resulting in increased hiring standards and selectivity by employers. Competition should remain keen for higher paying jobs with state and federal agencies and police departments in more affluent areas. Opportunities will be better in local and special police departments, especially in departments that offer relatively low salaries, or in urban communities where the crime rate is relatively high. Applicants with college training in police science, military police experience, or both should have the best opportunities.

Employment of police and detectives is expected to grow faster than the average for all occupations through 2012. A more security-conscious society and concern about drug-related crimes should contribute to the increasing demand for police services.

Salary Forecast:

Police and sheriff's patrol officers had median annual earnings of $45,210 in May 2004. The middle 50 percent earned between $34,410 and $56,360. The lowest 10 percent earned less than $26,910, and the highest 10 percent earned more than $68,880. Median annual earnings were $44,750 in federal government, $48,980 in state government, and $45,010 in local government.
In May 2004, median annual earnings of police and detective supervisors were $64,430. The middle 50 percent earned between $49,370 and $80,510. The lowest 10 percent earned less than $36,690, and the highest 10 percent earned more than $96,950. Median annual earnings were $86,030 in federal government, $62,300 in state government, and $63,590 in local government.

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

LAW ENFORCEMENT

MAJOR CODE - C010 • CONCENTRATION CODE – C014

FIRST YEAR

Component I - General Education[1,2]

ENL	111	Written Communication[3]	3
COM	112	Oral Communication[3]	3
IT	101	Fundamentals of Computers[4] (EDGE)	3
		Science Course[4]	3-4
		Quantitative Skills Course[4]	3
		Social Science Course[5]	3
		General Education Elective[6]	3

TOTAL CREDITS. 21-22

Component II - A
Classroom Instruction in the Occupation[7,8]
Classroom/Laboratory contact hours (450-750)of Occupational Education converted to credit hours at the usual ration of 15:1 classroom or 30:1 laboratory.

PST	111	Law Enforcement Orientation	3
PST	122	Police Arsenal and Weapons	3
PST	231	Fundamentals of Criminal Law	2
PST	233	Fundamentals of Criminal	3
PST	239	Criminal Evidence and Procedure	3
PST	244	Intro to Criminalistics	2
PST	248	Traffic Administration and Enforcement	2

TOTAL CREDITS. 18

Component II - B
LAS 101 General Law 1, LAS 102 General Law II, EME 109 Emergency Medical Technician (EDGE), or other approved courses, certifications, or Military Police Security Training, or training received through Law Enforcement Continuing Education may be substituted.

TOTAL CREDITS. 9

Component III -
On-the-Job Training in Law Enforcement[9]
Maximum of 2400 contact hours of on-the-job training, converted to credit hours on a ratio of 200:1, can be counted toward the A.A.S. Degree. A letter from the employer verifying the total number of student contact hours on the job will be placed on the college record, with credit recorded immediately prior to graduation from the college.

TOTAL CREDITS. 12

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Deputy sheriff
- City police

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 525-1468 • E-mail: brown175@mctc.edu

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1. Student must be employed in Law Enforcement to begin this degree.
2. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
3. Fulfills MCTC General Education and State Communication Skills requirement for Occupational Development Degree.
4. Six total Quantitative Skills/ Science Experience credits are required for Occupational Development Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select a laboratory science course from the following: SCI 101, SCI 110, SCI 120, SCI 201, or SCI 257.
5. To fulfill Social Science Course requirements for Occupational Developmental and General Education Core Degree, select from EC 102, SS 201, SS 210, or SS 215.
6. Student may use a social science/humanities course to fulfill this requirement.
7. These hours are taken at the West Virginia State Police Academy.
8. These hours can be transferred to other state institutions.
9. Director of WV State Police must approve employment site. Call (304) 746-2117 for more information.

MINE INSPECTION
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Occupational Developmental Degree is designed to meet two major needs:

(1.) To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree for students in approved apprenticeship training programs;
(2.) To provide a mechanism for Marshall Community & Technical College to deliver educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

The United States Department of Labor, Bureau of Apprenticeships and Training (BAT) identifies eligible apprenticeships. Components of the program include the following: general education, classroom instruction, and on-the-job training.

Occupational Development students must meet all admission and performance standards. Credits earned through either approved apprenticeship programs or through industry-based education and training programs will not be added to the students' collegiate transcripts until they have completed three program credit hours from Marshall Community & Technical College and have obtained at least a 2.00 GPA.

The student who graduates with the Associate in Applied Science Degree in Occupational Development will possess:

- Supervisory skills
- Computer software skills
- Relevant essential math skills
- Written and oral communication skills

Career Outlook:

Job opportunities should be favorable for construction, extraction, and production workers in coal mining and nonmetallic mineral mining. Many miners are approaching retirement age and younger miners will be hired to replace the retirees. Job turnover rates also are high in nonmetallic mineral mining because most mines are small and operate only during warm months; therefore, these mines tend to hire workers as they are needed. Jobs in nonmetallic mineral mining attract many migrant workers and those looking for summer employment. Job opportunities for professional workers, such as scientists and engineers, will be best in operations that provide exploration and mining.

Salary Forecast:

Average wage and salary earnings in mining were significantly higher than the average for all industries. In 2004, production workers earned $21.57 an hour in coal mining, $22.91 an hour in metal mining, and $17.74 an hour in nonmetallic minerals mining compared to the private industry average of $15.67 an hour. Workers in underground mines spend time traveling from the mine entrance to their working areas, so that their paid workday is slightly longer than that of surface mine workers, 8 hours versus 7 1/4-hour shifts.

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

MINE INSPECTION

MAJOR CODE - C010 • CONCENTRATION CODE – C015

FIRST YEAR

Component I - General Education[1,2]

ENL	111	Written Communication[3]	3
COM	112	Oral Communication[3]	3
IT	101	Fundamentals of Computers[4] (EDGE)	3
		Social Science Courses[5]	3
		General Education Elective[6]	3
		Quantitative Skills Course[6]	3
		Laboratory Science Course[7]	3-4
		TOTAL CREDITS	**21-22**

Component II - Classroom Instruction in the Occupation[8]

450-750 Classroom/Laboratory contact hours of Occupational Education converted to credit hours at the usual ratio of 15:1 classroom or 30:1 laboratory.

TOTAL CREDITS. 30-40

Component III - On-the-Job Training in Occupation

Maximum of 2,400 contact hours of on-the-job training, converted to credit hours on a ratio of 200:1, can be counted toward the A.A.S. Degree. A statement of the total number of contact hours experienced on the job by the student may be placed on the college record. This credit will be recorded immediately prior to graduation from the college

TOTAL CREDITS. 12

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Mine safety inspector

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 525-1468 • E-mail: brown175@marshall.edu

1. Students must be employed in an occupation and complete an apprenticeship.
2. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
3. Fulfills MCTC General Education and State Communication Skills requirements for Occupational Development Degree.
4. IT 101 fulfills state General Education Elective Requirement for Occupational Development Degree and General Studies Core.
5. To fulfill General Education Electives requirement for Occupational Development and General Education Core Degree, select from ENL 115, EC 102, SS 201, SS 210, or SS 215.
6. Six total Quantitative Skills/Science Experience credits are required for Occupational Development Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second-college level mathematics course or select a laboratory science course from the following: SCI 101, SCI 110, SCI 120, SCI 201 and SCI 257.
7. To fulfill Social Science Course requirements for Occupational Developmental and General Education Core Degree, select from EC 102, SS 201, SS 210, or SS 215
8. Must provide a certificate or letter of completed classroom instruction. A statement of the total number of classroom instruction hours may be placed on the college record, with credit being recorded immediately prior to graduation from college.

OCCUPATIONAL DEVELOPMENT
ASSOCIATE IN APPLIED SCIENCE

Program Description:
The Occupational Developmental Degree is designed to meet two major needs:

(1) To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree for students in approved apprenticeship training programs;
(2) To provide a mechanism for Marshall Community & Technical College to deliver educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

The United States Department of Labor, Bureau of Apprenticeships and Training (BAT) identifies eligible apprenticeships. Components of the program include the following: general education, classroom instruction, and on-the-job training.

Occupational Development students must meet all admission and performance standards. Credits earned through either approved apprenticeship programs or through industry-based education and training programs will not be added to the students' collegiate transcripts until they have completed three program credit hours from Marshall Community & Technical College and have obtained at least a 2.00 GPA.

The student who graduates with the Associate in Applied Science Degree in Occupational Development will possess:

- Supervisory skills
- Computer software skills
- Relevant essential math skills
- Written and oral communication skills

Admission Requirements:
The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

OCCUPATIONAL DEVELOPMENT

MAJOR CODE - C010

FIRST YEAR

Component I - General Education[1,2]

ENL	111	Written Communication[3]	3
COM	112	Oral Communication[3]	3
IT	101	Fundamentals of Computers[4] (EDGE)	3
		Social Science Course[7]	3
		General Education Elective[5]	3
		Quantitative Skills Course[6]	3
		TOTAL CREDITS	**21-22**

Component II - Classroom Instruction in the Occupation[8]

450-750 Classroom/Laboratory contact hours of Occupational Education converted to credit hours at the usal ratio of 15:1 classroom or 30:1 laboratory.

TOTAL CREDITS. 30-40

Component III - On-the-Job Training in Occupation

Maximum of 2,400 contact hours of on-the-job training, converted to credit hours on a ratio of 200:1, can be counted toward the A.A.S. Degree. A statement of the total number of contact hours experienced on the job by the student may be placed on the college record. This credit will be recorded immediately prior to graduation from the college

TOTAL CREDITS. 12

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Work as a Journeyman

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 525-1468 • E-mail: brown175@mctc.edu

1. Student must be employed in an occupation and complete an apprenticeship.
2. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
3. Fulfills MCTC General Education and State Communication Skills requirements for Occupational Development Degree.
4. IT 101 fulfills state General Education Elective Requirement for Occupational Development Degree and General Studies Core.
5. To fulfill General Education Electives requirement for Occupational Development and General Education Core Degree, select from EC 102, SS 201, SS 210, or SS 215.
6. Six total Quantitative Skills/Laboratory Science Experience credits are required for Occupational Development Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select a laboratory science course from the following: SCI 101, SCI 110, SCI 120, SCI 201, or SCI 257.
7. To fulfill Social Science Course requirements for Occupational Developmental and General Education Core Degree, select from EC 102, SS 201, SS 210, or SS 215
8. Must provide a certificate or letter of completed classroom instruction. A statement of the total number of classroom instruction hours may be placed on the college record, with credit being recorded Immediately prior to graduation from college.
9. A letter must be received from employer to verify this employment.

PAINTING AND ALLIED TRADES
ASSOCIATE IN APPLIED SCIENCE

Program Description:

The Occupational Developmental Degree in Painting and Allied Trades is designed to meet two major needs:

(1) To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree for students in approved apprenticeship training programs;
(2) To provide a mechanism for Marshall Community & Technical College to deliver educational programs for individuals working in the Painting and Allied Trades field.

The United States Department of Labor, Bureau of Apprenticeships and Training (BAT), identifies eligible apprenticeships. Components of the program include the following: general education courses, classroom instruction, and on-the-job training.
Occupational Development students must meet admission and performance standards. Credits earned either through approved apprenticeship programs or through industry-based education and training programs will not be added to the students' collegiate transcripts until they have completed three program credit hours from Marshall Community & Technical College and have obtained at least a 2.00 GPA.

The student who graduates with the Occupational Development Degree in Painting and Allied Trades will possess:

- Apprenticeship training skills
- Supervisory skills
- Computer software skills
- Relevant essential math skills
- Written and oral communication skills

Career Outlook:

Overall employment of painting and coating workers is expected to grow about as fast as the average for all occupations through the year 2012. Employment growth for highly skilled transportation painters and automotive refinishers is projected to be faster than for lesser skilled painting, coating, and spraying machine operators. In addition to jobs arising from growth, some jobs will become available each year as employers replace experienced operators who transfer to other occupations or leave the labor force.

Salary Forecast:

In May 2004, median hourly earnings of painters, construction and maintenance were $14.55. The middle 50 percent earned between $11.59 and $19.04. The lowest 10 percent earned less than $9.47, and the highest 10 percent earned more than $25.11. Median hourly earnings in the industries employing the largest numbers of painters in May 2004 were as follows:

Local government	$18.36
Residential building construction	$15.09
Nonresidential building construction	$14.97
Building finishing contractors	$14.44
Employment services	$11.31

In May 2004, median hourly earnings for paperhangers were $15.73. The middle 50 percent earned between $12.23 and $20.70. The lowest 10 percent earned less than $9.57, and the highest 10 percent earned more than $26.58.

Admission Requirements:

The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

PAINTING AND ALLIED TRADES

MAJOR CODE - C010 • CONCENTRATION CODE – C016

FIRST YEAR

Component I - General Education[1,2]

ENL	111	Written Communication[3]	3
COM	112	Oral Communication[3]	3
IT	101	Fundamentals of Computers[4] (EDGE)	3
		Social Science Courses[5]	3
		General Education Elective[6]	3
		Quantitative Skills Course[6]	3
		Laboratory Science Course[7]	3-4
		TOTAL CREDITS	**21-22**

Component II - Classroom Instruction in the Occupation[7]

450 to 750 Classroom/Laboratory contact hours of Occupational Education converted to credit hours at the usual ratio of 15:1 classroom or 30:1 laboratory

MAXIMUM TOTAL CREDITS. 40

Component III - On-the-Job Training in Occupation

Maximum of 2,400 contact hours of on-the-job training, converted to credit hours on a ratio of 200:1, can be counted toward the A.A.S. Degree. A statement of the total number of contact hours experienced on the job by the student may be placed on the college record. This credit will be recorded immediately prior to graduation from the college

TOTAL CREDITS. 12

HOURS REQUIRED FOR GRADUATION: 60

Employment Opportunities:

- Work as journeyman
- Apprenticeship instructor
- Jobsite foreman

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 525-1468 • E-mail: brown175@mctc.edu

1. Student must complete a Department of Labor approved apprenticeship.
2. Fulfills state Written Communication Skills requirement for Occupational Development Degree.
3. Fulfills state Oral Communication Skills requirement for Occupational Development Degree.
4. IT 101 fulfills state General Education Elective Requirement for Occupational Development Degree and General Education Core.
5. To fulfill Social Science Course requirements for Occupational Development and General Education Core Degree, select from EC 102, SS 201, SS 210, or SS 215. Check with an advisor for approved Humanities or other general education approved courses. Three hours total of TTA 101, TTA 102, and/or TTA 203 may be used to fulfill 3 credit hours of the Social Science and General Education Electives.
6. Six total Quantitative Skills/Science Experience credits are required for Occupational Development Degree and General Education Core. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six credit requirement with a second college-level mathematics course or select a laboratory science course from the following: SCI 101, SCI 110, SCI 120, SCI 201, or SCI 257. Note: 3 credit hours of lab science can be met with specialized training listed as OD 104 through 111.
7. Must provide a certificate or letter of completed classroom instruction. A statement of the total number of classroom instruction hours may be placed on the college record, with credit being recorded immediately prior to graduation from college.

POLICE SCIENCE
ASSOCIATE IN APPLIED SCIENCE

Program Description:

A program that focuses on the criminal justice system, it's organizational components and processes, and it's legal and public policy contexts. Includes instruction in criminal law and policy, police and correctional systems regarding criminal justice issues.

The Police Science Degree is offered in cooperation with the West Virginia State Police and is located at the State Police Academy in Institute, West Virginia. This program is not designed for regular full-time or part-time students. Admission to this program is restricted to those accepted into the West Virginia State Police Cadet training corps. The State Police Academy currently serves the state of West Virginia as the only law enforcement training facility that has been approved by the Governor's Committee on Crime, Delinquency, and Correction to provide mandatory entry-level police training.

- The prospective student must be 21 years of age and meet the requirements of the State Police Academy.
- State Police personnel complete a 30-week residential program in which all degree coursework, with the exception of the internship, is completed.
- A field internship must be completed during the employee's probationary employment period before the degree is awarded.

Career Outlook:

The opportunity for public service through law enforcement work is attractive to many because the job is challenging and involves much personal responsibility. Furthermore, law enforcement officers in many agencies may retire with a pension after 25 or 30 years of service, allowing them to pursue a second career while still in their 40s or 50s. Because of relatively attractive salaries and benefits, the number of qualified candidates exceeds the number of job openings in federal law enforcement agencies and in most state police departments—resulting in increased hiring standards and selectivity by employers. Competition should remain keen for higher-paying jobs with state and federal agencies and police departments in more affluent areas. Opportunities will be better in local and special police departments, especially in departments that offer relatively low salaries, or in urban communities where the crime rate is relatively high. Applicants with college training in police science, military police experience, or both should have the best opportunities.

Salary Forecast:

West Virginia State Police Officers are set by rank and time in service. The current salary ranges are below:

Rank	Minimum	Maximum
Trooper	$28,122	$46,494
Senior Trooper	$38,482	$46,882
Trooper First Class	$39,070	$47,470
Corporal	$39,658	$48,058
Sergeant	$43,834	$52,234
First Sergeant	$45,922	$54,322
2nd Lieutenant	$48,010	$56,410
1st Lieutenant	$50,098	$58,498
Captain	$52,186	$60,586
Major	$54,274	$62,674
Lieutenant Colonel	$56,362	$64,762

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

POLICE SCIENCE

MAJOR CODE – CP20

FIRST YEAR

Police Science Training Component[1,2]				General Education Component			
EME	105	First on Scene	3	ENL	111	Written Communication	3
PST	111	Law Enforcement Orientation	3	COM	112	Oral Communication	3
PST	113	Police Defense Tactics	2	IT	101	Fundamentals of Computers (EDGE)	3
PST	120	Patrol Operations and Procedures	3	MAT	139	Mathematics for Political Science[4]	5
PST	122	Police Arsenal and Weapons	3	PST	242	Police Community Relations[5]	3
PST	231	Fundamentals of Criminal Law	3	PST	244	Intro to Criminalistics[4]	4
PST	233	Fundamentals of Criminal Investigation	3				
PST	235	Police Organization and Administration	3				
PST	237	Police Role in Crime and Delinquency	3				
PST	239	Criminal Evidence and Procedure	3				
PST	246	Police Records and Reports	3				
PST	248	Traffic Administration and Enforcement	3				
PST	290	Law Enforcement and Internship[3]	9				
TOTAL CREDITS			**44**	**TOTAL CREDITS**			**21**

HOURS REQUIRED FOR GRADUATION: 65

Employment Opportunities:

- West Virginia State Police
- Federal Bureau of Investigation
- Federal Marshal

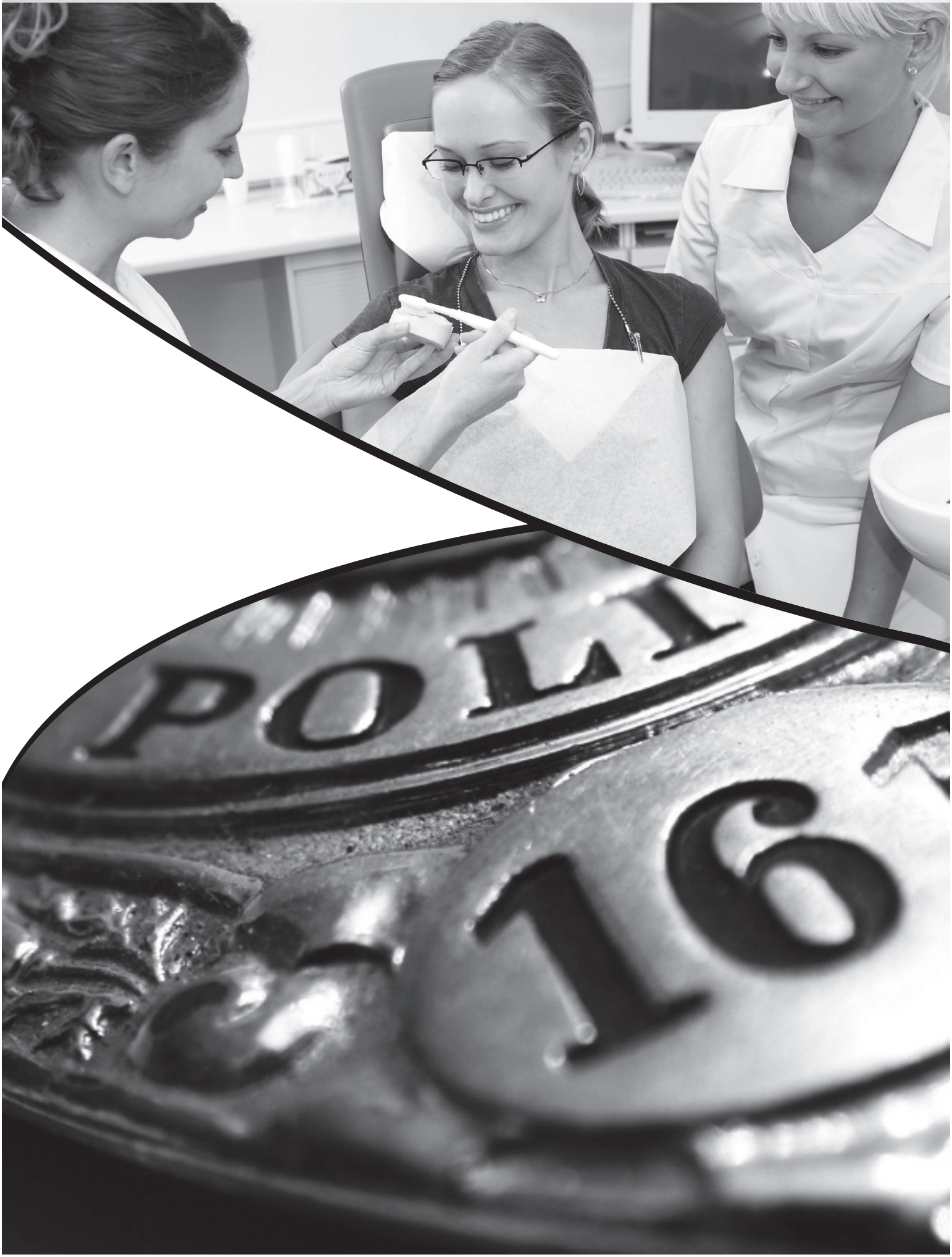
Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 525-1468 • E-mail: brown175@mctc.edu

1. Student must be accepted as a Cadet at West Virginia State Police Academy for program enrollment. Contact Personnel Director of West Virginia State Police at (304) 746-2117 or local State Police Detachment for program application information.
2. All courses are taught at West Virginia State Police Academy in Institute.
3. PST 290 has a requirement of instructor permission. Student must complete one year of full-time employment with the West Virginia State Police to fulfill course requirements.
4. MAT 139 and PST 244 fulfill degree requirements for Quantitative Skills/Science for General Education Core.
5. PST 242 fulfills degree requirement for Social Science General Education Core.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One-Year Certificates

ACCOUNTING/BOOKKEEPING

ADMINISTRATIVE TECHNOLOGY - MEDICAL TRANSCRIPTION

AGRICULTURAL SCIENCE

ALLIED HEALTH OCCUPATIONS

CERTIFIED CODING SPECIALIST

CLINICAL ASSISTANT

DEAF STUDIES

DENTAL LAB TECHNOLOGY

GRAPHIC DESIGN/COMMUNICATION

MACHINIST TECHNOLOGY

MARITIME TRAINING

MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE)

PARAMEDIC

POLICE SCIENCE

PUBLIC LIBRARY TECHNOLOGY

ACCOUNTING/BOOKKEEPING CERTIFICATE

Program Description:

The Accounting/Bookkeeping Certificate Program is designed to prepare students for entry-level positions in the accounting/bookkeeping field. The completion of the certificate program prepares students to work for CPA firms, corporate accounting departments, and small businesses. This would include clerical positions in specialized areas such as accounts payable, accounts receivable, and payroll, as well as any positions involved in the accounting functions of a business.

Students who successfully complete the certificate program will be able to demonstrate the following competencies:

- Identify and describe the fundamental principles and practices of accounting;
- Apply fundamental accounting principles and practices to prepare common income statements, balance sheets, and cash flow statements;
- Utilize microcomputer accounting software systems for the purpose of maintaining a general ledger, accounts receivable, accounts payable, and payroll;
- Identify, describe, and prepare a variety of tax records and reports necessary to maintain a business and to meet local, state, and federal requirements;
- Develop and analyze accounting information for managerial planning and control;
- Complete computer applications including word processing, spreadsheets, databases, electronic mail, and the Internet;
- Identify and apply the techniques of effective oral and written communication in a business setting;
- Perform business mathematical operations utilizing the calculator for computations.

Students who successfully complete the certificate program are eligible to transfer all of the 30 credit hours into the two-year Management Technology, Accounting Option, and Associate in Applied Science Degree Program.

Career Outlook:

Accounting paraprofessionals are qualified for numerous career opportunities such as accountant's assistants, accounting clerks, bookkeepers, banking support staff, finance support staff, and income tax preparation clerks. According to the Bureau of Labor Statistics, "The large size of this occupation ensures plentiful job openings, including many opportunities for temporary and part-time work."

Salary Forecast:

Salaries of financial clerks vary considerably. The region of the country, size of the city, and type and size of the establishment all influence salary levels. Also, the level of expertise required and the complexity and uniqueness of a clerk's responsibilities may affect earnings. Median hourly earnings of full-time financial clerks were as follows:

Procurement clerks	$14.85
Payroll and timekeeping clerks	$14.60
Bookkeeping, accounting, and auditing clerks	$13.72
Bill and account collectors	$13.20
Billing and posting clerks and machine operators	$13.00
Tellers	$10.15

(Information obtained from the Bureau of Labor Statistics, Occupational Outlook Handbook 2005-2006)

Admission Requirements:

The college adheres to an open admissions policy, which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

ACCOUNTING/BOOKKEEPING

MAJOR CODE – CA30

FIRST YEAR					
First Semester[1]			**Second Semester**		
AC	103	Introduction to Accounting (EDGE)	AC	201	Financial Accounting[2]
ENL	111	Written Communication	AC	221	Computerized Accounting[3]
IT	101	Fundamentals of Computers (EDGE)	AC	234	Taxation[2]
MAT	115	Business Mathematics	FN	231	Business Finance[2]
MG	101	Introduction to Business (EDGE)	IT	150	Applications to Spreadsheets[4] (EDGE)
		TOTAL CREDITS 15			**TOTAL CREDITS** 15
HOURS REQUIRED FOR GRADUATION: 30					

Employment Opportunities:

- Accountant's assistants
- Accounting clerk
- Bookkeeper

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Gerald Doyle • Corbly Hall, Room 322
Phone: (304) 696-3019 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: doyle@mctc.edu

1. The one-year certificate in Accounting/Bookkeeping will allow the student to apply 30 academic credits toward the A.A.S. degree in Management Technology - Accounting.
2. AC 201, AC 234 and FN 231 have a prerequisite of AC 103 or permission.
3. AC 221 has a prerequisite of IT 101 and AC 103, or permission.
4. IT 150 has a prerequisite of IT 101.

ADMINISTRATIVE TECHNOLOGY
MEDICAL TRANSCRIPTION - CERTIFICATE

Program Description:

The increasing healthcare demands of today's society have created the need for highly skilled medical transcriptionists who possess the knowledge and skills necessary to succeed in this demanding profession. The One-Year Certificate Program in Medical Transcription provides a strong foundation in anatomy/physiology, medical terminology, pharmacology, human diseases, laboratory and surgical procedures, preparation of medical documents, and medical transcription.

This intensive program utilizes authentic physician dictation to prepare students to transcribe a wide variety of dictation subjects including Cardiology, Dermatology, Endocrinology, Gastroenterology, Neurology, Obstetrics and Gynecology, Urology, Ophthalmology, Pulmonary Medicine, Orthopedics, Otorhinolaryngology, Hematology/Oncology/Immunology, Pathology, and Radiology. The student progresses from entry-level to hospital style dictation.

Upon completion of the One-Year Certificate Program in Medical Transcription, the graduate will be able to demonstrate knowledge that is specific to the medical transcription field and gain real-life experience through placement in a medical transcription internship.

Career Outlook:

Job opportunities will be good. Employment of medical transcriptionists is projected to grow faster than the average for all occupations through 2012. Demand for medical transcription services will be spurred by a growing and aging population. Older age groups receive proportionately greater numbers of medical tests, treatments, and procedures that require documentation. A high level of demand for transcription services also will be sustained by the continued need for electronic documentation that can be easily shared among providers, third-party payers, regulators, and consumers. Growing numbers of medical transcriptionists will be needed to amend patients' records, edit for grammar, and identify discrepancies in medical records. With experience, a transcriptionist may work from home (free lance or employed for an organization).

Salary Forecast:

Wage-and-salary medical transcriptionists had median hourly earnings of $14.40 in May 2006. The middle 50 percent earned between $12.17 and $17.06. The lowest 10 percent earned less than $10.22, and the highest 10 percent earned more than $20.15. Median hourly earnings in the industries employing the largest numbers of medical transcriptionists were:

Medical and diagnostic Laboratories	$15.68/hour
General medical and surgical hospitals	$14.62/hour
Business support services	$14.34/hour
Outpatient care centers	$14.31/hour
Offices of physicians'	$14.00/hour

Compensation methods for medical transcriptionists vary. Some are paid based on the number of hours they work or on the number of lines they transcribe. Others receive a base pay per hour with incentives for extra production. Employees of transcription services and independent contractors almost always receive production-based pay. Independent contractors earn more than do transcriptionists who work for others, but independent contractors have higher expenses than their corporate counterparts, receive no benefits, and may face higher risk of termination than do wage-and-salary transcriptionists.

Information obtained from Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2008-09 Edition, Secretaries and Administrative Assistants, on the Internet at http://www.bls.gov/oco/ocos151.htm (Visited January 18, 2008)

Admission Requirements:

Successful completion of entrance exams in grammar, spelling, and punctuation is required. A minimum keyboarding speed of 45 wpm is required. Applicants should possess basic word processing skills. Arrangements for exams may be made through the Advising Center at 696-3262.

ADMINISTRATIVE TECHNOLOGY
MEDICAL TRANSCRIPTION
MAJOR CODE – CM50

FIRST YEAR[1]	
First Semester[2]	**Second Semester[3]**
AAT 220 Anatomy & Physiology for Transcription. . .3	AAT 224 Adv. Laboratory Medicine for Transcription. .1
AAT 221 Medical Terminology for Transcription. . . 3	AAT 225 Human Diseases for Transcription. 3
AAT 222 Pharmacology for Transcription. 3	AAT 226 Surgical Procedures for Transcription . . . 1
AAT 223 Beg. Laboratory Medicine Transcription. . .1	AAT 245 Pathology Transcription. 2
AAT 224 Beginning Medical Transcription. 8	AAT 246 Radiology Transcription 2
	AAT 247 Gastroenterology Transcription 2
	AAT 248 Cardiology Transcription 2
	AAT 249 Orthopedics Transcription 2
	AAT 250 Medical Transcription Internship 1
TOTAL CREDITS. 18	**TOTAL CREDITS. 16**
HOURS REQUIRED FOR GRADUATION: 34	

Employment Opportunities:
- Physicians' offices
- Hospitals
- Medical schools
- Acute care facilities
- Physical therapy facilities
- Rehabilitation facilities
- Nursing homes
- Clinics
- Transcription companies
- Independent contractors
- Business support services
- Work from home

Contact Information:
Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

1. To be admitted to the program, students must take a series of entrance exams verifying above-average grammar, spelling, and punctuation skills; basic word processing skills; and a minimum keyboarding speed of 45 wpm. Students who have completed the one-year Medical Transcription certificate program may apply all of the 34 credit hours to the two-year Associate of Applied Science, Administrative Assistant Technology - Medical Transcription degree program.
2. First semester AAT courses have prerequisites of admission to the program and instructor permission. Please see an advisor for further information on program admission requirements.
3. Second semester AAT courses have prerequisites of successful completion (C or better) of first semester courses and instructor permission.

AGRICULTURAL SCIENCE CERTIFICATE

Program Description:

The Technical Studies Degree is designed to meet three major needs:

(1) To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree and/or One-Year Certificate for students in quality education and training programs;
(2) To increase the abilities of employees to use technology effectively and responsibly;
(3) To assist those employed in the workforce to understand that education is a life-long process.

Marshall Community & Technical College delivers educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

Components of the program include the following: general education, classroom instruction in a technical core and in the occupational area, and possible on-the-job training.

Technical Studies students must meet all normal admission and performance standards. Credits earned through either the approved apprenticeship programs or through industry-based education and training programs will not be added to the student's collegiate transcript until the student has completed twelve program credit hours from Marshall Community & Technical College and has obtained at least a 2.00 GPA.

The student who graduates with the One-Year Certificate Degree in Technical Studies will possess:

- Computer software skills
- Relevant essential math skills
- Written and oral communication skills

Career Outlook:

Advancement of agricultural workers depends on motivation and experience. Farm workers who work hard and quickly, have good communication skills, and take an interest in the business may advance to crew leader or other supervisory positions. Some agricultural workers may aspire to become farm, ranch, and other agricultural managers, or farmers or ranchers themselves. In addition, their knowledge of raising and harvesting produce may provide an excellent background for becoming purchasing agents and buyers of farm products. Knowledge of working a farm as a business can help agricultural workers become farm and home management advisors. Those who earn a college degree in agricultural science could become agricultural and food scientists.

Salary Forecast:

Median hourly earnings in May 2004 for each of the occupations found in this statement are as follows:

Agricultural inspectors	$14.92
Animal breeders	$13.55
Agricultural workers, all other	$10.15
Agricultural equipment operators	$8.88
Farm workers, farm, and ranch animal	$8.31
Graders and sorters, agricultural products	$7.90
Farm workers and laborers, crop, nursery, and greenhouse	$7.70

AGRICULTURAL SCIENCE

MAJOR CODE - CT10 • CONCENTRATION CODE - CT13

FIRST YEAR[1]

COMPONENT I - General Education[1]

ENL	111	Written Communication	3
IT	101	Fundamental of Computers[1] (EDGE)	3
MAT	150	Applied Professional Mathematics[2]	3
MG	101	Introduction to Business[1] (EDGE)	3
SS		Interpersonal Relations/Social Science	3
		TOTAL CREDITS	**15**

COMPONENT II - Technical/Occupational Specialty[4] (20 CREDIT HOURS)
Note: Core and Option Courses Required

Common Core Courses
Agricultural and Natural Resources I (EDGE)
Agricultural and Natural Resources II (EDGE)

Agriscience & Agricult. Production Systems Focus:
Agriscience 11 (EDGE)
Agriscience 12 (EDGE)

Agricultural Mechanics Option:
Agricultural Mechanics I (EDGE)
Agricultural Mechanics II (EDGE)

Animal Science Focus:
Animal Processing (EDGE)
Food Science and Processing (EDGE)

Plant Systems Focus:
Greenhouse Technology (EDGE)
Horticulture (EDGE)

HOURS REQUIRED FOR GRADUATION: 35

Employment Opportunities:

- Nurseries
- Farms
- Feed & seed stores
- Butcher shops
- Forestry

Vocational Site Partnership:

In addition, Marshall Community & Technical College (MCTC) offers a One-Year Certificate Program and an Associate of Applied Science in Technical Studies in conjunction with its Vocational Site Partnerships in Cabell, Mason, Putnam, and Wayne counties through EDGE.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Sumeeta Patnaik • MCTC, Room 115
Phone: (304) 696-3025 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: patnaik1@mctc.edu

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1. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
2. Six total Quantitative Skills/Laboratory Science/Experience credits are required. At least one college-level mathematics course must be selected from: MAT 115, MAT 145, or MAT 150. Students may complete the six-credit requirement with a second college-level mathematics course or select from the following: SCI 101, SCI 120 or SCI 201.MAT 145 may be substituted for MAT 150.
3. Select from SS 201, SS 210, or SS 215.

ALLIED HEALTH OCCUPATIONS CERTIFICATE

Program Description:

The Health Occupations Certificate program is a unique opportunity for students holding a national certification in a professional field to build on that experience and earn a certificate. This often allows students greater flexibility in their chosen field of study and opportunities for advancement in their jobs. Health Occupations Certificate graduates have a wide range of career options within the health science industries. Graduates work in education sale services, Federal, State and local governments, or pharmaceutical and medical careers. The Health Occupations Certificate includes a minimum of 18 general education credits and 12 credit hours of allied health credits.

Career Outlook:

According to the United States Department of Labor, the employment projection on the average for all Health Occupations professions is expected to grow as fast as other occupations. However, selective specialties within this field are expected to grow faster.

Salary Forecast:

Hourly wage for Health Science Technicians averages from $8.00 to $35.00/hour with benefits depending on certification.

(Information obtained from the Occupational Outlook Handbook, 2008-2009)

Admission Requirements:

- MCTC is an open enrollment institution. Please contact Student Services Division at (304) 696-6282 for specific admission requirements.
- Applicants must complete all general education and prerequisite courses with a grade of “C” or better, and must have a cumulative GPA of 2.0 or higher.

ALLIED HEALTH OCCUPATIONS

MAJOR CODE – CA70

FIRST YEAR[1]	
First Semester[2]	**Second Semester**
ENL 111 Written Communications. 3	AH 220 Nutrition[2]. 3
AH 151 Medical Terminology 3	COM 112 Oral Communication 3
MAT 145 Application in Algebra 3	AH 216 Pharmacalogy[3]. 3
BIOL 257 Intro. to Anatomy & Physiology. 3	SS 201 Human Relations. 3
IT 101 Fundamentals of Computers (EDGE) . . .3	BIOL 210 Microbiology[4]. 3
TOTAL CREDITS. 15	**TOTAL CREDITS. 15**
HOURS REQUIRED FOR GRADUATION: 30	

Employment Opportunities:

- Dental labs
- Private dental offices
- Dental schools
- Dental labs that manufacture prosthetic materials

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Dr. Adam Swolsky • Cabell Hall, Room 303
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolsky@mctc.edu
or Jesse Smith • Putnam County Technical Center • Phone: (304) 586-3494 ext. 213

CERTIFIED CODING SPECIALIST CERTIFICATE

Program Description:

The Certified Coding Specialist (CCS) serves as a qualified technician in analyzing and classifying medical data. Using universally recognized coding systems (ICD-9-CM and CPT-4), the CCS assigns codes to diagnoses, injuries and procedures found in the records of patients. The codes are then reported to insurance companies or government agencies for payment/reimbursement of patients' health expenses, medical statistics and research.

This program will enable the student to become familiar with the coding systems, medical terminology and medical background of anatomy and diseases which will give the student a basis on which to build. Students will also have the opportunity to complete a directed practice of 120 hours in a healthcare setting. This course will prepare students to sit for the CCS exam administered by the American Health Information Association. Please refer to their Website at www.ahima.org for further qualifications for taking the national certification test for the CCS.

Career Outlook:

Job prospects should be very good. Employment of medical records technicians is expected to grow much faster than the average for all occupations through 2012, due to rapid growth in the number of medical tests, treatments, and procedures that will be increasingly scrutinized by third-party payers, regulators, courts, and consumers.

Salary Forecast:

Median annual earnings of medical records technicians were $25,590 in 2004. The middle 50 percent earned between $20,650 and $32,990. The lowest 10 percent earned less than $17,720 and the highest 10 percent earned more than $41,760. Median annual earnings in the industries employing the largest numbers of medical records and health information technicians in 2004 were as follows:

General medical and surgical hospitals	$26,640
Nursing care facilities	$26,330
Outpatient care centers	$23,870
Physicians' offices	$22,130

Program Admission Requirements:

Students seeking admission into the Certified Coding Specialist program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information.

Career Description:

Certified Coding Specialists are professionals skilled in classifying medical data from patient records, generally in the hospital setting. These coding practitioners review patients' records and assign numeric codes for each diagnosis and procedure. To perform this task, they must possess expertise in the ICD-9-CM coding system and the surgery section within the CPT coding system. In addition, the CCS is knowledgeable of medical terminology, disease processes, and pharmacology.

Hospitals or medical providers report coded data to insurance companies or the government, in the case of Medicare and Medicaid recipients, for reimbursement of their expenses. Researchers and public health officials also use coded medical data to monitor patterns and explore new interventions. Coding accuracy is thus highly important to healthcare organizations because of its impact on revenues and describing health outcomes. Accordingly, the CCS credential demonstrates tested data quality and integrity skills in a coding practitioner. The CCS certification exam assesses mastery or proficiency in coding rather than entry-level skills.

Individuals may also contact the American Health Information Association at (312) 787-2672 or www.ahima.org

CERTIFIED CODING SPECIALIST

MAJOR CODE - CC20

FIRST YEAR[1]	
First Semester	**Second Semester**
AH 151 Medical Terminology (EDGE) 3	AH 205 Principles of Disease[2] 4
ENL 111 Written Communication 3	AH 216 Basic Pharmacology[3] 3
HIT 203 Introduction to Coding 4	HIT 204 Advanced Coding Concepts[4]. 4
BIOL 257 Intro to Anatomy & Physiology[1] (EDGE). . .3	MAT 150 Applied Professional Mathematics[5]. 3
TOTAL CREDITS. 13	**TOTAL CREDITS. 14**
Third Semester (Summer)	
HIT 215 Directed Practice 2	
HIT 220 Coding for CCS Exam 3	
TOTAL CREDITS. 5	
HOURS REQUIRED FOR GRADUATION: 32	

Employment Opportunities:

- Acute care facilities
- Ambulatory care facilities
- Rehabilitation centers
- Physicians' offices
- State and local health departments
- Insurance companies
- Professional billing companies

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Janet B. Smith • Cabell Hall, Room 205
Phone: (304) 696-3048 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: smithjan@mctc.edu

1. Students who plan to ladder into the A.A.S. in Health Information Program would take BIOL 260 in place of BIOL 257.
2. AH 205 has a prerequisite of BIOL 257.
3. AH 216 has a prerequisite of HIT 151.
4. HIT 204 has a prerequisite of HIT 203.
5. IT 101 may be substituted for MAT 150.

CLINICAL ASSISTANT CERTIFICATE

Program Description:

Clinical Assistants (CA) are multi-skilled clinical laboratory professionals competent to perform waived and low-to-moderate complexity laboratory testing. As a critical component of the health care team, the clinical laboratory is responsible for approximately 90% of the information physician's use to detect, diagnose, and treat medical conditions and infectious disease. Typically, Clinical Assistants work under the supervision of a Medical Laboratory Technician or Medical Technologist.

The multi-faceted role of the Clinical Assistant includes collection of blood and non-blood specimens, preparation of blood and body fluid specimens for laboratory analysis, as well as laboratory testing in the areas of chemistry, hematology, microbiology, urinalysis, immunology, and blood product screening/component processing. Clinical Assistants perform laboratory testing using low-to-moderately complex automated instruments for specimen analysis, and routinely use Laboratory Information Systems for ordering tests and result documentation. The Clinical Assistant is capable of comparing laboratory test results to normal reference ranges, as well as recognizing abnormal laboratory test results and their relationship to common disease states. Strict adherence to safe laboratory practice and infection control policies is an essential element of this profession. A successful Clinical Assistant must be detail-oriented, possess excellent customer service skills, and be capable of prioritizing tasks in a manner to maintain workflow and productivity.

The A.A.S. Clinical Assistant Degree includes a total of 63 credit hours, of which 24 credit hours focus specifically on the field of laboratory medicine. Successful completion of the CA Program will include a clinical internship at an affiliated health-care facility. Many states require licensure in order to perform laboratory testing. The West Virginia Office of Laboratory Services (WVOLS) currently requires licensure of all laboratorians performing moderate-complexity laboratory testing. Upon completion of the Clinical Assistant Program, graduates will be eligible for WV state licensure as a Clinical Laboratory Practitioner-Point of Care Technician, with appropriate documentation as required by WVOLS.

Career Outlook:

Opportunities for job placement in the field of laboratory medicine are excellent. At present, the number of jobs currently available exceeds the number of qualified applicants. With steady population growth and implementation of new laboratory tests, employment is expected to grow faster than the average for all other occupations through the year 2014. With the rapid growth of point of care testing, employment opportunities in physician's offices and other ambulatory health care facilities will dramatically increase over the next five to ten years.

Salary Forecast:

Clinical Assistants working in a hospital setting earn an average of $12-15/hour with full healthcare benefits, retirement, and possible tuition and relocation reimbursement. For those working in phlebotomy positions, the 2003 median hourly wages were as follows: hospitals=$11.13/hour; physician office laboratories or private clinics=$10.50/hour.

(Information obtained from the Occupational Outlook Handbook 2006-2007)

Admission Requirements:

Students seeking admission into the Clinical Assistant program must arrange an appointment with the program faculty prior to submitting the application packet. This is to ensure that students receive current information regarding the program admission requirements and the criteria for selection. Application packets are available at the Allied Health and Life Sciences Division, Cabell Hall Room 304 or call (304) 696-6270 for more information. The Clinical Assistant program is a limited enrollment program. Program admission for fall will be granted during the preceding may.

CLINICAL ASSISTANT

MAJOR CODE – CH60

FIRST YEAR[1]

First Semester				Second Semester			
AH	151	Medical Terminology (EDGE)	3	AH	207	Infection Control for Health Professionals[2]	4
BIOL	257	Intro to Anatomy & Physiology	3	CLA	203	Urinalysis & Specimen Collection[4]	2
MAT	145	Applications in Algebra[1]	3	CLA	206	Intro to Physician Office Lab[6]	2
CLA	201	Laboratory Safety, Ethics , and Law	2	CLA	299	Clinical Assistant/POCT Internship[7]	4
CLA	202	Laboratory Calculations[3]	2				
CLA	204	Intro to Point of Care Testing[4]	4				
CLA	205	Intro to Automated Instrumentation[5]	2				
TOTAL CREDITS			**19**	**TOTAL CREDITS**			**12**

HOURS REQUIRED FOR GRADUATION: 33

Employment Opportunities:

- Hospitals
- Health Care Clinics
- Physician's Office laboratories
- Blood Donation/Collection Centers
- Reference Laboratories
- Medical Research Laboratories

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Pam Meadows, MT (ASCP) • Cabell Hall, Room 302
Phone: (304) 696-3749 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: meadow63@mctc.edu

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1. MAT 145 has a prerequisite of ACT 19, MAT 097, or PLAC 100.
2. AH 207 has a prerequisite of AH 151.
3. CLA 202 has a prerequisite of MAT 145.
4. CLA 203 has a prerequisite of BIOL 257 or SCI 260.
5. CLA 205 has a prerequisite of BIOL 257, SCI 260, or SCI 265.
6. CLA 206 has a prerequisite of BIOL 257, SCI 260, or SCI 265.
7. CLA 299 requires completion of all previous CLA coursework with a minimum grade of "C", admission to CA/POCT Program, and permission of program coordinator.

* In order to graduate from the A.A.S. CA Program, students must maintain a minimum grade of "C" or better in all CLA courses. Should a student receive a "D" or "F" in any of the CLA courses, they will be allowed to repeat the course one time before dismissal from the program.
** The cost of tuberculosis testing, vaccinations, and background checks are the responsibility of the student.
*** Students are responsible for room and board, as well as transportation during clinical internship

DEAF STUDIES CERTIFICATE

Program Description:

This program is designed to give students a foundation in American Sign Language (ASL) and to acquaint them with basic issues of concern to the Deaf community. Furthermore, the program offers an opportunity to individuals already working in the Deaf community to increase their understanding of ASL and Deaf culture in order to strengthen their knowledge and their communication skills.

Upon completion of the One-Year Certificate Program in Deaf Studies, the graduate will be able to:

- Effectively communicate with Deaf persons in informal settings in teaching, human services, or health care;
- Enhance their credentials for employment opportunities which do not require interpreter certification but do assign value to skills in ASL and knowledge of Deaf culture;
- Earn the academic qualifications for entry into advanced studies at universities offering sign language programs;

Salary Forecast:

Salaried interpreters and translators had median hourly earnings of $17.10 in May 2006. The middle 50 percent earned between $12.94 and $22.60. The lowest 10 percent earned less than $9.88, and the highest 10 percent earned more than $30.91.

(Information obtained from the Occupational Outlook Handbook, 2008-2009)

Additional Information:

Other individuals that can benefit from this program are parents of DHH children and young hearing children, early childhood teachers and child care providers, teachers, paraprofessionals, speech/language pathologists, counselors, interpreters, and medical professionals.

DEAF STUDIES

MAJOR CODE – CA60

FIRST YEAR	
First Semester	**Second Semester**
ASL 101 American Sign Language I. 3	ASL 102 American Sign Language II[1]. 3
ASL 105 American Deaf Community. 3	ASL 103 ASL Fingerspelling. 3
ASL 220 Resources for the Deaf Community 3	ASL 110 American Deaf Culture. 3
COL 101 New Student Seminar - CTC 1	ASL 205 American Deaf Community History[2]. 3
ENL 111 Written Communication I. 3	ASL 210 Deaf People in American History[3]. 3
IT 101 Fundamentals of Computers. 3	
TOTAL CREDITS. 16	**TOTAL CREDITS. 15**
HOURS REQUIRED FOR GRADUATION: 31	

Employment Opportunities:

- Seek employment with an early intervention program that serves Deaf and Hard of Hearing children.
- A background in ASL and Deaf Studies will be useful in absolutely any field of employment.

Contact Information:

Leigh-Ann Brewer • Hodges Hall, Room 108
Phone: (304) 696-3752 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brewer13@mctc.edu

1. ASL 102 has a prerequisite of ASL 101.
2. ASL 205 has a prerequisite of ASL 105.
3. ASL 210 has prerequisites of ASL 105, ASL 110 and ASL 205 – but can be taken with ASL 110 and ASL 205.

DENTAL LABORATORY TECHNOLOGY

Program Description:
One year of training at the Putnam Career and Technical Center (PCTC) and thirty-one hours credit at Marshall Community & Technical College will result in an Associate in Applied Science degree in Dental Laboratory Technology. Students will follow the Putnam County school calendar while completing the Dental Laboratory Technology courses, and attend the PCTC every day from 8:30 a.m.-3:00 p.m. during the technical portion of the program.

Career Outlook:
Employment should increase slowly, as the public's improving dental health requires fewer dentures but more bridges and crowns. However, the employment is favorable because employers have difficulty filling training positions. The employment outlook is very good if the employees are willing to relocate.

Salary Forecast:
Median hourly earnings of dental laboratory technicians were $14.93 in May 2004. The middle 50 percent earned between $11.18 and $19.71 an hour. The lowest 10 percent earned less than $8.86, and the highest 10 percent earned more than $25.48 an hour. Median hourly earnings of dental laboratory technicians in May 2004 were $15.95 in offices of dentists and $14.40 in medical equipment and supplies manufacturing.

Dental technicians in large laboratories tend to specialize in a few procedures and, therefore, tend to be paid a lower wage than those employed in small laboratories that perform a variety of tasks.

Program Admission Requirements:
The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis

Career Description:
Dental Laboratory Technicians make and repair dental appliances such as dentures, crowns, and braces. Specializations are available in various aspects of the work prescribed by dentists and orthodontists: Crown and Bridge Technicians, Metal Dental Technicians, Partial Denture Technicians, Dental Ceramists and Orthodontic Technicians. Most dental laboratory technicians work in commercial dental laboratories employing 2 to 20 people. Employment opportunities are available in private dental offices, dental schools, hospitals, and companies that manufacture dental prosthetic materials.

DENTAL LABORATORY TECHNOLOGY

MAJOR CODE – CD20

FIRST YEAR[1]	
First Semester[2] DLT 101 Intro to Dental Technology[3] (EDGE). . . . . .6 (1st 9 weeks) DLT 104 Complete Dentures (EDGE) . . . . . .9 (2nd 9 weeks) **TOTAL CREDITS. 15**	**Second Semester** DLT 108 Partial Dentures (EDGE) . . . . . .9 (1st 9 weeks) DLT 112 Inlays/Crowns/Bridges/Ceramics(EDGE).10 (2nd 9 weeks) DLT 116 Clinical Experience[4] (EDGE) . . . . . .1 (2nd 9 weeks) **TOTAL CREDITS. 20**
In addition to the Dental Laboratory Technology curriculum, the following General Education requirements must be met: ENL 111 Written Communication . . . . . .3 IT 101 Fundamentals of Computers (EDGE) . . .3 MG 101 Introduction to Business (EDGE) . . . . . .3 SCI 120 Basics in Physical Science . . . . . .4 **TOTAL CREDITS. 13**	
HOURS REQUIRED FOR GRADUATION: 48	

Employment Opportunities:

- Dental labs
- Private dental offices
- Dental schools
- Dental labs that manufacture prosthetic materials

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Jean Chappell • Cabell Hall, Room 209
Phone: (304) 696-4645 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: chappel2@mctc.edu
or
Jesse Smith • Putnam County Technical Center • Phone: (304) 586-3494 ext. 213

1. Dental Laboratory Technology courses are delivered at Putnam County Technical Center at Eleanor.
2. All first semester Dental Laboratory Technology courses must be completed with a “C” or better before student can register for second semester coursework.
3. DLT 101 has a prerequisite of admission to the Dental Laboratory Technology Program.
4. DLT 116 has a prerequisite of DLT 101, DLT 104, DLT 108 and co-requisite of DLT 112.

GRAPHIC DESIGN/GRAPHIC COMMUNICATION CERTIFICATE

Program Description:

The Technical Studies Degree is designed to meet three major needs:

(1) To provide for cooperatively sponsored educational opportunities leading to the Associate in Applied Science degree and/or One-Year certificate for students in quality education and training programs;
(2) To increase the abilities of employees to use technology effectively and responsibly;
(3) To assist those employed in the workforce to understand that education is a lifelong process.

Marshall Community & Technical College delivers educational programs in a variety of occupational fields to businesses and industries having an immediate need for such programs.

Components of the program include the following: general education, classroom instruction in a technical core and in the occupational area, and possible on-the-job training.

Technical Studies students must meet all normal admission and performance standards. Credits earned through either the approved apprenticeship programs or through industry-based education and training programs will not be added to the student's collegiate transcript until the student has completed twelve program credit hours from Marshall Community & Technical College and has obtained at least a 2.00 GPA. The student who graduates with the Associate in Applied Science Degree in Technical Studies will possess:

- Supervisory skills
- Computer software skills
- Relevant essential math skills
- Written and oral communication skills

Admission Requirements:

The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

GRAPHIC DESIGN/GRAPHIC COMMUNICATION

MAJOR CODE – CT10 • CONCENTRATION CODE CT14

FIRST YEAR	
COMPONENT I - General Education[1] ENL 111 Written Communication (EDGE). . . . . .3 MAT 150 Applied Professional Mathematics[2] . . . . .3 **TOTAL CREDITS. 6**	**COMPONENT II -** **Technical/Occupational Specialty** **Note: Core and Focus Courses Required** **Common Core Courses** Fundamentals of Graphic Design and Production **TOTAL CREDITS. 2**
Graphic Design Focus: Basic Illustration (EDGE) Illustration (EDGE) Graphic Design (EDGE) **or** **Graphic Communication Focus:** Basic Darkroom Procedures (EDGE) Image Assembly and Plate making (EDGE) Offset Press and Bindery Operations (EDGE)	**COMPONENT III -** **Technical/Occupational Specialty** Maximum of 960 contact hours of on-the-job training is required for the Technical Studies Certificate. A letter from the employer verifying the total number of contact hours experienced on the job by the student will be placed on the college record. This credit will be recorded immediately prior to awarding the certificate. **TOTAL CREDITS. 6**
HOURS REQUIRED FOR GRADUATION: 32	

Employment Opportunities:

- Print shops
- Advertising Agencies

Vocational Site Partnerships:

In addition, Marshall Community & Technical College (MCTC) offers a One-Year Certificate Program and an Associate of Applied Science in Technical Studies in conjunction with its Vocational Site Partnerships at Technical Centers in Cabell, Mason, Putnam and Wayne counties through EDGE.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Sumeeta Patnaik • MCTC, Room 115
Phone: (304) 696-3024 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: patnaik1@mctc.edu

1. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
2. MAT 145 may be substituted for MAT 150.
3. Verification of completion of CTE classes with a score of 74% or better on the final exam must be forwarded to West Virginia Community and Technical College System in Charleston, by course instructor.

MACHINIST TECHNOLOGY CERTIFICATE

Program Description:

The Machinist Technology Program at the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) is an industry-driven, hands-on program that prepares individuals to meet the rigorous demands of the manufacturing sector. An element of the RCBI program enables students to earn a certificate degree in Technical Studies by completing additional course work through Marshall Community & Technical College.

Participants in the Machinist Technology Program receive technical skills training to work in industrial machining. Course work includes manual machine operation and technical support, introductory CNC (computer-numerical-control) machine operation and technical support, oral communications and organizational skills, mathematics for machinists, and safety issues.

Working closely with an 11-member industry-based advisory board, RCBI designed the program's core technical components so they meet the manufacturing sector's needs.

Comprehensive full- and part-time programs are available, thus enabling current workforce members to improve their technical skills and develop professionally while helping their employers become more competitive.

Career Outlook:

Despite projected slower-than-average employment growth, job opportunities for machinists should continue to be excellent. The number of workers obtaining the skills and knowledge necessary to fill machinist jobs is expected to be less than the number of job openings arising each year from employment growth and from the need to replace experienced machinists who transfer to other occupations or retire.

Salary Forecast:

Median hourly earnings of machinists were $16.33 in 2004. The middle 50 percent earned between $12.84 and $20.33. The lowest 10 percent earned less than $10.08, while the top 10 percent earned more than $24.34. Median hourly earnings in the manufacturing industries employing the largest number of machinists in 2004 were:

Metalworking machinery manufacturing	$17.06
Machine shops; turned product; and screw, nut, and bolt manufacturing	$15.87
Motor vehicle parts manufacturing	$17.46
Employment services	$11.09

Admission Requirements:

The Machinist Technology Program has admission and candidacy requirements in addition to the Marshall Community & Technical College admission guidelines.

Tech Prep Affiliation:

The Machinist Technology Program is aligned with the West Virginia Tech Prep Engineering/Technical Cluster.

MACHINIST TECHNOLOGY

MAJOR CODE – CT10 • CONCENTRATION CODE – CT

FIRST YEAR	
First Semester (Fall) RCBI[1,3]	**Second Semester**
MAT 135 Math for Machinist Technology (EDGE). .6	COM 112 Oral Communication 3
MT 105 Industrial Safety (EDGE). 2	MT 215 Metalworking Theory & Application[2]. 12
MT 121 Intro to Machinery[2] (EDGE). 4	MT 223 Advanced Technical Specialization. 6
MT 205 Precision Measurement (EDGE). 3	
TOTAL CREDITS. 15	**TOTAL CREDITS. 21**
HOURS REQUIRED FOR GRADUATION: 36	

Employment Opportunities:

Entry-level positions for which graduates will compete include:

- Manual machinist
- CNC machinist
- Industrial sales representative
- Auto plant employee
- Machine shop employee
- Fabricator

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Ed Black, Instructor
(304) 781-1690 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: eblack@rcbi.org

1. RCBI Machinist Courses will be completed as a block at RCBI sties in Huntington, WV and Bridgeport, WV.
2. MIT 121 and MT 215 have a prerequisite of instructor permission.
3. Course work may be applied toward AAS in Technical Studies: Machinist Technology.

MARITIME TRAINING CERTIFICATE

Program Description:

The Maritime Training in Technical Studies program provides training to career-oriented individuals interested in obtaining a One-Year certificate in inland marine-related subjects. Individuals typically start out as deckhands and can progress to positions of greater responsibility based upon experience and meeting U.S. Coast Guard regulated licensing requirements. Deckhands are responsible for rigging barges, maintaining barges once underway, and performing routine maintenance on towboats and barges.

Career Outlook:

The job outlook is expected to remain competitive for jobs in water transportation occupations. Increased river traffic (expected to grow 1.1% per year along the Ohio River through the year 2060) plus an aging workforce will provide opportunities for employment to both entry-level and tenured workers.

Salary Forecast:

The following annual pay and benefits information was provided by the inland marine industry:

Master	$90,000
Pilot	$70,000
Mate	$36,000
Engineer	$45,000
Tankerman	$41,000
Deckhand	$25,000

Salaries may vary depending on location, experience, and amount of education. Workers can also expect to receive varying amounts of production and safety bonuses and cost-share medical benefits. The annual pay and benefits vary by company. Please note that inland marine workers typically work only 8 months out of the year.

Career Description:

The maritime worker is responsible for movement of huge amounts of cargo, as well as passengers, within the nation. The barge and towing industry provides:

- Extended time-off to its workers. When working, they are usually on duty for 6-hour periods, 24 hours a day, for up to 21 days. After each completed work schedule on board a towboat, workers have several days off at a stretch totaling as much as 6 months of time off annually;
- The flexibility to live where they want. Towboat crews often live several hundred miles from the waterways where they work. This flexibility means workers can live near their family and friends and still be able to meet the boat when it is time to head back to work;
- The opportunity for a stable, well-paid career with unlimited potential to move up to positions of greater responsibility in a dynamic industry and drug-free environment.

Maritime workers operate and maintain tugboats, dredges, excursion vessels and various waterborne craft on the Great Lakes, rivers and canals, and other waterways in harbors. After 18 months of actual deckhand experience, individuals can attend U.S. Coast Guard-approved license training that leads to a license as a Master of Towing Vessels.

MARITIME TRAINING

MAJOR CODE – CT10 • CONCENTRATION CODE – CT11

FIRST YEAR[1]

COMPONENT I - General Education[2]

ENL	111	Written Communication[3]	3
IT	101	Fundamentals of Computers (EDGE)	3
MAT	150	Applied Professional Mathematics	3
SS	201	Human Relations	3
		TOTAL CREDITS	**12**

COMPONENT II - Technical Core

ENL	235	Leadership Development Studies[4]	3
EC	102	Basic Economics	3
EME	105	First on Scene	3
MG	101	Introduction to Business (EDGE)	3
MT	105	Industrial Safety	2
		Deckhand Training[1]	3
		Fire Training School[5]	1
		TOTAL CREDITS	**13**

COMPONENT III - Technical Occupational Specialty

Maximum of 960 contact hours of on-the-job training (OJT) can be earned for the Technical Studies One-Year Certificate. A letter from the employer verifying the total number of contact hours experienced on the job by the student will be placed on the college record. This credit will be recorded immediately prior to awarding the certificate.

TOTAL CREDITS. 6

HOURS REQUIRED FOR GRADUATION: 31

Employment Opportunities:

- Deckhand
- Tankerman
- Engineer
- Mate
- Pilot
- Master

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 696-3366 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brown175@mctc.edu

1. Must provide a certificate of completion of Deckhand Training Class or present a letter from employer confirming six (6) months employment as a deckhand.
2. Students must complete a minimum of 3 credit hours with Marshall Community & Technical College to establish academic residency.
3. Fulfills MCTC General Education and State Communication Skills requirement for Technical Studies One-Year certificate.
4. ENL 235 has a perquisite of ENL 111 or COM 111.
5. Must provide a certificate of completion of MCTC Fire Training School or provide proof of equivalency.

MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE) CERTIFICATE

Program Description:

As a leading Microsoft IT Academy, Marshall Community & Technical College offers the Microsoft Certified Systems Engineer One-Year Certificate option in order to help prepare students for the Microsoft Certified Systems Engineer (MCSE) Certification examinations. The curriculum and course materials are designed by Microsoft, and the College's instructors are Microsoft Certified Trainers (MCT) with industry experience who takes a personal interest in mentoring students through every step of the certification process.

Career Outlook:

- The U.S. Department of Labor-Bureau of Labor Statistics states that computer-related jobs (IT) hold numerous positions within the Top 20 Fastest Growing Occupations in the country. Additionally, IT jobs are reported to have the highest earning of any of the occupations in the list.
- Computer occupations are expected to be some of the fastest growing in the U.S. economy and will account for 5 out of the 20 fastest growing occupations through 2015. Employment growth will be driven by the increasing reliance of businesses on information technology and the continuing importance of maintaining system and network security. In addition to high-growth rates, computer and healthcare occupations combined will add more than 1.5 million new jobs. High-growth rates among computer occupations reflect projected rapid growth in the computer and data processing industries.
- Management, scientific and technical consulting services will grow very rapidly, by 55.4%, spurred by the increased use of new technology and the growing complexity of business.

Salary Forecast:

Although salaries vary a great deal, reflecting differences in skill, experience, and amount of education, the salaries for the job titles in the following table reflect HR reported data as of January 2007 for Huntington, West Virginia.

Job Title	10th %	Median	90th %
LAN Support I	$34,609	$44,683	$54,757
LAN Support II	$40,527	$52,630	$64,733
LAN Support III	$49,715	$66,789	$83,863
Network Administrator I	$34,026	$43,828	$53,630
Network Administrator II	$41,639	$53,351	$65,063
Network Administrator III	$47,609	$62,872	$78,134
Network Administrator IV	$54,694	$71,227	$87,760
Network Administrator V	$64,276	$81,494	$98,711
Network Engineer I	$37,706	$54,617	$71,528
Network Engineer II	$48,212	$63,034	$77,855
Network Engineer III	$58,073	$75,374	$92,655
Network Security Systems Manager	$44,231	$79,047	$113,862

Career Description:

The Microsoft Certified Systems Engineer (MCSE) credential is the premier certification for Information Technology professionals who analyze business requirements and design and implement the infrastructure for business solutions, based on the Microsoft Windows platform and Microsoft Enterprise Server software. It is one of the most widely recognized and sought after technical certifications in the industry–demonstrating to employers, clients, and colleagues that an individual has achieved expertise in the area of Information Technology.

MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE)

MAJOR CODE – CM60

FIRST YEAR[1]

COMPONENT I - General Education[2]				COMPONENT II - Technical Core			
IT	150	Applications to Spreadsheets (EDGE)	3	ENL	111	Written Communication	3
IT	210	Network Administrations[3,8]	3	IT	219	Networking Administration V[5,6]	3
IT	211	Networking Administration II[3]	3	IT	222	Networking Administration VI[5,6]	3
IT	216	Networking Administration III[3]	3	IT	223	Networking Administration VIII[5,6]	3
IT	217	Networking Administration IV[3]	3	IT	276	Computer Maintenance[4,7] (EDGE)	3
IT	270	Computer Repair[4] (EDGE)	3	MAT	145	Applications in Algebra	3
		TOTAL CREDITS	**18**			**TOTAL CREDITS**	**18**

HOURS REQUIRED FOR GRADUATION: 36

Employment Opportunities:

- Network administrator
- Network engineer
- Systems support technician
- Network designer
- Network security systems designer

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Dr. Randall Jones • Corbly Hall, Room 314
Phone: (304) 696-3059 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: jonesr@mctc.edu

Patrick Smith • Corbly Hall, Room 309
Phone: (304) 696-4633 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: smith288@mctc.edu

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1. The one-year certificate in the Microsoft Certified Systems Engineer will allow the student to apply 36 academic credits toward the Information Technology A.A.S. degree in Network Administration
2. Students are expected to have basic knowledge of computers including operating systems such as Windows XP or 2003 and Microsoft Office XP or 2003 before entering this program. The student must register for IT 101 during his or her first semester or successfully pass a challenge exam for IT 101.
3. Networking Administration classes IT 210, IT 211, IT 216 and IT 217 must be taken concurrently. These classes cannot be taken individually.
4. IT 270 and IT 276 prepare students for A+ Certification tests.
5. Networking Administration classes IT 219, IT 222 and IT 223 must be taken concurrently. These classes cannot be taken individually.
6. IT 219, IT 222, and IT 223 have a prerequisite of IT 217.
7. IT 276 has a prerequisite of IT 270.
8. IT 210 has a prerequisite of IT 270 and IT 276 or permission.

PARAMEDIC SCIENCE CERTIFICATE

Program Description:

The Emergency Medical Technician-Paramedic (EMT - Paramedic) is a specialist in the pre-hospital care of the sick and injured. This person bridges the gap between the emergency room physician and the critical patient in the out-of-hospital setting. Paramedics provide emergency medical treatment and stabilization, rescue of persons entrapped in life-threatening situations, transportation of critical patients to specialized treatment facilities, support and assistance to fire and law enforcement agencies, and public education and safety training to target populations.

The student completing the One-Year Certificate Program in Paramedic Science will have completed an intense 12-month long program of 49 credit hours. This program is designed for individuals involved in both career and volunteer aspects of the Emergency Medical Services realm. The program consists of classroom lectures, practical labs and approximately 400 hours of clinical internships, as well as EMS courses specifically designed for EMS professionals. Students will be eligible to sit for the National Registry of Emergency Medical Technicians Paramedic Examination after the successful completion of the Paramedic Science Program only if the student has maintained a letter grade of "C" or higher in all Paramedic Science courses and earned credit "CR" for all Paramedic Clinical courses. Students must have earned a letter grade of "C" or better in all PAR or EME courses and a "CR" in clinical courses to be eligible for registration in following semester EME or PAR courses.

Career Outlook:

Employment of emergency medical technicians and paramedics is expected to grow faster than the average for all occupations through 2012. Population growth and urbanization will increase the demand for full-time paid EMTs and Paramedics rather than for volunteers. In addition, a large segment of the population—the aging baby boomers—will further spur demand for EMT services as they become more likely to have medical emergencies. There will still be demand for part-time, volunteer EMTs and paramedics in rural areas and smaller metropolitan areas. In addition to those arising from job growth, openings will occur because of replacement needs.

Salary Forecast:

Earnings of EMTs and paramedics depend on the employment setting and geographic location as well as the individual's training and experience. Median annual earnings of EMTs and paramedics were $31,980 in May 2008. The middle 50 percent earned between $23,140 and $38,030. The lowest 10 percent earned less than $18,880, and the highest 10 percent earned more than $49,440. Median annual earnings in the industries employing the largest numbers of EMTs and paramedics in May 2008 were:

Local government	$35,916
General medical and surgical hospitals	$32,710
Other ambulatory health care services	$28,960

(Information obtained from the Bureau of Labor Statistics, *Occupational Outlook Handbook 2008-2009*)

Admission Requirements:

- Current CPR Certification
- Current Emergency Medical Technician – Basic Certification

PARAMEDIC SCIENCE

MAJOR CODE – CP40

FIRST YEAR[5,6]	
First Semester[1,2,3]	**Second Semester**
EME 130 Introduction to EMS Systems. 3	PAR 220 Cardiovascular Emergencies 4
PAR 210 Patient Assessment & Airways. 2	PAR 221 OB/GY/Neonatal/Pediatric Emergencies . . 2
PAR 211 Principles of Trauma Management. 2	PAR 230 Pre-Hospital Care Considerations. 2
PAR 212 Pre-Hospital Pharmacology. 2	PAR 231 Medical Emergencies 4
PAR 241 Advanced Paramedic Skill Lab I. 3	PAR 242 Advanced Paramedic Skills Lab II. 3
PAR 251 Paramedic Clinical I[4]. 3	PAR 252 Paramedic Clinical II[4]. 3
BIOL 260 Applied Human Anatomy. 4	
TOTAL CREDITS. 19	**TOTAL CREDITS. 18**
Third Semester	
PAR 125 Rescue Operations. 3	
IT 101 Fundamentals of Computers (EDGE). . . .3	
PAR 243 Advanced Paramedic Skills Lab III. 3	
PAR 253 Paramedic Clinical III[4]. 3	
TOTAL CREDITS. 12	
HOURS REQUIRED FOR GRADUATION: 49	

Employment Opportunities:

- Hospitals
- Emergency medical service providers
- Private corporations
- Governmental agencies
- Aero-medical flight services
- Industry

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Edward Bays • Cabell Hall, Room 211
Phone: (304) 696-4870 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: bays@mctc.edu

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1. Students must be EMT-B certified and maintain EMT-B certification as prerequisite for admission to and continuation in the program. See program advisor for information on application to the Paramedic Science AAS Program.
2. Students move through paramedic coursework in sequence, beginning with the First Semester (Fall) coursework.
3. Students must receive a letter grade of “C” or higher in “PAR” courses to be eligible to graduate from the program.
4. Clinical Grades will be given on a Credit/Non-Credit basis. Students must earn a credit grade in all “PAR” clinical courses to be eligible to graduate from the program.
5. Students who at anytime during the program earn a letter grade below “C” in “PAR” courses, or receive a non-credit in “PAR” clinical courses will be dismissed from the program.
6. Students who are dismissed from the program may reapply the next time the program begins.

POLICE SCIENCE CERTIFICATE

Program Description:

The Police Science Degree is offered in cooperation with the West Virginia State Police and is located at the State Police Academy in Institute, West Virginia. This program is not designed for regular full-time or part-time students. Admission to this program is restricted to those accepted into the West Virginia State Police Cadet training corps. The State Police Academy currently serves the state of West Virginia as the only law enforcement training facility that has been approved by the Governor's Committee on Crime, Delinquency, and Correction to provide mandatory entry-level police training.

- The prospective student must be 21 years of age and meet the requirements of the State Police Academy.
- State police personnel complete a 30-week residential program in which all degree coursework, with the exception of the internship, is completed.
- A field internship must be completed during the employee's probationary employment period before the degree is awarded.

Career Outlook:

The opportunity for public service through law enforcement work is attractive to many because the job is challenging and involves much personal responsibility. Furthermore, law enforcement officers in many agencies may retire with a pension after 25 or 30 years of service, allowing them to pursue a second career while still in their 40s or 50s. Because of relatively attractive salaries and benefits, the number of qualified candidates exceeds the number of job openings in Federal law enforcement agencies and in most state police departments—resulting in increased hiring standards and selectivity by employers. Competition should remain keen for higher paying jobs with state and federal agencies and police departments in more affluent areas. Opportunities will be better in local and special police departments, especially in departments that offer relatively low salaries, or in urban communities where the crime rate is relatively high. Applicants with college training in police science, military police experience, or both should have the best opportunities.

Salary Forecast:

West Virginia State Police Officers are set by rank and time in service. The current salary ranges are below:

Rank	Minimum	Maximum
Trooper	$28,122	$46,494
Senior Trooper	$38,482	$46,882
Trooper First Class	$39,070	$47,470
Corporal	$39,658	$48,058
Sergeant	$43,834	$52,234
First Sergeant	$45,922	$54,322
2nd Lieutenant	$48,010	$56,410
1st Lieutenant	$50,098	$58,498
Captain	$52,186	$60,586
Major	$54,274	$62,674
Lieutenant Colonel	$56,362	$64,762

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis

POLICE SCIENCE

MAJOR CODE – CP60

FIRST YEAR					
First Semester[1,2]			**Second Semester**		
ENL	111	Written Communication. 3	MAT	139	Mathematics for Police 5
PST	111	Law Enforcement Orientation. 3	IT	101	Fund. of Computer Technology (EDGE). . . 3
PST	231	Fundamentals of Criminal Law. 3	PST	242	Police Community Relations. 3
PST	233	Fundamentals of Criminal. 3	PST	244	Introduction to Criminalistics 4
PST	239	Criminal Evidence and Procedure. 3	PST	248	Traffic Administration & Enforcement. 3
		TOTAL CREDITS. 15			**TOTAL CREDITS. 18**
HOURS REQUIRED FOR GRADUATION: 33					

Employment Opportunities:

- West Virginia State Police
- Federal Bureau of Investigation
- Federal Marshal

Contact Information:

Steven Brown • Latta's Building
Phone: (304) 525-1468 • E-mail: brown175@mctc.edu

1. Student must be accepted as a Cadet at West Virginia State Police Academy for program enrollment. Contact Personnel Director of West Virginia State Police at (304) 746-2117 or local State Police Detachment for program application information.
2. Course work may be applied toward A.A.S. in Police Science

PUBLIC LIBRARY TECHNOLOGY CERTIFICATE

Program Description:

In conjunction with the West Virginia Library Commission and the Marshall University Libraries, a 33 credit-hour certificate program is now available. The Public Library Technology program consists of six library courses and five general studies courses. All courses for this program will be available on-line. Through this program, students can obtain a certificate that enables them to be competitive in the public library market in West Virginia. Upon completion of the certificate program, the student will be half-way through completing an Associate in Applied Science degree.

Career Outlook:

Currently, there are over 170 public libraries in West Virginia; many are staffed by individuals who do not possess an Associate's or Bachelor's degree. According to the West Virginia Occupational Projections, annually there are 18 new openings and 34 replacement openings for library assistants, and 7 new openings and 16 replacement openings for library technicians. The Public Library Technology certificate will offer critical training for individuals currently employed in the field. Monica Brooks, Associate Dean of the Marshall University Libraries, stated "Encouraging the library employees all over the state to further their education is one of our many goals. We also want to build a better workforce and provide educational offerings that are convenient and applicable to their daily work duties. Additionally, we may even entice some non-library folks to get into a wonderful career that has many opportunities for personal and professional growth." Phyllis White-Sellards, Library Technical Assistant II, in the Marshall University Drinko Library said, "Some of these classes will be beneficial to our positions here at Marshall. They can help us keep current with changing technology and library trends."

Salary Forecast:

Median annual earnings of library technicians in May 2004 were $24,940. The middle 50 percent earned between $18,640 and $32,600. The lowest 10 percent earned less than $14,760, and the highest 10 percent earned more than $40,730. Salaries of library technicians in the Federal Government averaged $39,647 in 2005. Median annual earnings in the industries employing the largest numbers of library technicians in May 2004 were as follows:

Colleges, universities, and professional schools	$28,940
Local government	$23,560
Other information services	$22,550
Elementary and secondary schools	$22,510

Admission Requirements:

The college adheres to an open admissions policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

PUBLIC LIBRARY TECHNOLOGY

MAJOR CODE – CL20

FIRST YEAR					
First Semester[1]			**Second Semester**		
ENL	111	Written Communication. 3	COM	112	Oral Communications 3
IT	101	Fundamentals of Computers (EDGE). . . .3	PLT	210	Public Library Cataloging. 3
MAT	115	Business Mathematics. 3	PLT	250	Public Library Technology. 3
PLT	220	Public Library Children's and Young Adult Services. . . .3	PST	260	Public Library Adult Services 3
PST	230	Public Library Reference. 3	SS	201	Human Relations. 3
PLT	240	Public Library Organization and Administration. 3			
		TOTAL CREDITS. 18			**TOTAL CREDITS. 15**
HOURS REQUIRED FOR GRADUATION: 33					

Employment Opportunities:

- Library assistants
- Library technicians

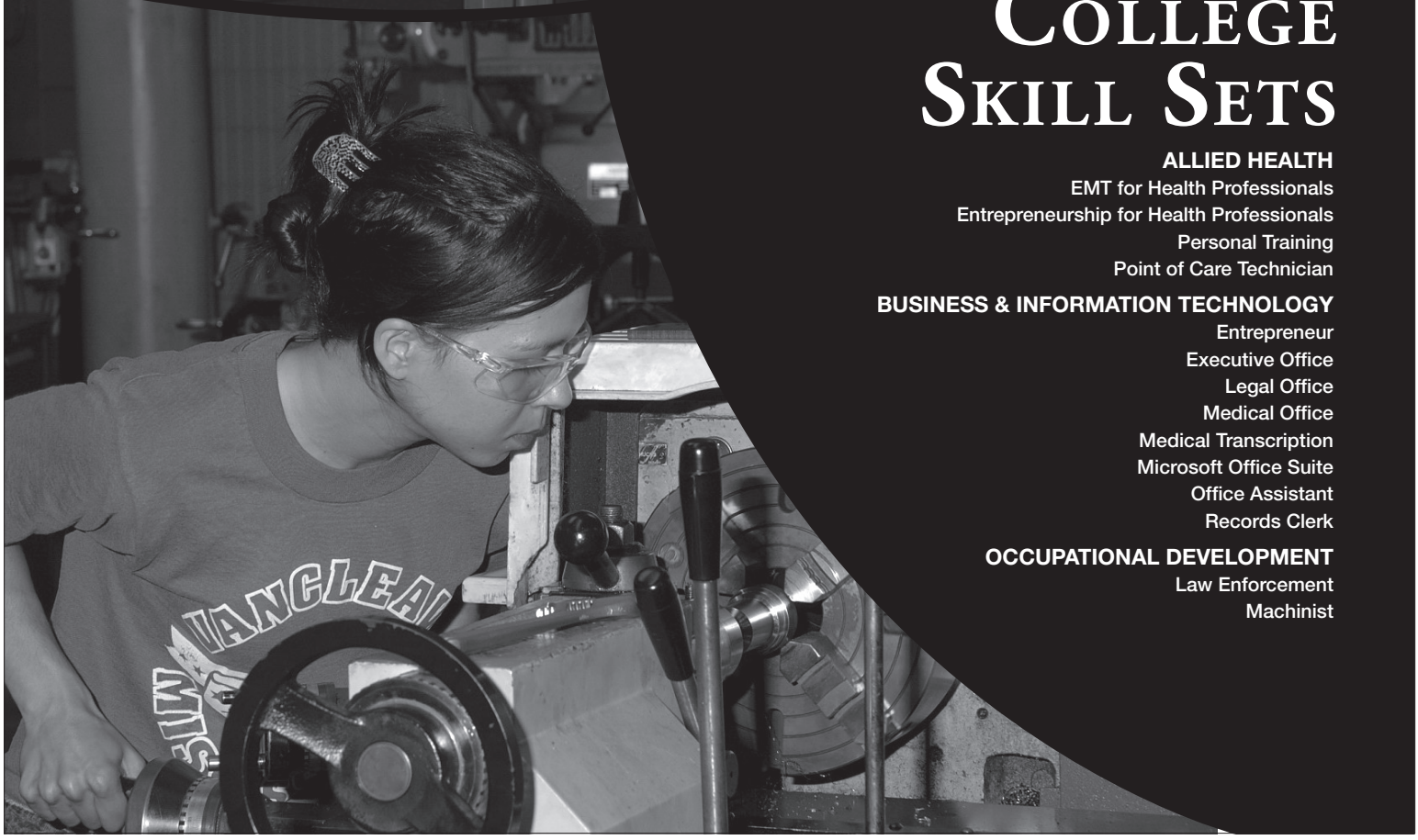
Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Kelli Johnson • Drinko Library, Circulation
Phone: (304) 696-6220 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: johnson28@mctc.edu

1. The complete PLT certificate may be obtained online.



College Skill Sets

ALLIED HEALTH

EMT for Health Professionals
Entrepreneurship for Health Professionals
Personal Training
Point of Care Technician

BUSINESS & INFORMATION TECHNOLOGY

Entrepreneur
Executive Office
Legal Office
Medical Office
Medical Transcription
Microsoft Office Suite
Office Assistant
Records Clerk

OCCUPATIONAL DEVELOPMENT

Law Enforcement
Machinist

ALLIED HEALTH SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AH	151	Medical Terminology (EDGE)	3
BIOL	257	Introduction to Anatomy & Physiology[2] (EDGE)	3-8
ENL	111	Written Communication	3
IT	101	Fundamentals of Computers (EDGE)	3
MAT	145	Applications in Algebra[1]	3
		TOTAL HOURS REQUIRED	**15-20**

Individuals who complete the above required courses will receive a Certificate of Successful Completion in Allied Health.

1. MAT 150 may be substituted for MAT 145.
2. BIOL 260 and BIOL may be substituted for BIOL 257.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Dr. Adam C. Swolsky • Cabell Hall, Room 303
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolsky@mctc.edu

ALLIED HEALTH
EMT FOR HEALTH PROFESSIONALS SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
EME	109	Emergency Medical Technician	6
BIOL	109L	Emergency Medical Technician Lab**	1
		TOTAL HOURS REQUIRED	**7**

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Individuals who successfully complete the above required courses will be eligible for the National Registry of EMT's Basic Exam.

Contact Information:

Edward Bays • Cabell Hall, Room 211
Phone: (304) 696-4870 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: bays@mctc.edu

ALLIED HEALTH
PERSONAL TRAINING SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AH	151	Medical Terminology (EDGE)	3
AH	217	Personal Fitness Training	4
SCI	257	Introduction to Anatomy & Physiology	3
EME	105	First on Scene	3
		TOTAL HOURS REQUIRED	**13**

Individuals who complete the above required courses will receive a Certificate of Successful Completion in Personal Training. National certification as a personal trainer may be obtained through national accrediting agencies.

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Dr. Adam C. Swolsky • Cabell Hall, Room 303
Phone: (304) 696-3750 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: swolskyl@mctc.edu

ALLIED HEALTH
POINT OF CARE TECHNICIAN SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
BIOL	257	Introduction to Anatomy/Physiology	3
CLA	200	Phlebotomy[4]	2
CLA	201	Laboratory Safety, Ethic and Law	2
CLA	203	Urinalysis and Specimen Processing[1]	2
CLA	204	Introduction to Point of Care Testing	4
CLA	205	Introduction to Automated Instrumentation[2]	2
CLA	206	Introduction to Physician Office Lab[3]	2
		TOTAL HOURS REQUIRED	**17**

1. CLA 203 has prerequisites of BIOL 257 or BIOL 260
2. CLA 205 has prerequisites of BIOL 257 or BIOL 260 and BIOL 265
3. CLA 206 has prerequisites of BIOL 257 or BIOL 260 and BIOL 265
4. CLA 200 has prerequisites of BIOL 257 or BIOL 2605

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Contact Information:
Pam Meadows • Cabell Hall, Room 302
Phone: (304) 696-3749 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: pam.meadows@mctc.edu

BUSINESS & INFORMATION TECHNOLOGY ENTREPRENEUR SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AC	103	Introduction to Accounting (EDGE)	3
LAS	110	Business Organization to Government Regulations	3
MG	101	Introduction to Business (EDGE)	3
MK	130	Fundamentals of Marketing	3
		Entrepreneur Elective (from list below)	3
		TOTAL HOURS REQUIRED	**15**

ENTREPRENEUR ELECTIVE		
AAT	104	Records Management
AAT	265	Administrative Office Procedures (PR: AAT 136)
IT	212	Publishing on the Internet (PR: IT 107)
IT	242	Advanced Internet (PR: IT 212)
IT	270	Computer Repair (PR: IT 101 or IT 101E)
IT	276	Computer Maintenance (PR: IT 270)
MG	181	Retailing (PR: MG 101)
MG	202	Business Organization & Management

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Gerald Doyle • Corbly Hall, Room 322
Phone: (304) 696-3019 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: doyle@mctc.edu

BUSINESS & INFORMATION TECHNOLOGY EXECUTIVE OFFICE SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AAT	265	Legal Terminology and Transcription	3
ENL	231	Technical Report Writing	3
MG	101	Intro to Business (EDGE)	3
MG	202	Business Organization & Management	3
		TOTAL HOURS REQUIRED	**12**

The Executive Office Skill Set is of value to office workers who need executive office skills for cross-training and/or to increase employment opportunities. Upon completion of the courses, students should notify Billie Brooks, Dean of Student Services • (304) 696-3262.

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

BUSINESS & INFORMATION TECHNOLOGY
LEGAL OFFICE SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AAT	242	Legal Terminology and Transcription	3
LAS	101	General Law I	3
LAS	102	General Law II	3
LAS	213	Computer Applications to the Law Office	3
		TOTAL HOURS REQUIRED	**12**

The Legal Office Skill Set is of value to office workers who need legal office skills for cross-training and/or to increase employment opportunities.

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Contact Information:
Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

BUSINESS & INFORMATION TECHNOLOGY
MEDICAL OFFICE SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AAT	253	Medical Transcription	3
AAT	265	Administrative Office Procedures (EDGE)	3
AH	151	Medical Terminology (EDGE)	3
BIOL	257	Introduction to Anatomy & Physiology (EDGE)	3
LAS	248	Medical Law	3
		TOTAL HOURS REQUIRED	**15**

The Medical Office Skill Set is of value to office workers who need medical office skills for cross-training and/or to increase employment opportunities.

Upon completion of the courses, students should notify Billie Brooks, Dean of Student Services • (304) 696-3262.

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

BUSINESS & INFORMATION TECHNOLOGY MEDICAL TRANSCRIPTION SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AAT	114	Keyboarding II	3
AAT	136	Comprehensive Word Processing	3
AAT	253	Medical Transcription[1]	3
AH	151	Medical Terminology (EDGE)[2]	3
BIOL	257	Introduction to Anatomy & Physiology (EDGE)[3]	3
		TOTAL HOURS REQUIRED	**15**

The Medical Office Skill Set is of value to office workers who need medical office skills for cross-training and/or to increase employment opportunities.

Students admitted to the Medical Transcription program may substitute
1. AAT 244 Beginning Medical Transcription
2. AAT 221 Medical Terminology for Transcription
3. AAT 220 Anatomy & Physiology for Transcription

Upon completion of the courses, students should notify Billie Brooks, Dean of Student Services • (304) 696-3262.

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

BUSINESS & INFORMATION TECHNOLOGY MICROSOFT OFFICE SUITE SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AAT	104	Records Management (Access)[1]	3
AAT	136	Comprehensive Word Processing (Word) (EDGE)	3
AAT	160	Introduction to Presentation Graphics (PowerPoint) (EDGE)	3
IT	150	Applications to Spreadsheets (Excel)	3
AAT	261	Integrated Document Formatting (Integration of all applications)	3
		TOTAL HOURS REQUIRED	**15**

Individuals who complete the above required courses will receive a Certificate of Successful Completion.
1. Participants may substitute AAT 105, Computerized Database Management, for the AAT 104 requirement.

Earn a Degree and Graduate Early (EDGE):
This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:
Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

BUSINESS & INFORMATION TECHNOLOGY OFFICE ASSISTANT SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AAT	136	Comprehensive Word Processing (EDGE)	3
AAT	160	Introduction to Presentation Graphics (EDGE)	3
AAT	265	Administrative Office Procedures (EDGE)	3
IT	150	Applications to Spreadsheets (EDGE)	3
MG	101	Introduction to Business (EDGE)	3
		TOTAL HOURS REQUIRED	**15**

This Office Assistant Skill Set offers students participating in the EDGE initiative the opportunity to complete a skill set that provides entry-level job skills.

Upon completion of the courses, students should notify Billie Brooks, Dean of Student Services • (304) 696-3262.

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

BUSINESS & INFORMATION TECHNOLOGY RECORDS CLERK SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
AAT	104	Records Management	3
AC	108	Accounting for Business	3
IT	150	Applications to Spreadsheets (EDGE)	3
MAT	115	Business Mathematics	3
		TOTAL HOURS REQUIRED	**12**

This Records Clerk Skill Set is of value to office workers who need record keeping skills for cross-training and/or to increase employment opportunities.

Upon completion of the courses, students should notify Billie Brooks, Dean of Student Services • (304) 696-3262.

Individuals who complete the above required courses will receive a Certificate of Successful Completion from MCTC.

Earn a Degree and Graduate Early (EDGE):

This program provides students the opportunity to receive credit for their high school EDGE courses.

Contact Information:

Wylma Skean • Corbly Hall, Room 323
Phone: (304) 696-3060 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: skean@mctc.edu

LAW ENFORCEMENT SKILL SET

CERTIFICATE REQUIREMENT			CREDIT HOURS
PST	111	Law Enforcement Orientation)	3
PST	122	Police Arsenal and Weapons	3
PST	231	Fundamentals of Criminal Law	3
PST	233	Fundamentals of Criminal Investigation	3
PST	239	Criminal Evidence and Procedure	3
PST	244	Introduction to Criminalistics	3
PST	248	Traffic Administration and Enforcement	3
		TOTAL HOURS REQUIRED	**21**

This Law Enforcement Skill Set is only available to basic cadets enrolled at the West Virginia State Police Academy. Individuals who complete the above required courses will receive a certificate of successful completion.

Contact Information:

Steve Brown • Latta's Building
Phone: (304) 696-3366 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brown175@mctc.edu

TECHNICAL STUDIES
MACHINIST SKILL SET

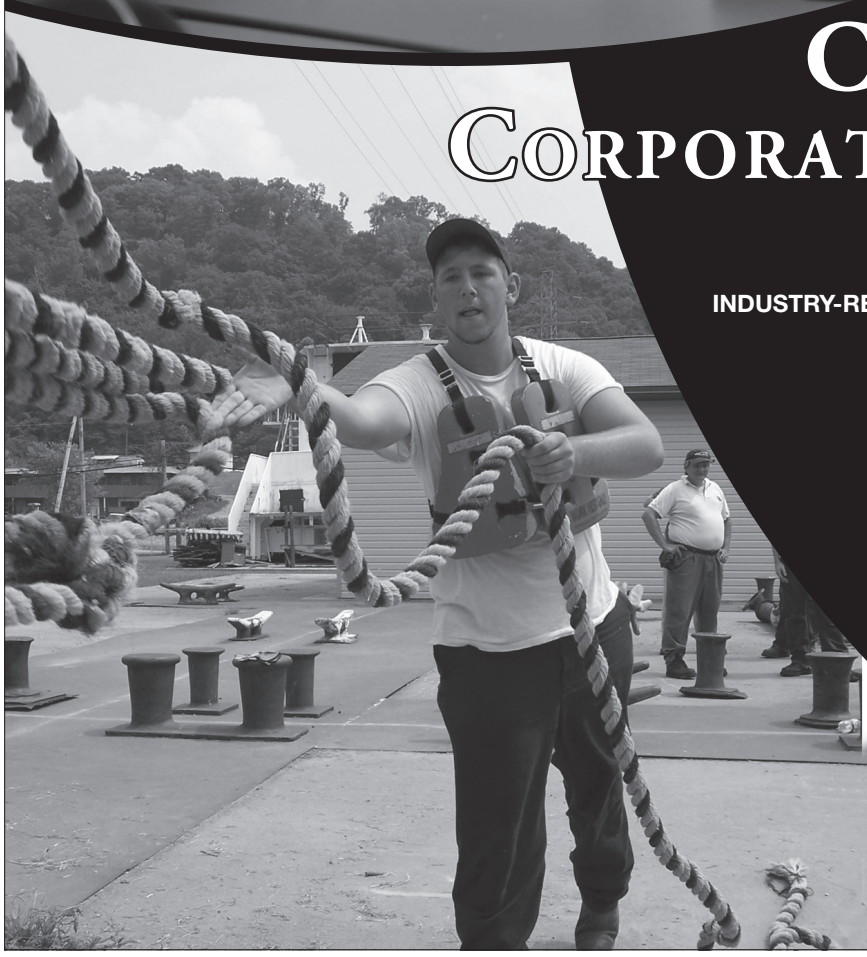
CERTIFICATE REQUIREMENT			CREDIT HOURS
MT	105	Industrial Safety	2
MT	121	Introduction to Machinery	4
MT	200	Blueprint Reading	3
MT	205	Precision Measurement	3
MT	215	Metalworking Theory & Application	12
MT	223	Advanced Technical Specialization	6
MT	233	NIMS Credentialing	6
		TOTAL HOURS REQUIRED	**36**

The above skill set courses are taken as a block by Robert C. Byrd Institute machinist students during a school year. After completion of these courses students will have earned their National Institute Metalworking Skill Level I (NIMS I) certification.

Contact Information:

Steve Brown • Latta's Building
Phone: (304) 696-3366 or 1-866-N-ROLLED (1-866-676-5533) • E-mail: brown175@mctc.edu

Continuing & Corporate Education



OVERVIEW

CAPSTONE & CUSTOMIZED TRAINING

INDUSTRY-RECOGNIZED SKILL SET TRAINING & CERTIFICATES

CONTINUING & COMMUNITY EDUCATION

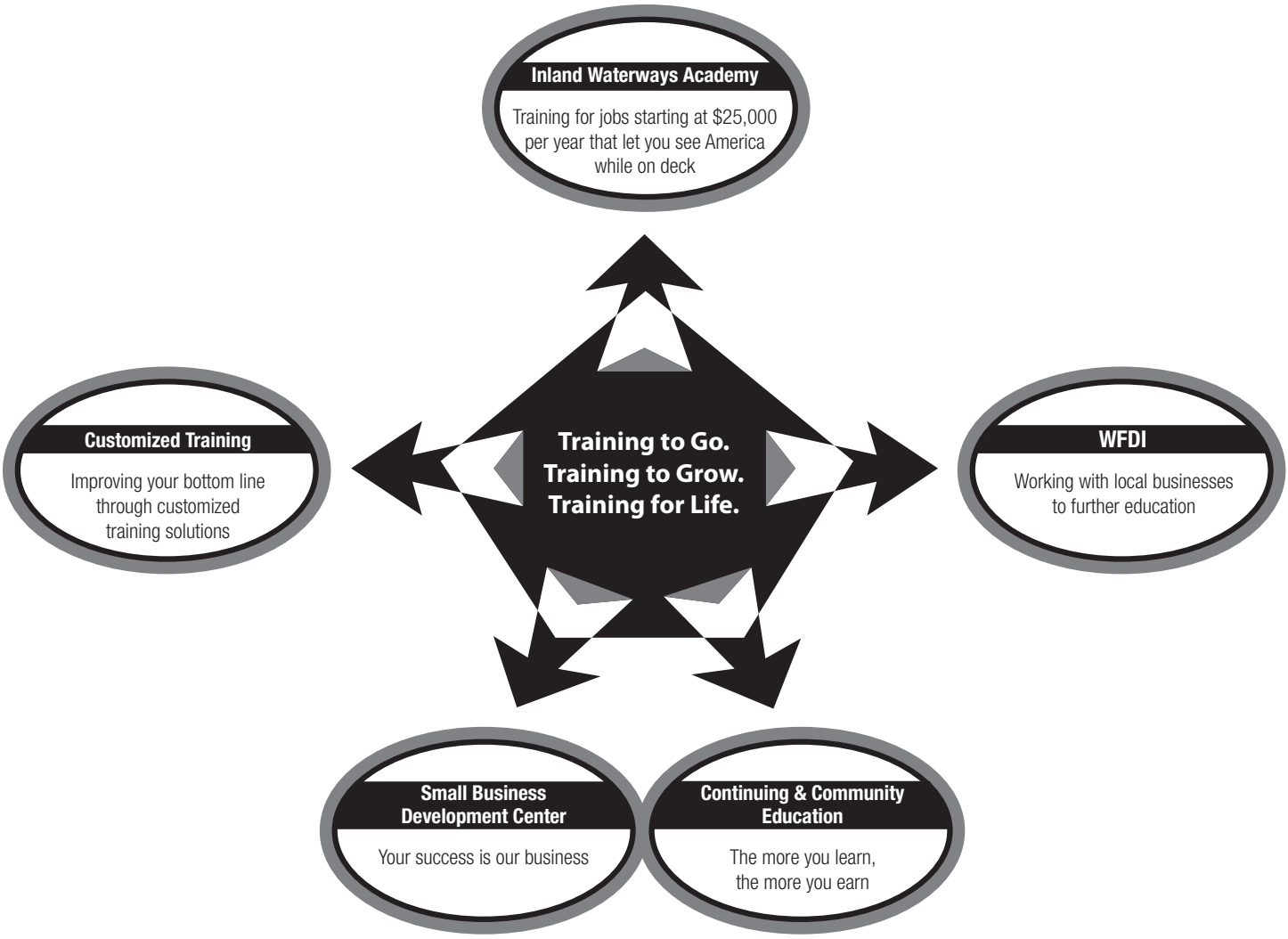
INLAND WATERWAYS ACADEMY

SMALL BUSINESS DEVELOPMENT CENTER

DIVISION OF CONTINUING & CORPORATE EDUCATION

Community & Corporate Education offers a wide range of short-term, non-credit, skills training that can provide you or your family members with opportunities for professional development and personal enrichment. Call (304) 525-1466 for more information on these and other training programs offered through the Division of Community & Corporate Education at Marshall Community & Technical College. Or visit www.mctc.edu for more information on current course schedules, costs, or a complete listing of professional development and personal enrichment classes.

GET YOUR CAREER MOVING WITH SKILL SET TRAINING THROUGH CONTINUING & CORPORATE EDUCATION



CONTINUING & CORPORATE EDUCATION

DIVISION OF CONTINUING & CORPORATE EDUCATION OVERVIEW

Marshall Community & Technical College is the training provider of choice for professional development, industry-recognized training solutions, and personal enrichment.

The Division of Continuing & Corporate Education at Marshall Community & Technical College connects businesses and workforce professionals to traditional and nontraditional training solutions that meet the continual change in economic conditions, technology, government mandates, and community needs.

Customized Training

The Division of Continuing & Corporate Education provides customized training to business and industry. It proactively assists business in identifying organizational goals, training needs, and appropriate solutions to keep pace with changes. The Division also provides added value by assisting businesses in the identification of collaboration and grant opportunities through its involvement in local, statewide and national organizations dedicated to economic and workforce development.

Staff of the Division of Continuing & Corporate Education design training programs that meet the specific working environment skill sets and knowledge needed by entrepreneurs, industry, agencies or professional organizations. The Division provides research capability, technical assistance, training and linkage to other resources and funding as needed. Services include assessment of training needs, identification of organizational goals, gaps that can be corrected by training, prioritization of training needs, delivery and evaluation of training. Cost-effective training is provided by Marshall Community & Technical College staff or contracted training specialists at a time and place convenient to the customer.

Additional business services resources include:

- The **Small Business Development Center** at Marshall Community & Technical College promotes economic development through a program of practical, interrelated services, providing assistance to existing small businesses and the emerging entrepreneur.
- The Division of Workforce Development is an active member of the **Region 2 Business Service Team** that identifies existing state and local agency resources that meet the needs of business, and creates the linkage to that asset.
- Linkages to **Distance Education** are available from a number of resources connected to Marshall Community & Technical College.
- **Industry Consortiums** are facilitated by the Division of Continuing & Corporate Education to identify and solve the business needs for the emerging workforce and current employees.

For more information call (304) 525-1466 or visit: www.mctc.edu.

Industry-Recognized Skill Set Training and Certifications

The rapidly changing demands placed on business require continuous improvement and training to stay current and competitive in a global economy. The Division of Continuing & Corporate Education insures quality training by developing and implementing training solutions that meet local, state and national certification requirements of industry and government agencies. The following specific skill set training, preparatory classes, testing and assessments prepare individuals for occupational licensures and certifications required by local, state and national government agencies and industry.

Inland Waterways Academy – The Inland Waterways Academy provides 20 plus U.S. Coast Guard-approved licensure-training programs for the inland maritime industry.

West Virginia Fast Track Jobs Programs – The Division of Workforce Development Fast Track Jobs Programs that meet the requirements for 90 days or less training that leads to immediate, direct employment in industry. The programs are:

- Marine Industry Technology Deckhand Training
- Bank Teller Program
- Medical Billing and Coding Program

Other training programs can be developed as needed.

Preparatory Classes - Preparatory classes are taught at multiple locations for ACT, SAT, LSAT, GRE and other special personal and professional tests.

CONTINUING & COMMUNITY EDUCATION

The driving forces in today's ever-changing economy are information and technology. These forces are so dominant and the advancements so continuous that "lifelong learning" has become a requirement for continued employment, qualifying for promotions or just for personal enrichment. The Continuing Education Program offers a wide range of instructor-led professional development and enrichment workshops, classes and seminars at convenient times. Continuing education classes are offered at the Huntington, Mason County, Teays Valley and Charleston campuses and are formatted as short courses, seminars, conferences, and workshops. The Division staff facilitates the identification of desired performance levels expected of professionals in the workforce. Division partners with highly qualified instructors that implement training solutions that improve individual performance. Many of the professional development courses include earning credit toward one-year Certificate, two-year Associate Degrees or Continuing Education Units that may be required by professional associations. Personal enrichment courses are also offered.

Mission Statement - The Division of Continuing & Community Education at Marshall Community & Technical College extends credit and non-credit courses for professional improvement, workforce development and personal enrichment to the community and beyond.

Continuing Education Units - The Division of Continuing & Community Education provides Continuing Education Units (CEU) Certificates for courses that meet the educational requirements required by government or industry organizations. Continuing Legal Education (CLE) units and other types of CEU's are provided to meet the educational requirements of associations and industries.

Preparatory Classes - A wide range of classes is provided to help individuals prepare for entrance tests, licensures and exams required by industry, education and government agencies. Some examples are educational prep classes for ACT, SAT, LSAT and GRE entrance exams. Industry prep classes include WorkKeys, ASE, CDR and NMTCB.

The Division of Continuing & Corporate Education strives to provide quality educational opportunities that meet the professional development and certification needs of entrepreneurs, industry, agencies or professional organizations, as well as the personal enrichment needs of individuals.

For more information, call (304) 399-1281 or visit www.mctc.edu

Course Descriptions

Academic Skills Center (ASC)
Accounting (AC)
Administrative Technology (AT)
Allied Health (AH)
American Sign Language (ASL)
Biological Sciences (BIOL)
Bioscience (BIOS)
Clinical Assistant (CLA)
Communication (COM)
Community & Technical College (COL)
Culinary Arts (CA)
Dental Laboratory Technology (DLT)
Dental Assistant (DA)
Economics (EC)
Education (EDUC)
Electronics Technology (ELT)
Emergency Medical Technology (EME)
English (ENL)
Finance and Banking (FN)
Health Information Technology (HIT)
Hospitality Management (HM)
Humanities (HMN)
Industrial Supervision & Mgmt. (ISM)
Information Technology (IT)
Inland Waterways (IW)
Interior Design (ID)
Kentucky Virtual University (KYV)
Legal Assistant (LAS)
Maintenance Technology (MTEC)
Machinist Technology (MT)
Management (MG)
Manufacturing Engineering Tech (MFE)
Marketing (MK)
Massage Therapy (MAS)
Mathematics (MAT)
Medical Assisting (MA)
Mining Information Tech. (MIT)
Occupational Development (OD)
Painting and Allied Trades (PAT)
Paramedic Science (PAR)
Pharmacy Technician (PHT)
Physical Therapist Asst. (PTA)
Police Science Tech. (PST)
Public Library Technology (PLT)
Radiographic Science (RS)
Reading (REA)
Science (SCI)
Social Science (SS)
Technical Studies (TS)
Technical Training for Adults (TTA)
Workforce Development (WFD)

COURSE DESCRIPTIONS

PR = Prerequisite (must have this course before taking listed course)
CR = Co requisite (may take this course at the same time as the listed course)
CR/NC = Credit/No Credit

ACADEMIC SKILLS CENTER (ASC)

ASC 080 – Pre-Algebra. 1 Credit

ASC 099 – Academic Skills Center. 1 Credit (CR/NC). This course is designed to allow students to work with teachers, computers, and videos to build academic skills and refresh existing skills.

ACCOUNTING (AC)

AC 103 – Introduction to Accounting. 3 Credits. This course will provide an introduction to basic accounting concepts and generally accepted accounting principles. It will include a focus on the accounting cycle and accounting terms.

AC 108 – Accounting for Business. 3 Credits. To provide students with a basic knowledge of accounting terms, concepts and procedures. Students will study procedures related to payroll, bank reconciliation, accounts payable, and accounts receivable. (Offered Spring Semester only)

AC 201 – Financial Accounting I. 3 Credits. Study of accounting practices and procedures in accordance with generally accepted accounting principles and concepts. The technical bookkeeping procedures of analyzing, recording and reporting accounting information are presented from an external perspective. (PR: AC 103 or Permission)

AC 202 – Financial Accounting II. 3 Credits. A continuation of Financial Accounting I, AC 202 is a study of accounting principles and procedures relating to capital budgeting and cost systems of corporations and partnerships from an external perspective. (PR: AC 201 or AC 108)

AC 210 – Managerial Accounting. 3 Credits. Presentation and application of the concepts and procedures of managerial accounting to enhance critical thinking and analytical skills. The course focuses on the use of accounting information to make internal managerial decisions. (PR: AC 201 or AC 108 or AC 103)

AC 221 – Computerized Accounting I. 3 Credits. Application of the small business computer and existing accounting software programs to the solution of accounting problems. Emphasis on extension of previously learned accounting principles. (PR: IT 101 or IT 101E and AC 103; IT 101 or IT 101E and AC 108; or IT 101 or IT 101E and AC 201; or Permission)

AC 222 – Computerized Accounting II. 3 Credits. Application of accounting principles and procedures utilizing current accounting software. This course in computerized accounting offers in-depth analysis and practical application of the accounting procedures related to payroll, accounts receivable, accounts payable and inventory. (PR: IT 101 or IT 101E and AC 103; IT 101 or IT 101E or AC 108; and IT 101 or IT 101E and AC 201; or Permission)

AC 234 – Taxation I. 3 Credits. Study of federal income tax law as applied to income, deductions, expenses and tax credits relating to an individual and small business. Emphasis is placed on application of the tax law through preparation of the proper schedules and forms of a federal income tax return. (PR: AC 201, AC 103, AC 108; or ACC 215)

AC 235 – Federal Taxation II. 3 Credits. A study of federal income tax rules and laws to determine income, expenses, gains and losses for business entities. Forms of business organizations, C corporations, S corporations, partnerships and limited liability companies and other taxable entities are examined to ascertain the appropriate forms to file as established by the Internal Revenue Service. (PR: AC 234)

ADMINISTRATIVE TECHNOLOGY (AT)

AT 104 – Records Management. 3 Credits. Fundamental principles of records management including the creation, storage, retrieval, deletion, filing, and organization of information in a records management system. Applicable database management software will be introduced.

AT 105 – Computerized Database Management. 3 Credits. Use of database management software to create and maintain databases.

AT 114 – Keyboarding II. 3 Credits. Emphasis is on the development of keying speed and accuracy. Further emphasis is placed on the designing, preparing, and keying of more complex two-page manuscripts, business forms, and other types of business correspondence. (PR: AT 136 or Permission and student must demonstrate a minimum of 35 wpm with five or fewer errors before he/she can enroll in AT 114)

AT 136 – Comprehensive Word Processing. 3 Credits. Provides hands-on training in the use of word processing software.

AT 160 – Introduction to Presentation Software. 3 Credits. Students will learn and apply presentation concepts and practices to create presentations using computer software.

AT 220 – Anatomy and Physiology for Transcription. 3 Credits. An introduction to the structure and function of the human body, by body system and on the cellular level.

AT 221 – Medical Terminology for Transcription. 3 Credits. An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary based on body systems.

AT 222 – Pharmacology for Transcription. 3 Credits. An introduction to the principles of pharmacology and a comprehensive study of drug action, routes of administration, classes of drug by body system, as well as antibiotics, antiviral drugs, IV fluids, blood products, anesthetics, emergency drugs, vaccines, and immunizations.

AT 223 – Beginning Laboratory Medicine for Transcription. 1 Credit. A comprehensive study of laboratory and pathology tests and procedures by body system, Part I.

AT 224 – Advanced Laboratory Medicine for Transcription. 1 Credit. A comprehensive study of laboratory and pathology tests and procedures by body system, Part II. (PR: AT 223)

AT 225 – Human Diseases for Transcription. 3 Credits. A comprehensive study of disease processes, organized by body system.

AT 226 – Surgical Procedures for Transcription. 1 Credit. A comprehensive study of surgical techniques, instruments, and operative procedures.

AT 242 – Legal Terminology and Transcription. 3 Credits. Provides training in legal terminology and transcription. (PR: AT 114 and AT 136)

AT 244 – Beginning Medical Transcription. 8 Credits. Transcription of authentic physician-dictated reports organized by body systems with emphasis on development of accuracy and medical knowledge for transcription of letters, chart notes, history and physical examination reports, consultations, emergency room reports, and discharge summaries. Use of reference materials and other resources, techniques for proofing and editing, discussion of professional issues in medical transcription, and review of grammar and punctuation are integrated in the content. (PR: Permission) (CR: AT 220, 221,222,223)

AT 245 – Pathology Transcription. 2 Credits. Transcription of authentic physician-dictated reports related to pathology with emphasis on development of accuracy and medical knowledge for transcription of autopsies, gross descriptions, and microscopic descriptions. Use of reference materials and other resources, techniques for proofing and editing, and review of grammar and punctuation are integrated in the content (PR: Permission or AT 224,225,244)

AT 246 – Radiology Transcription. 2 Credits. Transcription of authentic physician-dictated reports related to radiology with emphasis on development of accuracy and medical knowledge for transcription of soft tissue and bone x-rays, contrast material and interventional radiology, nuclear medicine, ultrasound, computerized tomography, and magnetic resonance imaging. Use of reference materials and other resources, techniques for proofing and editing, and review of grammar and punctuation are integrated in the content. (PR: Permission or AT 224,225,244)

AT 247 – Gastroenterology Transcription. 2 Credits. Transcription of authentic physician-dictated reports related to gastroenterology with emphasis on development of accuracy and medical knowledge for transcription of admission notes, emergency room notes, history and physical examinations, consultations, operative reports, and discharge summaries. Use of reference materials and other resources, techniques for proofing and editing, and review of grammar and punctuation are integrated in the content. (PR: Permission or AT 224,225,244)

AT 248 – Cardiology Transcription. 2 Credits. Transcription of authentic physician-dictated reports related to cardiology with emphasis on development of accuracy and medical knowledge for transcription of admission notes, emergency room notes, admitting history and physical examinations, consultations, operative reports, DC cardioversions, electrocardiograms, thallium treadmill exercise stress tests, echocardiograms, echo Doppler studies, electrophysiological studies, cardiac catheterization, and discharge summaries. Use of reference materials and other resources, techniques for proofing and editing, and review of grammar and punctuation are integrated in the content. (PR: Permission or AT 224, 225, 244)

AT 249 – Orthopedics Transcription. 2 Credits. Transcription of authentic physician-dictated reports related to orthopedics with emphasis on development of accuracy and medical knowledge for transcription of history and physical examinations, hospital progress notes, consultations, operative reports, and discharge summaries. Use of reference materials and other resources, techniques for proofing and editing, and review of grammar and punctuation are integrated in the content. (PR: Permission or AT 224,225, 244)

AT 250 – Medical Transcription Internship. 1 Credit. The student is placed in a facility where medical transcription is performed (hospital, clinic, physician's office, transcription company, or a combination of these sites). The student transcribes under the supervision of the site's medical transcription administrator. (PR: Permission)

AT 253 – Medical Transcription. 3 Credits. Preparation of medical documents dictated on electronic media. (PR: AT 136 and AH 151)

AT 255 – Desktop Publishing. 3 Credits. Study of desktop publishing concepts and techniques, and application of basic principles of design and layout using desktop publishing software. (PR: IT 101 or IT 101E)

AT 261 – Integrated Document Formatting. 3 Credits. Production of integrated documents with an emphasis on formatting, proofreading, and editing techniques and practices. (PR: AT 114)

AT 265 – Administrative Office Procedures. 3 Credits. This course focuses on promoting an understanding of office procedures, providing information on business principles, and promoting a high standard of ethics applicable to any business environment. Students are required to use e-mail, Internet, make a presentation, design their resume, and complete other office simulations. (PR: AT 136)

AT 280-287 – Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor.)

AT 290 – Internship. 3 Credits (CR/NC). Supervised on-the-job training for Administrative Technology students. Student must successfully complete 200 hours of appropriate office experience. (PR: Complete 45 credit hours toward AT degree, or permission)

ALLIED HEALTH (AH)

AH 100 – Careers in Healthcare. 3 Credits. Introduction to the healthcare profession, along with specific programs offered by MCTC.

AH 151 – Medical Terminology. 3 Credits. Introduction to basic techniques of medical word building principles and to the language used within health care systems.

AH 205 – Principles of Disease. 4 Credits. Introduction to the principles and issues of disease in a manner that will be both significant for understanding the disease process and relevant to allied health careers. Students will learn the cause and transmission of diseases, host response to the disease process, and their impact on social and political issues. (PR: SCI 257 or BSC 227)

AH 207 – Infection Control for Health Professionals. 4 Credits. This course will provide the learner with an overview and understanding of the fundamentals of communicable diseases. Students will be presented with information on the microbiology of contagious pathogens, disease transmission, and infection control measures to prevent or stop the spread of communicable diseases. Emphasis will be placed on the pathogens that are likely to be encountered in new or re-emerging infectious diseases. (PR: AH 151)

AH 216 – Basic Pharmacology. 3 Credits. An introduction to the study of drugs, including mechanisms of actions, therapeutic effects, and their role in treating disease. (PR: AH 151)

AH 217 – Personal Fitness Trainer. 4 Credits. This course is designed to prepare and qualify students to work as personal trainers. The course bridges the gap between exercise science related course work and the practical application skills of personal training. The students will learn how to properly screen and evaluate clients for safe participation in an exercise program; design and implement exercise prescriptions for multiple populations and successful goal attainment; and successfully sell and manage personal trainer services. Information on eligibility for a Personal Training Certification is provided.

AH 220 – Basic Nutrition. 3 Credits. Introduction to nutrition, stressing characteristics of nutrients and their food sources. Examines digestion, absorption and metabolism of nutrients. Covers individualized diet analysis and current interest topics such as weight management and some disease therapies. (Offered Spring Semester only)

AH 226 – Respiratory Therapy Pharmacology. 3 Credits. Study of general principles of respiratory pharmacology, including drug types, drug groups, methods of administration, dosage, effects, indication, contraindication, and regulations. (PR: Admission to Respiratory Therapy Program and AH 151) (Offered Fall Semester only)

AH 280-281 – Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor)

AMERICAN SIGN LANGUAGE (ASL)

ASL 101 – American Sign Language I. 3 credits. This course takes a functional-notational approach to learning American Sign Language (ASL), a language used by Deaf people in North America. Materials on basic conversational aspects in ASL will be introduced, such as introducing oneself, exchanging personal information, talking about surroundings, where you live, and your family and various activities. Students will acquire skills in receptive and expressive language functions in interactive contexts, in getting attention, negotiating a signing environment, and exchanging, confirming and correcting information, using appropriate phonological, lexical, syntactical, semantical, and pragmatic aspects of American Sign Language.

ASL 102 – American Sign Language II . 3 credits. This course is a continuation of ASL I. Materials on basic conversational aspects in ASL will be introduced, such as giving directions, describing others, making requests, talking about family and occupations, attributing qualities to others, and talking about routines. Students will acquire skills in receptive and expressive language functions in interactive contexts, in not only getting attention, negotiating a signing environment, and exchanging, confirming and correcting information, but also expressing degrees of uncertainty, and asking for clarification and repetition, using appropriate phonological, lexical syntactical, and pragmatic aspects of American Sign Language.

ASL 103 – ASL Fingerspelling. 3 Credits – This course concentrates on developing expressive and receptive fluency in the usage of the American manual alphabet, a wide variety of numbering systems, lexically borrowed signs, and acronyms within natural American Sign Language discourse. The basic principles and skills of ASL are employed through the use of non-verbal instruction. Emphasis is placed on the fostering of fluid, proper production, as well as recognition and application of rules and common patterns related to fingerspelling, numbering, loan signs, and acronyms with ASL.

ASL 104 – American Deaf Culture. 3 Credits. This course provides an overview of concepts and studies on American Deaf culture, and current issues facing the American Deaf culture.

ASL 105 – Deaf and ASL Art and Literature. 3 Credits. Students in this course will study and apply literary analysis and criticism to literary and artistic works on deafness by individuals who are deaf. Topics on the meaning of deafness, presentations and representations of deafness, American Sign Language, and Deaf people in society are explored through literary approaches. Through examination and application of literary theories, students will develop an appreciation of the complexities of meanings that deaf individuals develop during the course of experiencing, living and identifying with, and reflecting on deafness. This class uses an all discussion format, with students analyzing literary and artistic works and developing ideas.

ASL 201 – Sign Language III. 3 Credits. This course is a continuation of ASL II. It covers topics on locating things around the house; complaining, making suggestions and requests, and provides a cumulative review of the units studies.

ASL 202 – Sign Language IV. 3 Credits. The course is a continuation of ASL III. It covers topics on times of employment, work, relationships, personal job experiences, job market, and Deaf employment.

ASL 203 – American Deaf Community History. 3 Credits. This course provides a historical overview of Deaf community history in America from the seventeenth to the twenty-first centuries.

ASL 204 – Recourses for the Deaf Community. 3 Credits. This course provides an overview of resources concerning the American Deaf community.

ASL 205 – Deaf People in American History. 3 Credits. This course provides an overview of Deaf people in American history from the eighteenth to the twenty-first centuries.

ASL 206 – Applied Issues Concerning the Deaf Community. 3 Credits. This course provides an overview of research issues concerning the American Deaf community and its history, American Deaf culture and its history, and American Sign Language and its history.

BIOLOGICAL SCIENCES (BIOL)

BIOL 101 – Unified Principles of Biology. 3 Credits. A consideration of how processes of life are related and how the principles of biology are important in the everyday life of man. Emphasis will center on current scientific issues that face human life.

BIOL 101L – Unified Principles of Biology Laboratory. 1 Credit. The laboratory component of Unified Principles of Biology is an introductory biology lab course. Basic biological principles and how these principles affect the everyday life of man will be examined. (CR: BIOL 101)

BIOL 102 – Introduction to Human Biology. 3 Credits. Biological principals of structure and function in plants and animals with an emphasis on population growth, ecological systems, and the human model. Discussion of the human impact on the environment is included.

BIOL 210 – Introduction to Clinical Microbiology. 3 Credits. An introduction to the role of microorganisms in the disease process. (PR: MAT 145; MAT 145E; MAT 150 or MAT 150E)

BIOL 211 – Microbiology for Respiratory Care. 3 Credits.An introduction to the role of microorganisms in the disease process for the respiratory therapy student.

BIOL 221 – Structural Kinesiology 4 Credits. This course presents a working knowledge of biomechanical principles for use in the evaluation and treatment of musculoskeletal dysfunction. It will address the biomechanics of musculoskeletal tissues and structures, the biomechanics of the most commonly injured human joints, and applied biomechanics. Special emphasis will be placed on musculoskeletal anatomy and physiology as each student will be responsible for learning origins, insertions, and actions of the prime movers of the primary articulation. (PR: Successful completion of BIOL 260 with a “C” or better, CR: BIOL 260)

BIOL 240 – Principles in Cell Biology 4 Credits. This course is an introduction to the aspects of cell biology and biochemistry in bioscience and allied health. Topics include organic chemistry, enzymology, biochemistry, molecular biology, proteomics, and genetics. (PR: BIOL 101 and BIOL 101L)

BIOL 245 – Physiology of Exercise 3 Credits. This course presents a working knowledge of the physiology of exercise as it relates to the function of the body in the state of, and the adaptations from, the application of exercise. Emphasis will be placed on bioenergetics and energy metabolism as well as the contributions and adaptations of the nervous, skeletal, muscular, circulatory, and respiratory systems. A review of testing for adaption as well as various population will also be assessed. (PR: Successful completion of BIOL 265 with a "C" or better,)

BIOL 255 – Introduction to Histology. 3 Credits. An introduction to the study of cellular structure and physiology in human tissues and the arrangement of tissues in organ systems. (PR: BIOL 257 or BIOL 260 and BIOL 265)

BIOL 257 – Introduction to Anatomy & Physiology. 3 Credits. This course is designed to build the student's understanding of the most basic body structures, how these structures function, dysfunction of the structures, common disease, testing and terminology. This course, using a systems approach, will provide the student with the basic understanding of anatomical structure and function/ dysfunction.

BIOL 260 – Applied Human Anatomy. 4 Credits. This course is designed for the student to acquire a basic working knowledge of the functional structure of the human body. It is designed for students in pursuit of professional health programs such as nursing, med tech, dietetics, cardiac rehab, and physical therapy assistant. (PR: Successful completion of BIOL 257 with a "C" or better or ACT 19)

BIOL 265 – Applied Human Physiology. 4 Credits. This course is designed to introduce the student to the function of the various physiological systems in humans and have the student perform lab exercises to demonstrate these concepts. (PR: Successful completion of BIOL 257 or BIOL 260 with a "C" or better or ACT 18)

BIOL 280-285 – Biology Special Topics. 1-8 Credits. Study of content not normally covered in ordinary courses.

BIOSCIENCE (BIOS)

BIOS 100 – Careers in Bioscience. 3 Credits. This course gives an overview of the many career options within the field of bioscience, biotechnology and biomanufacturing. Emphasis will be placed on workplace readiness, characteristics of the working environment, and required skills for successful employees.

BIOS 201 – Laboratory Methods I. 3 Credits. This course covers the basic laboratory techniques in laboratory science including equipment, troubleshooting, and appropriate documentation. (PR: Admission into the Bioscience Program)

BIOS 202 – Calculations in Bioscience. 3 Credits. This course provides the specific information bioscience technicians require when working with laboratory calculations and measurement and how these relate to the specific applications in bioscience careers. (PR: MAT 145 or higher with a "C" or better)

BIOS 205 – Laboratory Methods II. 3 Credits. This course covers advanced techniques in laboratory science including equipment, troubleshooting, and appropriate documentation. (PR: BIOS 201, 202, MAT 145, BIOL 240 with a "C" or better)

BIOS 240 – Principles in Cell Biology. 4 Credits. This course is an introduction to the aspects of cell biology and biochemistry in bioscience and allied health. Topics include organic chemistry, enzymology, biochemistry, molecular biology, proteomics, and genetics.

BIOS 241 – Regulatory Affairs. 3 Credits. This course covers validation concepts for plant processing, cleaning, sterilizing, filtration, analytical methods, and computer systems used in biomanufacturing. Topics include cGMP, IEEE, SQAP, and new electronic requirements. Federal and international regulations and inspections are discussed. (PR: BIOS 100)

BIOS 242 – Molecular Methods in Biotechnology. 4 Credits. This course covers the underlying concepts of a broad range of scientific principles that use molecular applications of DNA technology. Topics include the types of organisms and cells used in molecular biotechnology; DNA, RNA, and protein synthesis; genetic engineering; microbial production of therapeutic agents; and human molecular genetics and gene therapy. (PR: BIOS 201, BIOL 240, Admission to the Bioscience Program)

BIOS 280-289 – Special Topics in Bioscience. 1 Credit. Variety of topics not covered in regular classes.

BIOS 299 – Bioscience Internship. 6 Credits. Internship in laboratories of bioscience companies or research groups.

CLINICAL ASSISTANT (CLA)

CLA 200 – Phlebotomy. 2 Credits. This courses offers the student an overview and introduction to phlebotomy techniques following current CLSI guidelines. During this course, the student will develop specimen collection techniques including venipuncture and capillary skin puncture. At the conclusion of this course, the student will be able to identify specimen requirements for common laboratory tests and list tests that require special collection and/or transport procedures. (PR: BIOL 257 or BIOL 260)

CLA 201 – Laboratory Safety, Ethics, and Law. 2 Credits. In this course, students will be introduced to laboratory safety practices, medical law as it relates to the laboratory field, as well as healthcare ethics. The student will be presented with information on appropriate laboratory techniques, the standard operating practices of the clinical laboratory, along with federal, state and local safety regulations. During the second half of the course, the student will be introduced to contemporary ethical issues in the healthcare field. They will be presented with information regarding types of laws governing healthcare facilities, issues of confidentiality and consent, and professional liability. At the conclusion of the course, the student will have developed professional ethics and morals, strong communication skills and the ability to effectively manage conflict resolution. (Offered Fall Semester only)

CLA 202 – Laboratory Calculations. 2 Credits. In this course, the student will be introduced to mathematical calculations routinely encountered in hospital and physician's office laboratories. The student will be presented with information specific to clinical laboratory science. By the end of this course, the student will be competent to perform basic laboratory calculations commonly used in the areas of Clinical Chemistry, Hematology, Urinalysis, Immunology and Microbiology. The student will also gain an understanding of the principle of clinical instrument calibration, as well as statistical calculations used for quality control procedures, quality assurance, and analytical method comparison used in the clinical laboratory. (PR: MAT 145) (Offered Fall Semester only)

CLA 203 – Urinalysis and Specimen Processing. 2 Credits. This course offers the student an overview and introduction to specimen collection, the

concept of pre-analytical variable, and methods of specimen processing and transport commonly used in the Clinical Laboratory environment. Students will gain knowledge of body systems, common disorders associated with each system, and diagnostic tests routinely used for treatment and diagnosis. During this course, the student will develop specimen collection techniques including venipuncture and capillary skin puncture, as well as collection of non-blood specimens such as urine and bacterial cultures. At the conclusion of this course, the student will be able to identify specimen requirements for common laboratory tests and list tests that require special collection and/or transport procedures. (PR: BIOL 257 or BIOL 260) (Offered Spring Semester only)

CLA 204 – Introduction to Point of Care Testing. 4 Credits. This course introduces students to point-of-care testing, CLIA waived, and selective CLIA moderate-complexity laboratory testing commonly encountered in ambulatory health care settings. Students will be presented with both fundamental and advanced concepts of Urinalysis, Hematology, Chemistry, Coagulation, Immunology, Immunohematology and Microbiology testing. At the conclusion of this course, the student will be able to apply those concepts to successfully perform laboratory procedures. (Offered Fall Semester only)

CLA 205 – Introduction to Automated Instrumentation. 2 Credits. This course offers an introduction to the usage of CLIA waived and low-complexity laboratory instruments. Students will gain an understanding of common methodologies, techniques, and principles of laboratory testing and instrumentation. During this course students will perform and interpret instrument calibration and quality control, as well as demonstrate general maintenance and troubleshooting procedures. Upon completion of this course, students will be proficient in the general operation of waived and low-complexity analyzers, result validation, and documentation. (PR: SCI 257 for Certificate Degree OR PR: SCI 260 and SCI 265) (Offered Fall Semester only)

CLA 206 – Introduction to Physician Office Laboratory. 2 Credits. During this course, students will be introduced to a simulated physician's office laboratory setting. Students will also be introduced to Laboratory Information systems. Upon completion of this course, students will be competent to perform selective moderate-complexity laboratory procedures commonly used in physician's offices and small hospitals. (PR: SCI 257 for Certificate Degree OR SCI 260 and SCI 265) (Offered Spring Semester only)

CLA 299 – Clinical Assistant/POCT Internship. 4 Credits. This course is designed to reinforce the concepts and skills attained in CLA 201-206. Students will complete a clinical internship under the supervision of licensed medical laboratory technicians and medical technologists. Successful completion of this internship requires mastery of skills at the clinical assistant level for all areas of the laboratory including; phlebotomy, donor room facilities, specimen processing, urinalysis, hematology, immunology, chemistry, and microbiology. (PR: Completion of all previous LCA coursework with a minimum grade of "C", admission to CA/POCT Program, and permission of program coordinator) (Offered Spring Semester only)

COMMUNICATION (COM)

COM 112 – Oral Communication. 3 Credits. This course provides instruction and experience in preparation and delivery of presentations in public settings and group discussions. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students will be able to design and deliver well-organized presentations and participate in group discussions with appropriate audiovisual support.

COM 125 – Interpersonal Communication. 3 Credits. This course is designed to give students the interpersonal skills to communicate effectively in the workplace. It will help build and enhance communication skills through active listening, verbal and nonverbal communication, managing conflict, critical thinking, understanding diversity and the effects of culture, and understanding how the imbalance of power can lead to difficulties within a workplace.

COM 130 – Mass Communication and Culture. 3 Credits. This course is an overview of mass communication, which focuses on media history and critical media literacy. Students will investigate the relationship between mass culture and mass communication while learning the evolution of major US media channels (newspaper, TV, radio, internet, etc.). Students will also learn to distinguish between objective/critical and subjective/consumer relationships with the media.

COM 280-283 – Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of division director or course instructor.)

COMMUNITY & TECHNICAL COLLEGE (COL)

COL 101 – New Student Seminar – CTC. 1 Credit (CR/NC). CTC 101 is designed as an introduction to college life and is intended for freshman and new transfer students. The course provides students with an opportunity to adjust to the academic and social environment of college under the guidance of a faculty/staff mentor and in the presence of a small group of peers.

COL 110 – Math Study Strategies. 1 Credit. (CR/NC) Evaluation of math strengths and weaknesses and learning style evaluation. Time management, note taking skills, test anxiety, and other needed study strategies as they apply to math courses.

COL 138 – Academic Skills Review. 3 Credits. Academic preparation to help students improve study methods, time management methods, textbook reading skills, listening and note taking procedures, and test taking skills.

COL 280-285 – Special Topics. 1-6 Credits. This course will consist of study of content not normally covered in other courses. (PR: Permission)

COMPUTER AIDED DESIGN (CAD)

(Classes are taught at Cabell County Career Technology Center)

CAD 111 – Computer-Aided Drafting for Interior Design. 3 Credits. Introductory computer drafting using CAD incorporating fundamental drafting components, file management, floor plans, elevations, and 3-D model.

CAD 211 – Advanced Computer Aided Interior Design. 3 Credits. Advanced computer 3-D drawings in perspective and elevations. (PR: CAD 111)

CULINARY ARTS (CA)

CA 105 – Fabrication and Knife Skills. 3 Credits. This course covers the principles of basic knife skills and the techniques for the production and fabrication of meats, game, poultry and seafood in the culinary industry to the standards present in the field. Students will learn recipe conversions and proper measuring skills in both standard U.S. measurements and metric measurements. (PR: CA 200)

CA 110 – Mise en Place. 3 Credits. This introductory course covers the principles of food service operations, basic sauces, stocks, salads, and sand-

wiches and other food preparation techniques and procedures. Students will apply knowledge of rules and laws referencing sanitation and safety regulations. Proper equipment and knife handling principles will be demonstrated. (PR: CA 105 and 200)

CA 111 – Mise en Place II. 3 Credits. This course is a continuation of the principles covered in CA 110. (PR: CA 110)

CA 112 – Garde Manger. 3 Credits. The focus of this course is to develop skills in providing a variety of cold food products. Students will also learn to prepare appropriate buffet presentations and decorative pieces. (PR: CA 105, 110, and 200)

CA 116 – Introduction to Breads and Doughs. 3 Credits. An introduction to the fundamentals of baking science in the preparation of a variety of products. Use and care of equipment normally found in the bake shop or baking area. (PR: 105, 110 and 200)

CA 120 – A la Carte Dining Room Service I. 3 Credits. Dining room service will involve the basic understanding of traditional service styles used in dining room operations. The course focuses on service organization, American service, French services and quick service as it pertains to restaurant operations. (PR: CA 110,115,200)

CA 135 – International Cuisine. 3 Credits. This course will explore various international cuisines along with special features of geography, climate and culture that influence regional cooking. (PR: CA 105, 110, 112, 116, 200, 205 and 269)

CA 190 – Hospitality Lab Practicum I. 1 Credit (CR/NC). This course provides the student an opportunity to apply knowledge and practice the skills developed during the first semester from introductory courses such as: CA 105, CA 110, CA 120 and CA 200. The student will complete 50 hours of service, practice and preparation at The Cooking and Culinary Institute and selected events chosen by the program coordinator. 200 hours are required for graduation.

CA 195 – Hospitality Lab Practicum I. 1 Credit (CR/NC) This course provides for the practical application of culinary production techniques in a catering setting. Participation in an observation of production and management controls in a culinary venue will provide an opportunity to hone skills. Students will gain enhanced competency in performance of skills covered to date from courses CA 112, CA 269, CA 270 and CA 275. The student will complete 50 hours of service, practice preparation at The Cooking and Culinary Institute and selected events chosen by the program coordinator. 200 hours are required for graduation.

CA 200 – Culinary Sanitation and Safety. 3 Credits. This course focuses on the sanitation aspects of the food service industry. Additional subject matter will include establishing the food safety system, keeping food safe in storage facilities and sanitary equipment, accident prevention, crisis management and dealing with sanitation regulations and standards.

CA 205 – A la Carte Dining Room Service II. 3 Credits. This course covers advance dining room procedures. Students are exposed to advanced table service techniques, table side preparation and the importance of guest satisfaction. (PR: CA 105, 110, 112, 120, 200 and 269)

CA 224 – Intermediate Cooking and Artistry. 3 Credits. This course covers the principles of intermediate food preparation and identification as well as manufacturing of products. Students will learn presentation skills and menu development (PR: CA 110 and CA 111)

CA 225 – Advanced Cooking and Artistry. 3 Credits. This course will focus on the more advanced techniques of culinary arts and menu planning for chefs or restaurant owners. Students will become familiar with the advanced techniques of food selection, storage, menu planning, preparation and service. This course will introduce the students to the requirements necessary to successfully compete in culinary competition. American Culinary Federation culinary standards will be discussed and practiced for product development. Capstone Class. (PR: CA 105, 110, 112, 116, 135, 200, 205 and 269. Permission from the program coordinator)

CA 235 – Menu Planning. 3 Credits. This course focuses on the principles of menu planning, lay-out, and development for a variety of facilities and services. It also provides a foundation in costing, marketing, and merchandising a menu.

CA 245 – Culinary Nutrition. 3 Credits. This course is an introduction to nutrition using dietary recommendations, food guides, food labels and My Pyramid Guide to plan menus. Complex carbohydrates, lipids (fats and oils), protein, vitamins, water and minerals will be reviewed. Development of nutritional menus and recipes, marketing healthy menu options, light beverages and foods for the beverage operation, nutrition and health, weight management and exercise, and nutrition over the life span, from pregnancy to the infant, child, adolescent and older adult will be studied.

CA 255 – Advanced Pastries. 3 Credits. This course will focus on advanced baking and pastry techniques. Emphasis will be placed on wedding cakes, individual pastries, plated desserts, frozen desserts, light desserts, charlottes, Bavarian creams, mousses, soufflés, modernist desserts, chocolate artistry, sugar works and marzipan figures. (PR: CA 110 and 116)

CA 260 – Culinary Selection and Procurement. 3 Credits. An overview of the purchasing function, ordering, receiving, and storing purchases will be the emphasis of this hospitality course. Emphasis will be placed on how to purchase produce, eggs, poultry, fish and meat, dairy products, beverages, equipment and other non food items.

CA 269 – Soups, Stocks and Sauces. 3 Credits. This course covers the principles of basic soups, stocks and sauces and their preparations, techniques, and procedures. Students will apply knowledge of rules and laws referencing sanitation and safety regulations. (PR: CA 105, 110 and 200)

CA 270 – Managing Culinary Operations. 3 Credits. This course will consider restaurant operations, the menu, cost control, and financial matters. It will explore legal issues specific to restaurant staff, customer service, laws and regulations, and sanitation.

CA 275 – Cost Control and Revenue Management. 3 Credits. An overview of financial management in food service. This course will explore food and beverage cost control, managing production, labor and expense cost control, analyzing financial data, managing security, and using computers in cost control. (PR: IT 101)

CA 290 – Hospitality Lab Practicum III. 1 Credit (CR/NC) This course will provide an opportunity for shadowing hospitality instructors during skill development and service production labs. This experience will present situations where lab assistants can emulate the role of trainer within a controlled environment. The student will complete 50 hours of service, practice and preparation at The Cooking and Culinary Institute and selected events chosen by the program coordinator. 200 hours are required for graduation.

DENTAL ASSISTANT (DA)

DA 241 – Dental Assisting Biomedical Sciences. 4 credits. This course reviews proper nutrition as it relates to preventative dentistry. Students examine basic structures and functions of the human body and their relevance to dental treatment. The course focuses on principles of disease transmission and prevention. Current technology is utilized to master course standards. Students are provided the opportunity to participate in a Career and Technical Student Organization (CTSCO).

DA 242 – Dental Assistant Clinical Practices. 4 credits. This course focuses on knowledge and skills required for the dental assistant to function within the areas of radiography and emergency medical care. Current technology is utilized to master course standards. Students are provided the opportunity to participate in a Career and Technical Student Organization (CTSCO).

DA 243 – Dental Assistant Clinical Sciences. 4 credits. This course focuses on the internal functions of the dental office as well as the pertinent legal and ethical responsibilities. Current technology is utilized to master course standards. Students are provided the opportunity to participate in a Career and Technical Student Organization (CTSO).

DA 244 – Dental Assistant General Studies. 3 credits. This course explores the career of dental assisting along with opportunities for higher education. After a review of professional organizations associated with this career area, the content focuses on basic knowledge and skills needed as the dental assistant interacts with clients and dental team members. Current technology is utilized to master course standards. Students are provided the opportunity to participate in a Career and Technical Student Organization (CTSO).

DA 245 – Dental Assistant Clinical Mentoring. 6 credits. In this course, the student participates in a school and community partnership that affords practical "hands-on" training under the supervision of a career-related professional. The partnership takes place in a clinical facility, which shares insight, knowledge, and skills instruction. Current technology is utilized to master course standards. Students are provided the opportunity to participate in a Career and Technical Student Organization (CSTO).

DA 246 – Dental Science. 4 credits. Students explore the dental anatomy and physiology of the face and neck as they relate to dental health. The course includes pathophysiology of the face and neck, charting methods, dental pharmacology and appropriateness of dental related dental procedures.

DA 247 – Dental Specialty I. 2 credits. This course examines the general dental anatomy and physiology along with corresponding pathology. Students learn to recognize duties of general assistant, to demonstrate skills in surgical procedures, to demonstrate skills necessary for treatment of endodonic patients and to demonstrate skills in instrumentation use.

DA 248 – Dental Terminology I. 2 credits. This course covers the necessary medical terminology related to dental science. Students learn the necessary communication skills needed to work in a dental clinic. Topics include terminology relating to infection control, clinical chair side assisting, radiology and dental laboratory material.

DA 249 – Supervised Dental Experience. 3 credits. This course focuses on instructional components that will enable a student to work as an effective member of the dental team. Students are introduced to the specialties of dentistry and the requirements necessary to function as an administrative and chair-side assistant in a dental office. Current technology is utilized to master course standards. Students are provided the opportunity to participate in a Career and Technical Student Organization (CTSO).

DA 250 – Dental Specialty II. 2 credits. This course is a continuation of DA 247 Dental Specialty I. This course continues to examine the general dental anatomy and physiology with corresponding pathology. Students demonstrate computer literacy, capacity to solve real-world problems as they relate to dental health and learn key aspects of entrepreneurial success and performance.

DA 251 – Dental Terminology II. 2 credits. This course is a continuation of DA 250 Dental Terminology I. This course continues to cover the necessary medical terminology related to dental science. Topics include dental terminology in the areas of pharmacology, emergency care, business office procedures and specialty areas of dental clinics.

DENTAL LABORATORY TECHNOLOGY (DLT)

(Classes are taught at Putnam County Technical Center in Eleanor, WV)

DLT 101 – Introduction to Dental Technology. 6 Credits. Introduces students to various dental materials and provides hands-on experience in the construction of basic dental appliances. Safety hazards in the lab are discussed and prevention of accidents stressed. (PR: Admission to Program) (Offered Fall Semester only)

DLT 104 – Complete Dentures. 9 Credits. Students will be introduced to oral landmasks, muscles, bones, tissues, and procedures involved with dental appliances that are substitutes for all lost natural teeth and associated structures of the upper and lower arches. (Offered Fall Semester only)

DLT 108 – Partial Dentures. 9 Credits. Students will build upon previously learned dental laboratory skills to survey and design the framework for partial dentures. (Offered Spring Semester only)

DLT 112 – Inlays/Crowns/Bridges/Ceramics. 10 Credits. Students will learn advanced dental laboratory skills including pouring stone dyes and working casts, determining margins and define the dyes, demonstrating knowledge of tooth morphology. (Offered Spring Semester only)

DLT 116 – Clinical Experience. 1 Credit. The clinical consists of 10 days of on the job training in one commercial dental laboratory location. In the lab they will work in several different departments and jobs to enhance their clinical experience. Students will utilize skills learned in the classroom while completing their clinical training. (PR: DLT 101, DLT 104, DLT 108, and DLT 112) (Offered Spring Semester only)

ECONOMICS (EC)

EC 102 – Basic Economics. 3 Credits. An introduction to basic microeconomic and macroeconomic concepts and institutions, key economic relationships and terms.

EC 201 – Fundamentals of Microeconomics. 3 Credits. The purpose of this course is to provide an introduction to the study of microeconomics as it examines the decision making processes of allocating scarce resources for specific segments of the economy. Topics that will be covered include supply and demand, production, pricing, taxes, distribution, market structures, labor markets, marginal utility, public goods, externalities, and international trade.

EC 202 – Fundamentals of Macroeconomics. 3 Credits. The purpose of this course is to provide an introduction to the study of macroeconomics as it examines the decision making processes of allocating scarce resources in the overall economy. Topics that will be covered include an overview of basic economic concepts, gross domestic product and economic growth, inflation, unemployment, aggregate supply and demand, fiscal policy, money and monetary policy, national deficits and debt, and international trade. (PR: EC 201 or Permission)

EDUCATION (EDUC)

EDUC 101 – Healthy Environment for Young Children. 3 Credits. This course is an introduction to the basic requirements and regulations for health and safety in early childhood programs serving young children. This course is intended to prepare students to follow the practices required of all individuals who participate in early childhood programs.

EDUC 105 – Computer Instruction Technology in the Classroom. 3 Credits. This is a course in skill development using computer-generated media. An emphasis will be placed on computer skills and their application to young children and the early childhood classroom. This course will also explore administrative technology and assistive technology in the early childhood classroom. This course will be taught utilizing 3 components. (PR: IT 101)

EDUC 120 – Foundations of Early Childhood. 3 Credits. This is an introductory course of the history, philosophy and theoretical foundations of early childhood programs with specific attention to current programs serving children prior to school entry. Concepts for providing developmentally appropriate practices are introduced. Observation hours in an early childhood classroom outside of classroom instruction will be required. (PR: COM 095, ENG 095 or placement in 100 level COM, ENL)

EDUC 204 – Parenting. 3 Credits. This course exams parenting from a sociocultural and developmental perspective using a systems model. This course is in no way meant to be manual for child rearing, but a study of parenting. (PR: EDUC 120 and ENL 111)

EDUC 225 – Development of Young Children. 3 Credits. This course examines the physical, emotional, cognitive and intellectual development of young children. This course will examine relationships with parents and peers and growth in self-direction with a primary focus on young children birth through five years of age. Observation and participation in an early childhood classroom required. (PR: EDUC 101 and ENL 111)

EDUC 232 – Classroom Management in Education. 3 Credits. This course is an introduction to classroom management strategies and techniques to utilize inside the classroom environment. This course will allow students to examine a variety of classroom strategies and comprehensive approaches to discipline in the field of education. (PR: ENL 111)

EDUC 261 – The Exceptional Child. 3 Credits. This is an introductory course of children who differ from the average child in mental, physical and emotional characteristics. The purpose of this class is to provide educators with an overview of children with exceptional needs, focusing on historical, legal and multicultural issues, high-incidence disabilities and giftedness: including characteristics and adaptations of educational procedures. (PR: EDUC 225)

EDUC 270 – Level I Clinical Experience. 0 credit (CR/NC). A clinical experience for Early Childhood Education majors. This field experience will provide opportunities for observations and participation with young children under the supervision of qualified professionals. Students must successfully complete the field experience to pass the course. (CR: EDUC 225 or SS 215 for ACDS students)

EDUC 280 – 284. Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor)

EDUC 299 – Capstone. 3 credits (CR/NC). This course involves the application of coursework, theories, and practice. Places the student in a practicum based experience where classroom instruction applies to real experiences in the field. (PR: Permission)

ELECTRONICS TECHNOLOGY (ELT)

ELT 110 – Basic Electronics. 3 Credits. Course focuses on fundamental concepts of electronics. Designed for the first-time student of the principles and applications of electricity and electronics. (Classes offered at Cabell County Career Technology Center – Fall Semester only)

ELT 111 – Direct Current Circuit Analysis. 4 Credits. Direct current circuits, electrical and magnetic phenomena, utilization of circuital theorems for the solution of circuits and networks, conductors, insulators and magnetic materials. (CR: ELT 111L and MAT 145)

ELT 111L – Direct Current Electronics Lab. 2 Credits. The focus of the course is to develop knowledge and skills relevant to the concepts of electronics. The principles and applications of Direct Current Theory in electricity and electronics are studied. (CR: ELT 111)

ELT 121 – Alternating Current Circuit Analysis. 4 Credits. Course focuses on alternating current circuits and includes peak average and effective values, capacitors, indicators and transformers, reactance, impedance, resonance and filters. (PR: ELT 111 and CR: ELT 121L) (Offered Spring Semester only)

ELT 121L – Alternating Current Electronics Lab. 2 Credits. Focus of course is to develop knowledge and skills relevant to the concepts of electronics. The principles and applications of AC Circuit Theory in electricity and electronics are studied. (CR: ELT 121)

ELT 131 – Analog Circuits. 5 Credits. The study of semiconductor devices and circuits to include thyristors, FET's and linear ICS. (PR: ELT 121 and CR: ELT 131L)

ELT 131L – Analog Circuits Lab. 1 Credit. Focus of course is to develop knowledge and skills relevant to the concepts of electronics. The principles and applications of Analog Circuit Theory in electricity and electronics are studied. (CR: ELT 131)

ELT 209 – Basic Networking. 3 Credits. This course is designed to give the student a basic understanding in maintaining, upgrading and troubleshooting LANs and WANs. (PR: Permission)

ELT 210 – Basic Motors. 3 Credits. This course is designed to give the student a basic understanding of AC and DC motor operation and the circuits control motor function. (PR: ELT 121 and ELT121L or Permission)

ELT 211 – Combinational Logic Circuits. 5 Credits. Analysis of combinational digital devices, circuits, and systems through the study of logic waveforms, numbering, systems, gates, Boolean Algebra and Karnaugh maps with emphasis on troubleshooting. (PR: ELT 131 and MAT 215; CR: ELT211L) (Offered Spring Semester only)

ELT 211L – Combinational Logic Circuits Lab. 2 Credits. Focus of course is to develop knowledge and skills relevant to the concepts of electronics. The principles and applications of Logic Circuit Theory in electricity and electronics are studied. (CR: ELT 211)

ELT 221 – Sequential Logic Circuits. 4 Credits. Analysis of sequential digital devices, circuits, and systems through the study of waveforms, timing diagrams, state tables, truth tables, and Karnaugh maps as a foundation for microprocessor system study. (PR: ELT 211 and CR: ELT 221L)

ELT 221L – Sequential Logic Circuits Lab. 2 Credits. Focus of course is to develop knowledge and skills relevant to the concepts of electronics. The principles and applications of sequential logic circuit theory in electricity and electronics are studied. (CR: ELT 221)

ELT 222 – Introduction to Microprocessors. 4 Credits. A combination of classroom and lab experience designed to teach the student how to work with microprocessors as they apply to consumer, industrial and business equipment. (PR: ELT 211)

ELT 223 – Biomedical Instrumentation. 3 Credits. This course is designed to help prepare the student to address biomedical instrumentation, calibration and measurement by blending electrical fundamentals with the unique demands of the patient care and laboratory environment. Students will experience hands-on training with various patient care monitors and sensors as well as many types of diagnostic, therapeutic and clinical laboratory equipment. (PR: ELT 211 and ELT 211L)

ELT 280-283 – Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of division director or course instructor.)

ELT 299 – Electronic Technology Internship. 3 Credits (CR/NC). The student works in a supervised work situation for a specific period for practical work experience. (PR: Permission)

EMERGENCY MEDICAL TECHNOLOGY (EME)

EME 105 – First on Scene. 3 Credits. This course is designed to teach the student to manage a medical emergency until other EMS personnel arrive. An emphasis is placed on victim/patient stabilization using supplies available to the layperson.

EME 109 – Emergency Medical Technician. 6 Credits. A course designed to teach the student to assess and manage medical/trauma emergencies in the pre-hospital setting. Following completion students will be eligible to take the National Registry for EMT. This course follows the guidelines set forth by the Department of Transportation and the West Virginia Office of Emergency Medical Services. (CR: EME 109L)

EME 109L – Emergency Medical Technician Lab. 1 Credit. A course designed to develop competency in practical skills covered in the Emergency Medical Technician class. This course follows the guidelines set forth by the Department of Transportation and the West Virginia Office of Emergency Medical Services. (CR: EME 109)

EME 280- 283 – Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor)

ENGLISH (ENL)

ENL 085 – Developmental Writing Lab. 2 Credits. This course is designed for students whose placement scores indicate a need for additional writing instruction and practice while taking ENL 095 Developmental Writing. Taken as a corequisite with ENL 095, ENL 085 is a two-credit-hour course that counts toward full-time enrollment status and financial aid eligibility but does not count toward the number of hours required to complete any degree program. Placement in ENL 085 is determined by ACT score, SAT score, or upon evaluation of Writer Placer exam. (PR: ACT 13 or less, SAT 369 or less or Writer Placer exam evaluation. CR: ENL 095)

ENL 095 – Developmental Writing. 3 or 5 Credits (CR/NC).This course combines a review of grammar skills and introduction to the written essay. Prepares students for ENL 101 or ENG 101. Graduation requirement is increased by three hours for students who complete this course.

ENL 111 – Written Communication. 3 Credits. This course provides instruction and experience in preparation and delivery of written communication in workplace and personal settings. Emphasis is placed on the writing process including production of unified, coherent, well-developed essays, letters and memos using standard written English. (PR: COM 095; ENL 095; ACT 18 or PLAC 101)

ENL 115 – Written Communication II. 3 Credits. This is a research-based writing course designed to help the student develop advanced skills in composition, editing, and critical thinking needed for other college courses and professional careers. (PR: COM 111; ENL 111 or ENG 101, ENL 101)

ENL 201 – Introduction to Literature. 3 Credits. This course is an introduction to literature through original works of prose, fiction, poetry and drama. It introduces students to the interpretive approaches to literature, and to some of the specialized terms, such as sonnet, antagonist, and epiphany, that will help them articulate their thoughts and observations about what they read. (PR: ENL 115)

ENL 231 – Technical Report Writing. 3 Credits. A course designed to prepare students to write technical reports. Emphasis is on good writing principles and the use of supplementary illustrations as they apply to technical reports. (PR: COM 111; ENL 111 or ENG 101 or permission ENL 101)

ENL 245 – Elements of the Short Story. 3 Credits. This course will examine the art of short fiction in American History. It will delineate the structure of short story writing, theme, and characterization with information on the authors studied. (PR: ENG 115).

ENL 251 – Contemporary West Virginia Writers. 3 Credits. This class focuses on the literary works of contemporary West Virginia writers. By examining a variety of literary texts as well as illustrations and other visual or audio-visual representations, students will consider cultural and literary issues through the genres of memoir, gothicism, romance, and mystery in West Virginia contemporary (PR: ENL 115)

ENL 260 – Introduction to Creative Writing. 3 Credits. This course is designed to facilitate the student's creative faculties and abilities. The course serves as an introduction to the writing of original poetry, short fiction, and drama. Instruction in literary techniques will direct the student's writing. In addition to working with literary conventions to produce manuscripts, students will be exposed to exemplary texts by selected authors. Students will learn to critique their own work and the work of others by participating in writing workshops. Students will be introduced to markets for creative writing and be encouraged to submit some work for publication. (PR: ENL 260)

ENL 265 – Reading JFK: The Kennedy Assassination through Literature. 3 Credits. A multimedia survey course of key documents (both official and pop-culture oriented) relating to the assassination of President John F. Kennedy. Students will develop knowledge of the background and aftermath of history's most famous murder through reading of excerpted essay material, biography, fiction, government documents, film, documentary, etc. Critical thinking skills will be stressed as students research and debate conflicting theories about the assassination, generating both formal (researched writing) and informal (creative fiction) writing. (PR: ENL 115)

ENL 270 – Literature of Rebellion. 3 Credits. Comparative literature class with elements of creative writing (journalism, poetry, personal essay), essay and

critical reading that explores the rebellious spirit in a variety of texts, including the poetry and novels of the Beat Generation, the 60s era, and the modern era of Rap and Hip-Hop. Students will analyze texts with regard to their historical contexts, common themes, tropes, etc. (PR: ENL 115)

ENL 280-289 – Special Topics. 1-6 Credits. Study of content not normally covered in other courses. Enrollment with permission of division chair or course instructor. (PR: Permission)

FINANCE AND BANKING (FN)

FN 141 – Real Estate Principles and Practices. 3 Credits. General introduction to real estate as a business and as a profession. Designed to acquaint the student with the wide range of subjects and terminology necessary to the practice of real estate. This introductory course in fundamentals includes the nature of real estate and ownership, principles and concepts of title transfer, title insurance, real estate marketing, financing, leasing, taxation, insurance development, appraising, and state license law.

FN 151 – Principles of Bank Operations. 3 Credits. Fundamentals of bank functions presented in a descriptive fashion so that the beginning banker may acquire a broad perspective of the banking operation so as to prepare for career advancement in the banking industry.

FN 163 – Trust Functions and Services. 3 Credits. Provides a complete picture of the services rendered by institutions engaged in trust business. Gives an introduction to the services and duties involved in trust operations and is intended for all banking majors. Offers a clear distinction between business and legal aspects of trust functions. (PR: FN 151)

FN 231 – Business Finance. 3 Credits. This course will focus on the methods of financial analysis. Emphasis is given to the time value of money, evaluation of financial statements, international issues, the stock market, investing, and consumer credit issues. (PR: AC 103; AC 108; AC 201; or ACC 215)

FN 248 – Real Estate Law. 3 Credits. Study of the principles of law governing interests in real estate including acquisition, encumbrance, transfer rights and obligations of parties, and state and federal regulations thereof. This course is approved as a prerequisite for licensure examination as a salesperson by the West Virginia Real Estate Commission.

FN 250 – Computer Applications to Banking. 3 Credits. Study of software programs applicable to current banking systems. (PR: IT 101 or IT 101E)

FN 251 – Consumer Lending. 3 Credits. This course provides an overview of consumer credit and an in-depth look at consumer credit products and services, the consumer lending process and consumer credit administration. (PR: FN 151)

FN 252 – Law and Banking. 3 Credits. Introduction to rules of American law that underlie banking. Topics include jurisprudence, the court system and civil procedure, contracts, quasi-contracts, property, torts and crimes, agencies, partnerships, corporations, sales of personal property, commercial papers, bank deposits and collections, documents of title, and secured transactions. Emphasis is on the Uniform Commercial Code. (PR: FN 151) (Offered Fall Semester only)

FN 254 – Bank Investments. 3 Credits. Describes the primary reserve needs of commercial banks. Sources of reserves and their random and cyclic fluctuations are analyzed in relation to their influence on investment policy. Included is a study of yield changes as they affect a bank's long-term holdings. (PR: FN 151)

FN 258 – Home Mortgage Lending. 3 Credits. Designed for mortgage loan offices from the viewpoint of developing a sound mortgage portfolio. Overview of the mortgage market, acquisition of a mortgage portfolio, mortgage plans and procedures, mortgage loan processing and servicing, and obligations of the mortgage loan offices in portfolio management are covered. (PR: FN 151)

FN 259 – Commercial Lending. 3 Credits. This course provides a conceptual framework for the study of commercial lending. It focuses on the organization of this business, its contribution to bank profitability and the commercial lending process. (PR: FN 151)

FN 264 – Analyzing Financial Statements. 3 Credits. Acquaints student with basic considerations in statement analysis, details of financial statements, basic ratios, analysis of internal comparison, analysis by external comparison, consolidated statements, budgets and projections. (PR: AC 108 and FN 151)

HEALTH INFORMATION TECHNOLOGY (HIT)

HIT 201 – Health Information Technology I. 3 Credits. Introduction to the health information and medical assistant profession. Emphasis on health record design, content, and analysis. (PR: Admission to HIT or MA program and CR: HIT 201L) (Offered Fall Semester only)

HIT 201L – Health Information Technology I. Lab. 1 Credit. Lab setting with emphasis on health record design, content, analysis, release and completion. (PR: Admission to HIT or MA program and CR: HIT 201)

HIT 202 – Health Information Technology II. 3 Credits. Continuation of HIT 201 with emphasis on management of health record departments, record completion, record retention, and release of information. Includes study of indexes and registers. (PR: HIT 201 and HIT 201L and CR: HIT 202L) (Offered Spring Semester only)

HIT 202L – Health Information Technology II Lab. 1 Credit. Lab setting with emphasis on management of health record departments, record completion, record retention and release of information. Includes use of indexes and registers. (PR: HIT 201 and HIT 201L and CR: HIT 202)

HIT 203 – Basic ICD-9-CM Coding. 4 Credits. Introduction to various classification systems with an in-depth study of ICD-9-CM coding principles and techniques. Review of coding practices under the Medicare payment system. (PR: Admission to HIT CCS Program or Permission)

HIT 204 – Advanced Coding Concepts. 4 Credits. Continuation of HIT 203 with emphasis on inpatient coding and CPT coding using patient records. Includes sequencing, DRG determination, and optimization techniques. (PR: HIT 203)

HIT 206 – Hospital Rates & Percentages. 2 Credits. An in-depth study of various hospital rates and percentages including bed occupancy rates, census, death rates, and infection rates. Includes data presentation and display methods. Also includes healthcare services and statistical terms. (Offered Fall Semester only)

HIT 208 – Quality Improvement in Healthcare. 2 Credits. Provides student with skills necessary to evaluate the quality of care and potential for liability in various healthcare settings. Emphasis on evaluating healthcare in light of accrediting and licensing requirements. (Offered Spring Semester only)

HIT 210 – Computerized Health Information System. 2 Credits. Evaluation of hardware and software components of computers for health information systems. Emphasis on computerized health records, record linkage, data sharing and methods of controlling accuracy and security. (Offered Fall Semester only)

HIT 212 – Health Information Tech Seminar. 2 Credits. Students learn methods of preparing resumes and interviewing techniques. Provides a comprehensive review for the RHIT examination. (PR: HIT 201, 201L, 202, 202L, 203, 204, 206, 208, 210)

HIT 214 – Directed Practice I. 1 Credit. Places the student in a health care facility providing the opportunity for the practical application of classroom knowledge and skills. (CR: HIT 201)

HIT 215 – Directed Practice II. 2 Credits. Places the student in a health care facility providing the opportunity for the practical application of classroom knowledge and skills. Continuation of Directed Practice I. (PR: HIT 214 and CR: HIT 202)

HIT 217 – Coding for Certified Coding Specialist. 3 Credits. Coding with emphasis on advanced outpatient and CPT coding.

HIT 218 – Directed Practice III. 2 Credits. Places the student in a healthcare facility providing the opportunity for the practical application of classroom knowledge and skills. Continuation of Directed Practice II. (PR: HIT 203 and 204)

HIT 220 – Coding for CCS Exam. 3 Credits. This class is a review and preparation for students taking the Certified Coding Specialist Exam through the American Health Information Management Association. (PR: Completion of CCS courses)

HIT 280 –283 – Special Topics. 1-4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator of course instructor.)

HOSPITALITY MANAGEMENT (HM)

HM 101 – Travel, Tourism, & Hospitality Industry. 3 Credits. This course discusses career opportunities in various hospitality segments including hotels, restaurants and tourism operations. The importance of the different hospitality segments and how they are interrelated and interdependent will be emphasized.

HM 137 – Trends in the Hospitality Industry. 3 Credits. This course provides an examination of issues and topics affecting the hospitality industry. Current and future trends in the industry will be discussed. Possible topics include but are not limited to technological advancement, gaming and casinos, interest marketing and industry globalization.

HM 145 – Hotel Front Office. 3 Credits. This course presents a systematic approach to hotel front office procedures by detailing the flow of business. This course examines the various elements of effective front office management and covers in detail the procedures and duties of the manager, desk agent, night auditor, reservations, credit and cash handling. Interdepartmental roles are also discussed.

HM 155 – Hospitality Information Systems. 3 Credits. This course examines the use of information systems and e-commerce in the hospitality industry. A diverse sampling of industry examples will illustrate the influence of technology on management and customer service. (PR: IT 101)

HM 210 – Human Resources & Diversity Management. 3 Credits. An introduction to hospitality human resources providing an overview of hospitality operations and supervision. The food service manager's role in human resources, recruiting and hiring food service employees, training and developing employees, and special challenges in food service management are explored.

HM 220 – Managing Catering Operations. 3 Credits. This course will consider the essential aspects of catering operations in the food service industry. It will include an overview of banquets and catering, food service and menu development, menu design, using computers, and marketing in catering management.

HM 222 – Rooms Division Management. 3 Credits. This course will focus on the rooms division of a hotel, including housekeeping, engineering, concierge and front office. All aspects of these departments will be emphasized in this course. (PR: HM 145)

HM 230 – Facilities Operations Management. 3 Credits. An overview of project planning, food service design and maintenance, work area organization and layout, facilities engineering, and interior design and layout of the culinary establishment.

HM 240 – Introduction to Vineyards and Breweries. 3 Credits. This course introduces the history of alcoholic beverages, why beverages were created, and how they spread across cultures and socioeconomic lines. The earliest and the latest versions of fermentation, aging, brewing, and rectification will be discussed. The course also introduces wine making, major wine names and regions, proper wine service and accessories, wine storage guidelines, types of beers, beer making basics and the importance of ingredients, types of distilled spirits and how they are made. (PR: HM 101)

HM 250 – Managing Hospitality Marketing. 3 Credits. This course reviews marketing concepts as they apply to the hospitality industry. It will explore market research, market analysis, selling, pricing and the development of marketing plans.

HM 285 – Legal Aspects of Hospitality Management. 3 Credits. An overview of hospitality law, operations and civil rights, and food service and hotel operators' liability. Considers maintaining security, legal employment, contracts, property rights, forms of hospitality business and the courts system and working with lawyers.

HM 299 – Internship/Apprenticeship. 3 to 6 Credits (CR/NC). Places the student in a work situation in order to gain practical work experience prior to seeking permanent employment. Correlates classroom instruction with real-world experience. (PR: Permission)

HUMANITIES (HMN)

HMN 120 – Introduction to Theater. 3 Credits. This course is designed to further an understanding and appreciation of the elements of drama. Students will explore the cultural and historical perspectives of theatre through an examination of the major periods of dramatic literature, from the Greeks to modern Broadway. Students will examine the role of the actor, director, playwright, designer, technician, and audience in a theatrical production. Class consists of lecture/discussion, group activities, and video examples that supplement course content.

HMN 130 – World Religions. 3 Credits. This course is a general study of the excerpts of world scriptures. The progression of world scriptures keeps religions together in their family groups and goes in order of historical development.

HMN 160 – Global Connections: Discover Africa. 3 Credits. This course is designed to provide students with understanding of the diversity found in the world in terms of values, beliefs, ideas, and world views by the example of African and American cultures. The course will also help students to acquire some basic communication skills in Swahili language and introduce them to the intercultural communication concepts needed to interact effectively with African people.

HMN 165 – Global Connections: Discovering Russia. 3 Credits. This course is designed to provide students with understanding of the diversity found in the world in terms of values, beliefs, ideas, and world views by the example of Russian and American cultures. The course will also help students to acquire some basic communication skills in Russian language and introduce them to the intercultural communication concepts needed to interact effectively with Russian people.

HMN 166 – Global Connections: Discovering China. 3 Credits. This course is designed to provide students with understanding of the diversity found in the world in terms of values, beliefs, ideas, and worldviews by the example of Chinese and American cultures. The course will also help students to acquire some basic communication skills in Chinese language and introduce them to the intercultural communication concepts needed tointeract effectively with Chinese people.

HMN 235 – Leadership Development Studies. 3 Credits. This course provides students the opportunity to explore the concept of leadership while developing and improving leadership skills. Integrated humanities readings, experiential exercises, films and contemporary readings are used. (PR: COM 111 or ENL 101, ENG 101)

HMN 280 – 289 – Humanities Special Topics. 1 to 6 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of division associate dean or course instructor)

INDUSTRIAL SUPERVISION AND MANAGEMENT (ISM)

ISM 133 – Principles of Supervision & Management. 3 Credits. Fundamental principles of administrative, staff, and operating management with organizational structures, operative procedures, and systems emphasized. Includes responsibilities, duties, and relationships of supervisors and leaders. (Offered Spring Semester only)

INFORMATION TECHNOLOGY (IT)

IT 099 – Self-Paced Developmental Computer Technology. 3 Credits (CR/NC). This course will be a self-paced class designed for students who have little computer experience. The course will cover the basic concepts of computer hardware and software. Once the student gains confidence and experience, he/she will be able to develop a PowerPoint presentation demonstrating basic computer concepts. The class will have exercises in word processing, spreadsheets, electronic presentations, electronic mail and the Internet.

IT 100 – Careers in Information Technology. 3 Credits. This course is designed to assist the student in recognizing and identifying specific information technology careers with respect to his/her individual interests and skills. The courses and careers offered by MCTC are examined and explored.

IT 101 – Fundamentals of Computers. 3 Credits. An introduction to computers and the fundamentals of operating systems and software programs. Provides hands-on experience with computer applications including word processing, spreadsheets, electronic mail, and the Internet.

IT 107 – Fundamentals of the Internet. 3 Credits. This course deals with fundamentals of the Internet. Topics considered include electronic mail, sending and receiving data across networks, and navigating the Internet. Also included are topics on business and research on the Internet.

IT 110 – Computers for Interior Design. 3 Credits. This course serves as an introduction to the concepts, structure, and methodologies of various digital media tools, such as Abobe Systems, Creative Suit 3: Photoshop, Illustrator Flash, and InDesign with a basic introduction to web publishing (Dreamweaver) and video creation. The course also reinforces the principles and foundations of art and design (line, color, composition, and ideation) through the use of digital media as a creative tool for art, communication, and expression.

IT 115 – Introduction to BASIC. 3 Credits. Use of the computer to teach the Visual BASIC language from a problem-oriented approach. Emphasis on the professional way to design and write programs with computers. (PR: IT 101)

IT 120 – Operating Systems I. 4 Credits. Introduction to multi-user, multitasking network operating systems. Focus on installation procedures, security issues, and troubleshooting. (PR: IT 101)

IT 131 – Introduction to Networking. 4 Credits. Introduction to Networking focuses on network terminology, protocols, and standards, Ethernet LAN technologies, introductory WAN technologies, TCP/IP addressing, cabling, and basic routing principles. (PR: IT 101 and CR: IT 141)

IT 141 – Networking Systems II. 4 Credits. This course is the second in a series of four designed to prepare the student to pass the CCNA exam. Content includes the review of semester 1 concepts, routing theory, router components, router start-up and set-up, router configuration, IOS, TCP/IP addressing and routing protocols. (PR: IT 131 or CR: IT 131)

IT 150 – Applications to Spreadsheets. 3 Credits. Application of current spreadsheet software to the solution of business problems. Emphasis on numerical analysis, forecasting, and business graphics. (PR: IT 101)

IT 160 – Geographic Information System Concepts. 3 Credits. This course introduces GIS application software and its uses. The course takes a hands-on approach to teaching how to create, edit, and manipulate georeferenced spacial and tabular data. It provides an introduction to geospatial concepts and tools for persons presenting data in maps, charts and reports. It introduces the student to the use of image processing and remote sensing technologies in his or her career fields.

IT 165 – Spatial Analysis & 3D Modeling. 3 Credits. This course will demonstrate how remote sensing and GIS integration within a database of imagery for multistage, multivariate sampling, and geobiophysical modeling, involving modeling systems and environmental development, may be used across the world wide web.

IT 171 – Introduction to Gaming I. 3 Credits. This course will introduce computer game theories, methods and practice. We will utilize Macromedia Flash to create web-based interactions and games at the beginner to intermediate level. Assigned readings and projects will cover various aspects of computer game production, thought and application.

IT 210 – Networking Administration I. 3 Credits. This is an introductory course designed to provide individuals who are new to Microsoft Windows 2003 with the knowledge necessary to understand and identify the tasks involved in supporting Windows 2003, with the focus on networking concepts and how they are implemented. (PR: IT 270 and IT 276 and CR: IT 211, IT 216, and IT 217)

IT 211 – Networking Administration II. 3 Credits. This course provides students with the knowledge and skills necessary to install and configure Microsoft Windows 2003 Professional on stand-alone computers and on-client computers that are part of a workgroup or a domain. In addition, this course provides the skills and knowledge necessary to install and configure Windows 2003 Server to create, file, print, and Terminal servers. (CR: IT 210, IT 216, and IT 217)

IT 212 – Publishing on the Internet. 3 Credits. This course will familiarize the student with issues related to publishing on the Internet. Topics covered include basic design skills, multimedia issues, and development of web pages. (PR: IT 107)

IT 213 – Web Graphics/Design. 3 Credits. Explores the use of a variety of tools and computer graphics techniques to produce professional graphic designs. Utilizes various hardware and software to create visually-pleasing and professional-looking graphics for web pages.

IT 215 – Advanced Programming. 3 Credits. This course provides advanced Visual BASIC programming concepts and skills applied to problem-solving situations. (PR: IT 115)

IT 216 – Networking Administration III. 3 Credits. This course provides students with the knowledge and skills necessary to implement, maintain and troubleshoot a Microsoft Windows Server network infrastructure. (CR: IT 210, IT 211, and IT 217)

IT 217 – Networking Administration IV. 3 Credits. This course provides students with the knowledge and skills necessary to install, configure and administer Microsoft Windows Active directory services. The course also focuses on implementing Group Policy and understanding the Group Policy task s required to centrally manage users and computers. (CR: IT 210, IT 211, and IT 216)

IT 219 – Networking Administration V. 3 Credits. This course provides students with the knowledge and skills necessary to design a Microsoft Windows 2003 directory services infrastructure in an enterprise network. Strategies are presented to assist the student in identifying the information technology needs of an organization and then designing an Active Directory structure that meets those needs. (PR: IT 217 and CR: IT 222, and IT 223)

IT 221 – Operating Systems II. 3 Credits. Focus of the course is to provide practical applications of specific system software in multi-tasking environments. Advance operating system concepts are presented from an application programmer's perspective. (PR: IT 120)

IT 222 – Networking Administration VI. 3 Credits. This course provides students with the information and skills needed to create a networking services infrastructure design that supports the required network applications. Each module provides a solution based on the needs of the organization. (PR: IT 217 and CR: IT 219 and IT 223)

IT 223 – Networking Administration VII. 3 Credits. This course provides students with the knowledge and skills necessary to select and design a strategy to migrate from Microsoft Windows NT Server 4.0 directory services infrastructure to a Microsoft Windows 2003 Active Directory service infrastructure by describing the planning processes and implications involved. (PR: IT 217 and CR: IT 219 and IT 222)

IT 224 – Fundamentals of Network Security. 3 Credits. This course provides the knowledge and skills necessary to identify network security threats and vulnerabilities, and to respond and recover from security incidents. (PR: IT 217 or MCSA certification)

IT 225 – Fundamentals of Wireless LANs. 4 Credits. This course focuses on the design, planning, implementation, operation and troubleshooting of Wireless LANs. (PR: IT 141 or Cisco Semester 2 with minimum grade of 78%)

IT 226 - Network Security Solutions. 3 Credits. This course focuses on overall security processes including security policy design and management and security features enabled by routers. (PR: IT 241 or Cisco Semester 4 with minimum grade of 78%)

IT 227 – Network Security Firewalls. 3 Credits. Network Security Firewalls focuses on securing and monitoring a network with hardware-based firewalls. (PR: IT 241 or Cisco Semester 4 with minimum grade of 78%)

IT 230 – Network Communications. 3 Credits. Focus of course is to provide practical applications of specific system software in the administration, analysis, and modeling of Local Area Networks (LANs). (PR: IT 120)

IT 231 – Networking Systems III. 4 Credits. Networking Systems III focuses on LAN IP addressing including Variable Length Subnet Masking and configuring RIPv2, single-area OSPF, and EIGRP routing protocols, and Ethernet switching technologies including Virtual LANs (VLANs), the Spanning Tree Protocol (STP) and VLAN Trunking Protocol (VTP). (PR: IT 141 and CR: IT 241)

IT 240 – Internet Data Communications. 3 Credits. This course will concentrate on essential Internet protocols including TCP/IP, HTTP, and Mail Protocol. Service providers, security issues, and dial-up connectivity issues will be explored. This class prepares students for the Comp TIA I-net exam. (PR: IT 107)

IT 241 – Networking Systems IV. 4 Credits. Networking Systems IV focuses on LAN IP addressing and network management techniques and WAN PPP, ISDN, DDR, and Frame Relay connections and protocols. (PR or CR: IT 231)

IT 242 – Advanced Internet. 3 Credits. This course will investigate advanced Internet concepts and state-of-the-art technology in developing web pages. Emphasis will be on design, utilizing current industry standards. (PR: IT 212)

IT 250 – Applications to Databases. 3 Credits. Study of information retrieval and database software. (PR: IT 101)

IT 260 – Integration of GIS and RS Systems. 3 Credits. This course is designed to integrate Geographic Information System (GIS) and Remote Sensing (RS) concepts utilized with GIS and Image Processing software. Various software systems such as ER Mapper, IDRISI / Kilimanjaro, and ArcGIS will be used to illustrate systems integration in solving geospatial problems with technical solutions.

IT 266 – Image Web Server Development. 3 Credits. This course will demonstrate how remote sensing and GIS integration within a database of imagery for multistage, multivariate sampling, and geobiophysical modeling, involving modeling systems and environmental development, may be used across the world wide web.

IT 268 – CCNP 1 – Advanced Routing. 4 Credits. This course is designed to prepare the student to pass the Building Scalable Internetworks (BSCI) exam. Content includes advanced routing using Cisco equipment connected to LANS and WANS typically found at medium to large network sites. Upon completion, the student will be able to implement the appropriate IOS services required to build a scalable routed network. (PR: IT 241 or CCNA certification, and permission)

IT 269 – CCNP 2 – Remote Access. 4 Credits. This course is the second of four designed to prepare the student to pass the Building Cisco Remote Network Access (BCRNA) exam. Content includes WAN cabling, Asynchronous Connections with modems, PPP, Dial-up, ISDN, X.25, Frame Relay Access, network performance with queuing and compression, NAT, Access-control, and emerging remote access technologies. (PR: IT 241 or CCNA certification, and permission)

IT 270 – Computer Repair. 3 Credits. Basic electronic solid-state technology utilized in computers. Emphasis on techniques for isolation and replacement of faulty units. (PR: IT 101 or IT 101E)

IT 271 – Introduction to Gaming II. 3 Credits. This course is a follow-up course to Gaming 1. This course will continue computer game theories, methods and practices. We will utilize Macromedia Flash to create web-based interactions and games at the beginner to intermediate level. Assigned readings and projects will cover various aspects of computer game production, thought and application.

IT 272 – Introduction to 3-D Modular Programming. 3 Credits. This course is a follow-up course to Advanced Programming. This course will continue computer game theories, methods and practices. We will utilize 3-D Gaming Engines, OpenGL Game Programming, and Alice 3.0. These resources will be used to create 3-D games and game environments. Assigned readings and projects will cover various aspects of computer game production, thought and application.

IT 276 – Computer Maintenance. 3 Credits. Emphasis on expanding understanding of and techniques needed to upgrade, troubleshoot, and maintain computer systems and associated components. (PR: IT 270)

IT 278 - CCNP 3 – Multilayer Switching. 4 Credits. This course is to prepare the student to pass the Building Cisco Multilayer Switched Networks (BCMSN) exam. Content includes design criteria for multilayer switched networks, including the current Cisco recommendation for designing a campus network. The network is built from cabling connections to implementing VLANs, Spanning Tree, and routing. After the cable has been built, optimization of the network is made to ensure its availability. (PR: IT 241 or CCNA certification, and permission)

IT 279 – CCNP 4 – Network Troubleshooting. 4 Credits. This course is designed to prepare the student to pass the Cisco Internetwork Troubleshooting (CIT) exam. Content includes diagnosis and troubleshooting of WAN cabling, protocols, advanced routing configurations, switching, asynchronous connections with modems, PPP, Dialup, ISDN, X.25, and Frame Relay access, network performance with queuing and compression, NAT access control, and emerging network technologies. (PR: IT 268, IT 269, IT 278, and permission)

IT 280-289 – IT Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Permission)

IT 299 – Information Technology Internship. 3 Credits. Places the student in a work situation in order to gain practical work experience prior to seeking permanent employment. Correlates classroom instruction with real-world experience. (PR: Permission)

INLAND WATERWAYS (IW)

(Classes are taught at Tri-State Fire Academy)

IW 100 – Deckhand Basic Training. 3 Credits. This is an introductory training course for entry level workers in the inland maritime industry. It covers the unique jargon of the maritime industry, safe working practices, and basic skills such as line throwing, laying wires, and knot tying.

IW 102 – Basic Marine Firefighting. 1 Credit. This is an entry level course for maritime workers designed to teach students the avoidance of fires on board boats and the science and theory of marine firefighting at the awareness level.

IW 103 – First Aid in Remote Locations. 1 Credit. This course provides training in first aid procedures in situations where advanced medical assistance is not readily available.

IW 105 – Ship Construction. 3 Credits. This course provides the student with the general knowledge of modern ship construction techniques that can be applied to loading and stability calculations and to emergency damage control procedures.

IW 110 – Basic and Advanced Marine Firefighting. 6 Credits. This course is designed for maritime personnel who operates vessels of any size in any location. It is a U.S. Coast Guard prerequisite for licensing as a Marine Engineer, and for licensing as a Deck Officer of any vessel of 200 Gross Registered Tons or more. Topics covered include chemistry of fire, theory of firefighting, firefighting equipment, and personal safety. Both classroom and hands-on training are provided, including live fire exercises. Training is conducted in accordance with NPPA regulations. The course is approved by the U.S. Coast Guard and the International Maritime Organization.

IW 202 – Advanced Marine Firefighting. 2 Credits. This course teaches maritime students advanced marine firefighting theory. Students receive classroom instruction on the theory and principles of firefighting and how to properly supervise a ship's crew to put out an on-board fire. Theoretical training will be reinforced through hands-on fire suppression practice on an on-site mock up trainer. (PR: IW 102)

IW 207 – Steersman/Apprentice Mate of Towing Vessels. 6 Credits. This course prepares the student in the academic subjects required for the first Coast Guard license in the progression to Master of Towing Vessels. This course is approved by the U.S. Coast Guard.

IW 215 – Radar Observer (inland). 2 Credits. This course instructs students on how to utilize marine radar to safely navigate on inland waterways. Students learn how to use radar to navigate in good and inclement weather, as well as during periods of limited visibility, and upon discovery of an obstacle, take the appropriate action to avoid a collision. Students taking this course are eligible for a U. S. Coast Guard certification.

INTERIOR DESIGN (ID)

(Classes are taught at Cabell County Career Technology Center)

ID 102 – Introduction to Design. 3 Credits. This foundation course will introduce the visual/formal elements and principles of design as well as a range of problem solving strategies. Working with visual weight, scale, proportion, and contrast will help to further develop skills needed for more advanced design work.

ID 110 – Perspective Drawing Techniques. 3 Credits. This course explores freehand and perspective drawing techniques with an emphasis on accuracy, scale and presentation. It is appropriate for students who wish to increase their drawing skills. It begins with the fundamentals of drawing and works through more complicated drawings with a hands-on approach.

ID 111 – Interior Design Theory. 3 credits. Course will focus on professional practice including procedures for establishing a design business, business principles, communication skills, and professional ethics. Students will be introduced to the elements and principles of design that are related to the living

environment and participate in discussions of the physiological effects that color has on the living space used in residential and commercial design.

ID 112 – Design Graphics. 3 credits. Study of space planning, furniture placement and traffic flow incorporating design concepts of creativity, space, and methodology into a physical space. Interpret architectural symbols, elevations, blue prints, and building codes for both. Executing design concepts of space planning with required specification for special needs and identifying safety considerations for universal design.

ID 115 – Visual Merchandising. 3 credits. The course will concentrate on integration of elements and principles of design to create effective and attractive displays. Students will be involved in model building and visual presentations to create the total image and selling package. Lighting will also be examined and how different types of lighting affect the interior environment. (PR: ID 111)

ID 120 – Advanced Perspective Drawing. 3 Credits. This course explores advanced freehand and perspective drawing techniques with an emphasis on accuracy, scale and presentation. This course is appropriate for students who wish to increase their drawing skill. It begins with the fundamentals of drawing from life and works through two-point perspective drawings in color. The Munsell Color model is studied and applied to perspective renderings. Project work outside the classroom is required, and all projects are developed to completion. (PR: ID 110)

ID 202 – 3-D Design. 3 credits. Intensive study of form and structure in three-dimensional space. Design with emphasis on three-dimensional form. (PR: ID 102)

ID 205 – Interior Design Architecture. 3 credits. Historical study of architectural styles and embellishments from prehistoric through 21st century. Emphasis on interior architecture, architects, designers, cultural backgrounds, and current trends in architecture.

ID 211 – Technical Drawing. 3 credits. This course will focus on human needs in the interior environment using methodology and problem solving techniques. Concentration will focus on floor plans, schematic drawings and elevations on graph paper, vellum and illustration board in pencil and ink and will apply knowledge of line-work, lettering, use of templates, and transfer letters and symbols. Good design principles in kitchen design will also be studied.

ID 212 – Interior Textile Material. 3 credits. Course will examine the origins, qualities, productions, regulations and uses of natural and manufactured fibers; their advantages and disadvantages, and their uses in both residential and commercial spaces.

ID 215 – Floral Design and Application. 3 credits. Exploration of the history of floral design, the use and effects of color and basic elements of design in floral arranging and interpretation of landscape plans. (PR: ID 111)

ID 220 – Window/Wall/Floor Treatments and Decorative Accessories. 3 credits. Course will concentrate on fundamentals in designing, measuring, calculating, fabricating, and installing soft and hard window treatments and appropriate textiles used. It will study the historical background of wall coverings, measurements and estimations in wall coverings, paint, paneling, tile and drywall. Students will study the functional and decorative accessories for residential and commercial use. A chronological study of visual arts in architecture, sculptures, painting, and various media from pre-historic to modern times will be included. The course also covers the production, construction, and calculations and usages of soft and hard floor coverings in residential and commercial interiors. (PR: ID 212)

ID 225 – Furniture Construction/History. 3 credits. The study of wood types used in furniture construction, type and quality of furniture joints, methods and materials used in construction of upholstered furniture and a chronological study of furniture styles and their appropriate textiles from ancient time to present. (PR: ID 212)

ID 280-287 – Special Topics. 1-6 credits. Study of content not normally covered in other courses. Enrollment with permission of program coordinator or course instructor.

ID 299 – Internship. 3 Credits. 90 hours' training in the industry identifying requirements needed for the various careers in the interior design field. (PR: Must complete minimum 48 credit hours in Interior Design program)

KENTUCKY VIRTUAL UNIVERSITY (KYV)

KYV 280-285 – Special Topics. 1 to 4 Credits. Online courses offered through an agreement between Community and Technical College System of West Virginia and Kentucky Virtual University.

LEGAL ASSISTANT (LAS)

LAS 101 – General Law I. 3 Credits. This course is designed to teach the art of legal reasoning and analysis. Course content includes the meaning and function of law, how laws are created and enforced, the state and federal court systems, an overview of civil law and procedures, and jurisdiction.

LAS 102 – General Law II. 3 Credits. Continuation of General Law I, with emphasis on the general areas of law, designed to give an overview of substantive areas of law. Areas covered include: contracts, property law, forms of business, estates and the probate process, family law, criminal law and criminal procedure. (PR: LAS 101)

LAS 103 – Legal Assisting. 3 Credits. Study of the various roles played by paralegals in the legal system and the skills required to work as a paralegal in several major areas of law. Also covered are legal ethics, interviewing and investigation skills, litigation skills, trial preparation and employment information. (CR: LAS 104)

LAS 104 – Legal Ethics. 1 Credit. Introduction to legal ethics, ethical requirements for non lawyer employees and regulation of paralegals/legal assistants. Includes information regarding the process of handling ethics complaints against lawyers and employees. (CR: LAS 103)

LAS 110 – Business Organization & Governmental Regulations. 3 Credits. Procedural information on such topics as corporations, partnerships, agencies, business trusts and other business vehicles. Survey of the fundamental principles of law applicable to each area, including the law of bankruptcy. (PR: LAS 101 or permission)

LAS 209 – Administrative Agency Advocacy. 3 Credits. Techniques of legal interviewing and details of case preparation and presentation before state and federal governmental agencies that allow non-lawyer advocacy. (PR: LAS 102 and LAS 103) (Offered Spring Semester only)

LAS 211 – Legal Research and Writing I. 3 Credits. Basic legal research sources and methods. Techniques of legal analysis with emphasis on specific cases, issues, and research. Students will be introduced to legal writing and use of a law library. (PR: LAS 102) (Offered Fall Semester only)

LAS 212 – Legal Research and Writing II. 3 Credits. Intermediate legal research methods, analysis and writing methods. Court rules and introduction to new research methods. (PR: LAS 211) (Offered Spring Semester only)

LAS 213 – Computer Applications to the Law Office. 3 Credits. Overview of software applications to the law office including calendar, docket control, litigation support, billing, timekeeping, pleadings preparation, legal research, and other applications. (PR: AT 136) (Offered Fall Semester only)

LAS 225 – Bankruptcy Law. 3 Credits. Overview of the substantive law of bankruptcy. Students will become familiar with bankruptcy procedures and gain hands-on experience with bankruptcy tasks. (PR: LAS 102 or permission)

LAS 231 – Estate Planning and Probate Administration. 3 Credits. Overview of the transferring of assets (including trusts, wills and gifts) and a review of typical documents. Includes administration of decedents' estates, including probate procedure, federal and state death and income taxes, and fiduciary (administrators) accounting and responsibilities. (PR: LAS 102 or permission)

LAS 235 – Civil Litigation. 3 Credits. Overview of civil case preparation before trial: including examination of various procedures to be completed and documents to be filed, working up trial documents for counsel's assistance. (PR: LAS 102) (Offered Fall Semester only)

LAS 240 – Criminal Litigation. 3 Credits. Overview of criminal case preparation before trial: including examination of various procedures to be completed and documents to be filed, working up trial documents for counsel's assistance. (PR: LAS 102) (Offered Spring Semester only)

LAS 244 – Law of Domestic Relations. 3 Credits. Prepares the student to undertake tasks associated with the laws of domestic relations: including preparation of documents of complaint, answer and summons; pleas; research reports; conclusions of law; and judgment orders.(PR: LAS 102 or permission) (Offered Fall Semester only)

LAS 248 – Medical Law. 3 Credits. Introduction to the basic concepts of tort liability of physicians, surgeons and health professionals and vicarious liability of hospitals. (PR: LAS 101 or permission)

LAS 250 – Employment Law. 3 Credits. The study of the law in the workplace as it applies to the regulation of employment, employer-employee relationship, Title VII of Civil Rights Act of 1964, affirmative action, testing evaluations, privacy, ERISA, workers compensation and the Fair Labor Standards Act. (PR: LAS 101 for Legal Assistant students; MG 233 for management tech students or permission) (Offered Spring Semester only)

LAS 255 – Interviewing and Investigation. 3 Credits. Study and practice of job duties for paralegals in interviewing and investigation of civil and criminal cases. Material covered includes initial and follow-up interviewing techniques for clients and witnesses, development of interview materials, and investigation techniques for civil and criminal cases. This course has an information literacy focus.(PR: LAS 102, LAS 103, or permission)

LAS 260 – Legal Nurse Consulting. 3 Credits. To provide nurses with the legal background and skills to provide consulting services (medical records/ treatment review) to attorneys, workers' compensation offices, vocational rehabilitation, Social Security Administration, insurance companies, HMO's and various state or federal agencies. Also, structure of the West Virginia judicial system and ethics (as they apply to nurse paralegals and lawyers) and life care plans. (PR: Permission)

LAS 280 – 283 – Special Topics. 1-4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor.)

LAS 290 – Internship. 1-6 Credits (CR/NC). Places student in work situation for a specific period for work experience prior to employment. Correlates classroom instruction with experience. (PR: Permission)

MACHINIST TECHNOLOGY (MT)

(Classes are taught at Robert C. Byrd Institute for Advanced Flexible Manufacturing)

MT 105 – Industrial Safety. 2 Credits. An introductory course designed to develop safe workplace practices and to become familiar with OSHA standards. Students will be required to demonstrate safe handling of work materials, operation of machines and tooling, and storage and disposal of hazardous materials.

MT 121 – Introduction to Machinery. 4 Credits. A hands-on laboratory experience to acquaint students with machinery and the industrial environment. In this course the application of skills and knowledge of machine tool processes are stressed. (PR: Permission)

MT 200 – Blueprint Reading. 3 Credits. Students will develop the ability to read standard and GDT orthographic blueprints as required in a machine shop.

MT 205 – Precision Measurement. 3 Credits. Students learn to identify select and use measuring instruments used in machining.

MT 215 – Metalworking Theory & Application. 12 Credits. Students will become skilled in the use of machines and processes utilized in metalworking. They will develop a basic knowledge of CNC machining and programming, and the calculation of speeds and feeds.

MT 223 – Advanced Technical Specialization. 6 Credits. The application of skills and knowledge used in turning, milling, and drilling operations with emphasis on specific types of machining. (PR: MT 215)

MT 233 – NIMS Credentialing. 6 Credits. This course will acquaint students with the National Institute for Metalworking Skills (NIMS) and prepare them for the national credentialing examination. Student will be credentialed in at least 3 areas recognized by the Institute before they are graduated from the Machinist Technology program. (PR: Permission)

MT 289 – Internship for Machinist. 6 Credits. The student, work supervisor, and instructor will develop a training plan to ensure that activities are applicable to the student's career goals. Completion of this internship will require the student to perform machinist-type duties. The experience will be monitored by the instructor. (PR: Permission)

MAINTENANCE TECHNOLOGY (MTEC)

MTEC 101 – Machine Shop I. 3 Credits. This course designed to teach students the proper use of power-operated shop equipment including metal turning lathes, milling machines, shapers, saws, and drills as well as standard safety practices and operating procedures.

MTEC 105 – Fundamentals of Industrial Maintenance. 3 Credits. This course is designed to teach students the knowledge and skills necessary to enter the field of industrial maintenance. Students will learn about workplace safety, measurement and calculation, proper use of tools, fasteners, lubrication, bearings, mechanical alignment, and vibration.

MTEC 110 – Print and Schematic Reading. 3 Credits. Teaches students the basics of reading mechanical prints, schematics for electrical/electronic circuits, hydraulic/pneumatic circuits, and piping schematics.

MTEC 171 – Hydraulic and Pneumatic Systems. 3 Credits. Teaches students the principles and practical application of pneumatic and hydraulic systems.

MTEC 250 – Electricity Basics. 3 Credits. This course is designed to teach the principles of electricity, AC circuits, series and parallel circuits, resistors, Ohm's Law, magnetism, electrical measurement, and DC circuits.

MTEC 251 – Electrical Maintenance. 3 Credits. Teaches students the knowledge and base technical skills for entry into the field of electrical industrial maintenance. Students will learn basic electrical theory and calculations; how to use electrical tools, instruments, and equipment; how to read electrical schematics and diagrams; and how to safely work with electrical systems.

MANAGEMENT (MG)

MG 101 – Introduction to Business. 3 Credits. Study of the nature of business activities and problems regarding ownership, organization, management and control. Course content is designed to emphasize business vocabulary and explore personal characteristics and training most desirable for various areas of specialization in business.

MG 105 – Introduction to Workplace Training. 3 Credits. This course will provide an overview of the skills required in training groups and individuals in the workplace. How to promote a positive training climate and a needs analysis will also be discussed.

MG 181 – Retailing. 3 Credits. Introduction to retailing with managerial and supervisory insights. Includes topics of franchising, location and layout, organization, sales, and customer services.

MG 202 – Business Organization & Management. 3 Credits. Designed to develop an understanding of management concepts through the study of planning, organizing, leadership and control functions. (PR: MG 101 or MG 101E)

MG 203 – Managing Call Center Teams. 3 Credits. Provides skills on how to build effective work teams within the call center environment. (PR: SS 201 or MG 202)

MG 205 – Call Center Environment/Technology. 3 Credits. This course covers call center technology equipment and systems. Students will learn telecommunications terminology, theory, infrastructure and troubleshooting techniques. Students will explore telecommunications technology that supports web-enabled multimedia call centers in the information age. (PR: IT 101 or IT 101E)

MG 207 – Managing Call Center Data. 3 Credits. Focus on how to collect, interpret and manage data that is generated in a call center environment. Students will learn how to define and interpret data from efficiency, productivity, attendance and log-in reports. Forecasting and budgeting techniques will also be discussed. (PR: MAT 210)

MG 209 – Occupational Safety. 3 Credits. This course will provide students with a basic understanding of the nature of occupational safety, accident prevention and loss reduction. Topics to be discussed include accident causation, strategies for minimizing injuries and losses, sources of assistance in resolving safety problems, and Occupational Safety and Health Act (OSHA) standards, policies, and procedures.

MG 226 – Commercial Papers & Transactions. 3 Credits. Focus on various business forms and laws governing businesses and business transactions. Students learn to analyze business transactions such as those dealing with sales, insurance, real estate, bankruptcy, and financial statements, with emphasis on commercial documents.

MG 233 – Personnel Management. 3 Credits. Designed to acquaint the student with principles of managing personnel in business. Personnel recruitment, selection, and evaluation; job analysis and evaluation; employee retention; wage and salary administration; and labor relations and legislation are studied. (PR: MG 101; MG 101E; or Permission)

MG 240 – Business Ethics. 3 Credits. The purpose of this course is to provide students with a framework for effective decision making when they face ethical issues in business. (PR: COM 111 or permission)

MG 253 – Bank Management. 3 Credits. Covers new trends that have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced banks with a working knowledge of bank management. The case study technique is utilized as an effective management learning technique. (PR: FN 151)

MG 280-287 – Special Topics. 1-4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of division director or course instructor.)

MG 296 – Integrated Business Strategies. 3 Credits. A capstone course in which students work in teams, using their skills and knowledge to develop and implement simulated business strategies. (PR: Students must have completed at least 45 credit hours in their program)

MG 299 – Cooperative Work Experience. 1-9 Credits (CR/NC). Supervised on-the-job training for business students. (PR: Permission)

MANUFACTURING ENGINEERING TECHNOLOGY (MFE)

MFE 120 – Introduction to Manual Machining. 4 Credits. This course introduces the student to fundamental manufacturing and machining concepts and skills. Students will learn and take part in precision measurement using calipers, micrometers, and height gauges. Students will plan and execute the machining processes and select correct tooling for manufactured parts for an engine lathe and knee mill. A solid balance of lecture and hands-on in the shop manual machining experience prepares the student for advanced coursework. (PR: MAT 145 or Permission) (Offered Fall Semester only)

MFE 220 – Computer Aided Design I. 4 Credits. This course provides students with a solid foundation in reading and creating engineering drawings (blueprints) to recognized ANSI standards. Drawing standards multi-view, section and auxiliary views, dimensioning, and GD&T will be at the heart of blueprint reading. The student will learn 2D computer aided design techniques to produce engineering drawings of manufactured components to the ANSI standard. This course introduces students to 3D solid modeling software and design. (PR: Permission) (Offered Fall Semester only)

MARKETING (MK)

MK 130 – Fundamentals of Marketing. 3 Credits. Study of the marketing process as it relates to the problems and policies of business enterprises. Attention is given to the role and significance of middlemen, evaluation of consumer needs, price determination, promotional and sales strategies and governmental regulations.

MK 210 – Customer Service. 3 Credits. A study of how to deliver excellent customer service. Students will learn how to maintain control over troublesome internal and external customer situations, methods for reducing negative stress, the importance of ethics in the work environment, and techniques for motivating employees to provide excellent customer service. (PR: COM 111 or ENG 111)

MK 255 – Bank Public Relations and Marketing. 3 Credits. Study of the basis of public relations, both internal and external, and seeks to explain the why, what and some of the how of public relations and marketing. (PR: FN 151)

MK 279 – Advertising and Sales Promotion. 3 Credits. This course covers advertising and promotion methods and procedures. Includes techniques of planning, budgeting, evaluation, and selection of media; steps in producing an advertisement; as well as methods of determining what, how and when to promote.

MASSAGE THERAPY (MAS)

(Classes are taught at Mountain State School of Massage in Charleston)

MAS 205 – Anatomy and Physiology for Massage Therapy. 11 Credits. This course provides a general study of the normal structure and function of the human body, with emphasis being placed on the skeletal and muscular systems, the interrelationship of the organs and the ability of the human body to adapt to the environment. Physiological effects of massage therapy will be highlighted in this course.

MAS 210 – Orientation, Awareness Skills, Business and Research. 4 Credits. This course provides the future massage therapist with a variety of skills needed to have a successful career. The focus of the class is to present information on effective communication, professionalism, ethics, business strategies and methods of locating research literature.

MAS 215 – Bodywork I. 6 Credits. Bodywork I introduces the student to various types of massage and therapeutic modalities. This course emphasizes Swedish massage, Seated Chair Massage and Hydrotherapy. Proper techniques, body mechanics and situational circumstances with which to utilize the techniques are the focus of this class.

MAS 220 – Bodywork II. 5 Credits. This course affords the student a deeper understanding of theories, therapies, and bodywork modalities pertaining to the profession of massage. The class focuses on Bodywork Theory, Deep Tissue Therapies and Neuromuscular Therapy, providing the student with a balanced knowledge base and preparing the student for taking the National Certification Examination for Therapeutic Massage.

MAS 225 – Pathology for Massage Therapy. 5 Credits. Pathology is the study of the structural and functional changes of an organism due to disease. Students learn to become familiar with common pathological diseases that massage therapists encounter, potential challenges associated with these illnesses and understand that it is not the responsibility of the massage therapist to diagnose these various conditions.

MAS 230 – Kinesiology for Massage Therapy. 5 Credits. This course integrates the massage therapy student's basic knowledge of human anatomy and physiology with the study of the muscles that coordinate movement and posture in the human body. Biomechanical principles of the muscles and joints are also covered.

MAS 235 – Student Clinic-Integrative Massage. 3 to 4 Credits. This course provides the student an opportunity to work with patients in a supervised environment. Interpreting patient medical information, developing treatment plans, practicing proper communication skills and utilizing the various techniques learned. The class offers the opportunity to build the confidence level and professionalism of the student.

MATHEMATICS (MAT)

MAT 080 – Introduction to Pre-Algebra. 2 Credits. This course id designed to improve your skills in: number concepts, whole numbers and integers, decimals, fractions, order of operations, application problems, ratios, percents, area, and volume. Emphasis will be placed on skill mastery in preparation for future math courses. (PR: Placement in MAT 080 is determined by ACT score below 10 or placement test)

MAT 095 – Fundamental Mathematical Concepts. 3 Credits (CR/NC). A course designed to prepare students for non-algebraic 100 level math courses. Topics include fractions, decimals, percents, order of operations, linear equations, quadratic equations, graphing, using formulas, geometry applications, exponents, multiplication rules, exponent rules, set operations, and basic probability. This course is a prerequisite for those students intending to take MAT 115 or MAT 150. (PR: MAT 085, MAT 096, ACT 16, or PLAC 097 and CR: ASC 099 1 credit hour)

MAT 097 – Intermediate Algebra. 3-5 Credits (CR/NC). A course designed to improve students' skills in: first-degree equations and inequalities, polynomials, rational expressions, exponents, radicals, quadratic equations, linear equations in two variables, systems of linear equations and functions. Emphasis will be placed on skill mastery in preparation for future math courses. (PR: MAT 085, MAT 096, ACT 16, or PLAC 097 and CR: ASC 099 1 credit hour)

MAT 098 – Developmental Geometry. 3 Credits (CR/NC). A basic presentation of geometry including constructions, measurement, lines, logic, angles, polygons, solids, right triangles and trigonometry, area, and volume. Students will be able to interpret geometry algebraically, numerically, and verbally. Graduation requirement is increased three hours for students who complete this course.

MAT 115 – Business Mathematics. 3 Credits. Mathematical operations applied to negotiate instruments, payroll, discounts, interest, merchandising, commissions and other business topics. Calculators will be used in making computations. (PR: MAT 097; MAT 097E; ACT 19 or PLAC 100)

MAT 133 – Math for Applied Health. 5 Credits. This course presents basic math and algebra principles used daily in the applied health careers. Topics covered will include the metric system with focus on unit conversions by proportionalities and dimensional analysis; representations of linear functions verbally, graphically, numerically, and algebraically; exponential growth and decay; logarithmic functions; analysis of proportionality of quantities; and formula manipulation.

MAT 135 – Mathematics for Machinist Technology. 6 Credits. Designed to develop understanding of mathematical concepts required of skilled employees in the machine trade and related occupations. (PR: Permission)

MAT 137 – Culinary Math 5 Credits. This course presents basic math principles used daily in food service and hospitality careers. Along with mathematical principles, this course utilizes word problems and examples exclusive to food service including, the study of recipe conversion and yields, production formulas, weights and measures, the metric system and recipe and food cost analysis. Skills developed in this course are critical to the successful control of food costs and effective culinary management.

MAT 139 – Math for Police Science. 5 Credits. A course designed to improve the police officer's basic math and algebra skills including applications for accident reconstruction. (PR: Permission)

MAT 145 – Applications in Algebra. 3 Credits. Algebraic applications needed by technicians including equation solving, inequalities, functions, quadratic equations, systems, logarithmic functions, graphing and statistics. (PR: ACT 19; MAT 097; or PLAC 100)

MAT 146 – Applications in Trigonometry. 3 Credits. This course content covers applications of trigonometric functions, graphs, and identities, solutions of right and oblique triangles, vectors, inverse trigonometric functions and complex numbers. (PR: MAT 145)

MAT 150 – Applied Professional Mathematics. 3 Credits. Content consists of marketplace mathematics, introductory statistics, the mathematics of sets, prediction, mathematical relationships, optimization, geometry, graph theory and introductory logic. (PR: ACT 19; MAT 097; MAT 097E or PLAC 100)

MAT 155 – Mathematics for Electronic Technology. 3 Credits. This course is intended for those students who intend to pursue a degree in the electronics field. It is designed to provide a practical working knowledge in the areas of arithmetic, measure, algebra, geometry, and trigonometry that will enhance problem solving.

MAT 205 – Technical Calculus. 3 Credits. Contents of this course cover determinants, theory of equations, applications of differential calculus and applications of integral calculus. (PR: MAT 146 or MAT 146E)

MAT 210 – Statistics for Business and Industry. 3 Credits. An introduction to basic statistical concepts and applications. Content includes the nature of statistics and data; data descriptions and representations, basic probability, random sampling, distributions, non-parametric methods, time series and quality control. (PR: MAT 115; MAT 115E MAT 145; MAT 145E; MAT 150 or MAT 150E)

MAT 215 – Applied Discrete Mathematics. 3 Credits. This course is an introduction to logic, set theory, number theory, combinatorics, and Boolean algebra. The course will provide foundation for students majoring in computer science courses and electronics. (PR: MAT 135; MAT 145 or MAT 145E)

MAT 280 – 282 – Special Topics. 1-4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor)

MAT 283 – Special Topics. 1-4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor)

MEDICAL ASSISTING (MA)

MA 201 – Medical Assisting Techniques I. 3 Credits. Introduction to clinical skills performed in medical offices with emphasis on asepsis, health history, physical examinations, and assessment, vital signs, and infection control, common diseases, conditions and selected clinical skills will be emphasized. (PR: Admission to program)

MA 202 – Medical Assisting Techniques II. 4 Credits. Advanced level of physical assessment, medical history, surgical procedures, common diseases, conditions and selected clinical skills will be emphasized. (PR: MA 201)

MA 203 – Medical Lab Techniques. 3 Credits. This course covers the necessary OSHA regulations governing safety and CLIA regulations for laboratory testing. It will cover the fundamentals of laboratory procedures in a clinical laboratory or physician's office setting. (Offered Spring Semester only)

MA 204 – Physician's Office Medical Coding. 3 Credits. Introductory course in the CPT-4 and ICD-9-CM coding systems as they relate to the physician office and outpatient environments.

MA 205 – Medical Office Claims Procedures. 3 Credits. Utilize coding systems as they apply to claims submission and accurate reimbursement from Medicaid, Medicare and third party payers.

MA 206 – Medical Office Procedures for Medical Assistants. 3 Credits. This class is designed to cover entry-level administrative and general competencies as designated by the American Association of Medical Assistants so that the medical assistant student will be able to perform those functions specific to the medical office, including but not limited to administrative and clerical functions, medical accounting, insurance procedure and other functions as they relate to a medical office or ambulatory care setting.

MA 207 – Medical Office Internship. 3 Credits (CR/NC). Supervised learning experience in Medical Assisting designed to provide students with an opportunity to obtain technical experience under the supervision of competent practitioners. (PR: MA 201, 202, 203, 204, 205)

MA 280 – Special Topics. 1-4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor)

MINING INFORMATION TECHNOLOGY (MIT)

MIT – Electrical Safety for Coal Miners. 2 Credits. (CR/NC) This introductory course teaches coal inspection personnel with limited or no electrical experience to be able to properly inspect electrical components of coal mining machinery. Students will learn practical methods and techniques to be used in identifying electrical hazards and teach the appropriate enforcement actions to be taken to prevent accidents.

MIT 226 – Mine Blasting Safety. 1 Credit (CR/NC). This course is intended to provide students with the most recent blasting techniques, trends and developments used in the mining industry. In this course, students will learn how to apply their knowledge of blasting techniques to help advise mining operations in safety procedures.

MIT 275 – Mine Safety Inspector On-the-Job Training. 1-12 Credits. This course consists of supervised paid OJT, internship, or practicum performed in a mine safety inspecting setting while working for the U.S. Department of Labor. Students will apply their knowledge in real life situations by performing safety inspections of surface and/or underground mine sites, investigating accidents, reporting violations, and assessing penalties for non-compliance. On-the-job training and attainment of program learning outcomes will be verified by an employer. (PR: Permission)

OCCUPATIONAL DEVELOPMENT (OD)

OD 100 – Introduction to Occupational Development. 1 to 3 Credits. An introduction to the occupational field and responsibilities of the professional in the field. Provide a foundation for employment and further coursework in the chosen field.

OD 104 – Specialized Occupational Training. 1 to 3 Credits. Instruction for occupational leaders of curriculum needed in the occupation for self improvement or for teaching to fellow employees in the field. This curriculum will vary

with the needs of the students. Some classes covered are OSHA 500, OSHA 501, Air Monitoring, Metal and Non-metal Mining, and others.

OD 105 – OSHA 500. 2 to 3 Credits (CR/NC). A course for persons in the construction industry who are interested in developing safety and health programs in the private sector. Using OSHA standards as a guide, special emphasis is placed on becoming knowledgeable about the most hazardous areas of industry. (PR: Permission)

OD 106 – OSHA 501. 2 to 3 Credits (CR/NC). Designed for private sector personnel from all types of industries, this course presents detailed information on how the provisions of the Occupational Safety and Health Act may be implemented in the workplace. (PR: Permission)

OD 107 – Lead Abatement. 2 Credits (CR/NC). This course is to train the trainer to teach what regulations are required to have a safe and healthy job site while working with the hazards of lead. The instructor will be preparing students for state certification examinations as well as fulfill training requirements as dictated by EPA Title X, and state legislative requirements. (PR: Permission)

OD 108 - First Aid/CPR/AED Instructor. 2 Credits (CR/NC). The purpose is to train instructor candidates to teach American Red Cross First Aid/CPR/AED Program courses and modules. (PR: Permission)

OD 109 – Scaffolding. 2 Credits (CR/NC). Introduces students to the four hazard classifications related to scaffolding. Teaches students to associate the classifications with actual injury statistics from OSHA and the BLS. Includes the identification of various scaffold components. (PR: Permission)

OD 110 – Confined Space. 2 Credits (CR/NC). Teaches major legal requirements of OSHA's permit-required confined space standard to ensure that members of the building and construction trades understand what it is to work safely in confined spaces. (PR: Permission)

OD 111 – Science Air Monitoring. 2 Credits (CR/NC). Focus on air monitoring of common occupational health hazards in the painting industry. The course includes maintenance and calibration of air monitoring equipment, record keeping, quality control instruments, calibration and other engineering controls. (PR: Permission)

OD 112 – Blueprints, Codes and Specifications. 2 to 8 Credits (CR/NC). Upon successful completion of this course, the student will be able to locate and identify engineered specifications within a set of plans; locate and identify engineered scaled and unscaled drawings; order and manage construction materials from a set of plans; increase creditability and communication between the job foreman and job-site engineers; identify National Building Codes pertaining to their trade. Available to students through partnerships with Department of Labor approved apprenticeship programs.

OD 120 – On-the-Job Training. 1 to 12 Credits. This course consists of paid or unpaid OJT, internship, or practicum performed in a business, industry, trade, or technical career setting within the student's occupational area. The on-the-job training component is converted to credit hours at a ratio of 200:1 with a maximum of 2,400 contact hours allowable. A statement of the total number of contact hours experienced through on-the-job training will be verified by an employer or union official and will be placed on the college record. This credit will be recorded immediately prior to graduation from college. (PR: Must major in Occupational Development degree programs)

PAINTING AND ALLIED TRADES (PAT)

PAT 120 – Introduction to Painting. 3 Credits. This class will orient individuals to the painting profession. The topics to be covered include painting materials, tools, equipment and terminology. An overview of the characteristics of light and color will also be provided.

PAT 121 – Techniques of Painting. 4 Credits. This course covers surface preparation, selection and characteristics of materials, standards and specifications related to abrasive blasting, H20 blasting, and painting. Special emphasis will be placed on characteristics of normal and abnormal surface deterioration and thermal spraying for metal substrates.

PAT 122 – Introduction to Wall covering. 3 Credits. This course covers the basic principles of wall covering. Students will learn how to prepare a surface wall covering and how to apply wall covering. Tools and materials of the wall covering trade will also be discussed.

PAT 130 – Introduction to Industrial Painting. 4 Credits. This class will orient individuals to the industrial painting profession. Topics to be covered include coating materials, tools, equipment and terminology. The differences between industrial painting and commercial painting will be identified and described.

PAT 131 – Surface Preparation. 4 Credits. This course covers the tools, materials and methods used for cleaning and preparing surfaces using solvents, hand tools and power tools. Content in this course is based on the methods and procedures specified by SSPC and NACE.

PAT 132 – Materials for Industrial Painting. 3 Credits. This course covers the basic components and film forming processes of paints and coatings. The different systems and functions of paints and coatings are described. The criteria for selecting a coating system based on surface environment and preparation requirements are outlined.

PAT 133 – Techniques of Spraying. 3 Credits. This course covers the fundamentals of spray painting with a detailed discussion of the most common spray painting systems: electrostatic, turbine, airless, conventional, air, HVLP, and turbine. Student will also learn how to safely use spray equipment and the potential hazards involved.

PAT 134 – Safety Measures for Industrial Painting. 3 Credits. This course covers the dangers related to working with lead and the procedures for safe exposure and abatement. In particular, this course will cover what lead is, where it can be found, its health effects, its hazards, worker and community rights related to lead, abatement methods, cleanup, disposal, and laws, regulations and standards.

PAT 140 – Introduction to Glazing. 3 Credits. This course is designed to provide an introduction to glazing and the tools of the trade. Students will learn fundamentals of the glazing industry including the different purposes windows serve in a building's design, trade terminology, symbols, trade tools and materials. Students will learn the management of glass cutting projects.

PAT 141 – Sealant Theory & Application. 4 Credits. This course is designed to provide an introduction to sealants used in the glazing trade. Students will learn sealant terminology, selection, forms, and their proper and most effective use for a given project. The basic principles regarding joint design and measurements as well as the proper substrate preparation techniques will be discussed. Additionally, students will learn the basics of structural glazing including its methods, applications and safety factors.

PAT 142 – Basic Glass Fabrication. 3 Credits. This course is designed to build basic skills and knowledge necessary for fabricating glass including mirrors, spandrel glass, architectural panels and Ribbon Window Systems. Students will also learn the purpose and techniques for anodizing aluminum surfaces that often surround glass installations.

PAT 143 – Math & Blueprint Reading for Glaziers. 3 Credits. This course will build upon the students' basic mathematics, trigonometry, measurement skills and knowledge by accurately using math when reading blueprints. Reading blueprints, measuring, layout, fabrication and other functions specific to the glazing trade require accurate calculations and measurements for the success of any glazing job. Reading blueprints and tape rules or taking other measurements accurately will lead to properly cut glass or aluminum and will contribute to a timely and successful job.

PAT 150 – Introduction to Sign and Display. 4 Credits. The display installers' profession is part of one of the fastest growing industries in the country. Convention Centers are expanding and improving facilities to attract more clientele while support service industries such as hotels, restaurants and entertainment industries provide numerous job opportunities around trade show locations. Display workers assemble and build large and small exhibits in the shops as well as install and dismantle them at the show locations. This course is intended to provide the display installer with basic skills in organization, tools of the trade and safe and efficient work practices. The apprentice installer will learn the various jobs available or expected of him, identify and describe commonly used tools, use proper terminology and describe the steps involved in planning, installing and dismantling a trade show.

PAT 151 – Tools of the Sign and Display Trade. 4 Credits. Tradesmen in the sign industry need an infinite number of tools to bring the signs we see to life. Participants in this course will work with many stretch, tape and seam carpet and the show the proper techniques for dismantling the setup pieces. Also discussed will be the responsibilities of the lead person for storing deco equipment and keeping track of the equipment being used during the show.

PAT 152 – Methods of Layout for Sign and Display. 4 Credits. Signs are meant to convey messages or to get someone from point A to point B. The composition of the sign determines whether a sign is pleasing to the eye or completely ignored. There are six interdependent components of a good sign. Each component needs the other five for a layout to succeed. Upon completion of this course, the participants should be able to create a sign that incorporates the six components of a good layout and conveys the intended message while meeting the clients' needs.

PAT 153 – Techniques of Sign and Display. 4 Credits. This course will introduce the participant to the process of applying vinyl designs to a variety of substrates. Vinyl designs can be used for advertising and displaying information and can be applied on vehicles, windows, doors, wood or metal. Participants will learn the types of vinyl that can be used in given situations, the use of application tools, and the ability to identify and complete any preparations to various substrates prior to applying the vinyl. The sign and display apprentice will be taught how to inspect the applied vinyl for wrinkles, bubbles, adhesion, etc. and the resolution for any imperfections found. Cleanup procedures, personal protective equipment, safety precautions and the procedures for proper disposal of scrap metals will also be discussed to give the participants a foundation in the basics of applications.

PAT 160 – Methods of Tradeshow Floor Layout. 4 Credits. The first job at a show site is to transfer the floor plan to the floor of the faculty. This must be accomplished before the equipment can be unloaded. In this course, the participant will learn to read and interpret the floor plan and Its symbols that show how the floor space is to be divided Into a basic framework desired by the association organizing the show. They will move into using a scale ruler to transfer dimensions on the floor plan to the show floor and marking the floor with appropriate symbols. The installer will also be given the opportunity to demonstrate methods used to compensate for deviations between the floor plan and the actual floor. Other factors concerning the floor's condition and limitations will also be discussed to give the participant a solid foundation of skills and knowledge to properly layout a trade show floor.

PAT 161 – Methods of Booth Preparation and Installation. 4 Credits. The focus of this course will be pre-planning and preparation of exhibit installation and dismantle. Participants in this course will gain hands-on experience using the basic procedures to efficiently and safely erect and dismantle the three general categories of display booths. The installer will be expected to demonstrate the standards of conduct for the display installer while they will also demonstrate the use and identification of safety equipment and cleaners for specific jobs. Booth installation and dismantling covers a variety of tasks that require specific technical expertise. The participant in this course will describe the general systems assembled by display installers with specific descriptions and tips for working with them. The learning experience will include three general types of displays used in trade shows: portable booths, component systems, and custom or construction systems.

PAT 162 – Techniques of Tradeshow Carpet Installation. 4 Credits. Using the proper tools and equipment for installing carpet at a trade show can make the difference between acceptable and unacceptable results. Having the proper tools and using them correctly will make the job easier, require less installation time and standardize every installation. The participant will be exposed to a myriad of skills and knowledge that will help him perform the job proficiently. Topics to be discussed include tools and equipment, carpet, booth carpet and aisle carpet installation procedures as well as the identification and practice of safety with respect to using tools, cutting, transporting and ergonomics when installing carpets.

PAT 170 – Introduction to Floor Covering. 3 Credits. This course will provide the participant with a solid introduction to the floor covering trade. Participants will explore the rewards and benefits of working in the floor covering trade. Additionally, participants will be introduced to the many different types of materials from which they and their customers can choose when laying a new floor or replacing an old floor. Participants will learn to describe and determine which floor covering materials are appropriate for the job at hand and how the job can be accomplished safely and efficiently.

PAT 171 – Sketching for Floor Coverers. 3 Credits. In this course, participants will learn to describe and demonstrate various drawings and sketches using both tools and freehand techniques. The participants will apply all newly learned skills to draw and sketch sections of storefront installation as well as a complex storefront.

PAT 172 – Procedures for Floor Covering Prep. 3 Credits. This course describes the procedure for preparing concrete and other masonry surfaces to receive resilient floor coverings. Additionally, participants in this course will learn the requirements for preparing a wood surface for covering. Similar to the preparation for concrete work, the wood surface must be dry, clean, and level. The methods by which the wood surfaces are prepared are more complex because of the many wood surfaces with which the installer must work.

PAT 173 – Introduction to Carpet Installation. 3 Credits. In this course, participants will learn the history of the carpet industry in North America. Participants will learn that identifying the various types of carpet construction is essential to the installer and the installation process since each type determines which technique will be used for installation. Additionally, this course will provide a foundation of the tools and materials used when installing carpet.

PAT 174 – Techniques of Floor Covering I. 3 Credits. This course will discuss the installation procedures and considerations for woven carpets and vinyl back carpet or carpet tiles. The participants will also learn techniques for installing stair carpet from which the basic principles can be applied to other installations of carpet on varying styles and dimensions of stairs.

PAT 175 – Techniques of Floor Covering II. 3 Credits. This course will provide the floor coverer with a working knowledge of the appropriate procedures for preparing and installing laminate flooring, sheet goods, and resilient floor tile. Participants will be exposed to the types of surfaces on which the above mentioned types of flooring can be applied. Additionally, this course will discuss the importance of planning the layout, preparing the room and choosing specialty tools and other equipment needed to properly and efficiently install laminate flooring, sheet goods, and resilient floor tile.

PAT 180 – Confined Space. 3 Credits. In this course, students will study OSHA's permit-required confined spaces standard (29 cfr 1910.146). The term "confined space" will be defined and the potential hazards involved in permit-required confined spaces and safe entry procedures will be discussed.

PAT 181 – Hazardous Materials. 4 Credits. This course covers the dangers related to working with hazardous materials and the procedures for safe exposure and abatement. In particular, this course will cover what lead and asbestos are, where they can be found, their health effects, their hazards, worker and community rights related to these hazardous materials, abatement methods, cleanup, disposal, laws, regulations, and standards.

PAT 183 – Elevated platforms. 4 Credits. The main objective of this course is to prevent workplace injuries and fatalities related to falls. This course covers the potential hazards related to working on raised or unstable platforms. The types of tools and equipment for elevating oneself and one's work materials are identified. Selection, inspection, setup, safe techniques and proper maintenance of equipment are discussed.

PAT 184 – Respiratory Protection. 3 Credits. This course covers OSHA's requirements for respiratory protection in 29 cfr 1910.134. The primary objective of this course is to reduce workers' exposure to airborne contaminants. This course will cover how the human respiratory system works, respiratory hazards, the purpose of respiratory protection, different types of respirators and their purposes, appropriate use, inspection, cleaning and storage of respirators.

PAT 187 – Techniques for First Aid Instruction. 3 Credits. This course is designed to provide basic safety awareness and practices for workers within all trade areas. Students will gain useful exposure and knowledge to basic safety practices including but not limited to First Aid/CPR, First Aid/AED (Automatic External Defibrillator), respiratory protection, fall protection and safety protocol when using power tools.

PAT 220 – Techniques and Applications of Spray Painting. 4 Credits. This course covers the fundamentals of spray painting with a detailed discussion of the most common spray painting systems: electrostatic, turbine, airless, conventional, air, and HVLP. Students will also learn the potential hazards involved with spray equipment and how to use spray equipment safely:

PAT 221 – Techniques of Wall covering. 4 Credits. This course covers the advanced techniques of wall covering. Specialized decorative techniques such as glazing, antiquing, wood graining, marbleizing, texturing, gilding, stenciling, and stipple finishing will be discussed.

PAT 230 – Testing and Quality Control. 3 Credits. This course covers quality control and quality assurance. Students will learn how to recognize failures of paint coatings, causes of failures and their remedies. Students will also learn to conduct a quality control inspection and the standards that apply to the various tasks performed during the inspection process.

PAT 231 – Advanced Safety Measures For Industrial Painting. 4 Credits. This course covers the potential hazards of working with toxic and flammable materials and the related use of personal protective equipment. Additionally, this course covers the potential hazards related to working on raised or unstable platforms. The types of tools and equipment for elevating oneself and one's work materials are identified. Selection, inspection, setup, safe techniques and proper maintenance of equipment are discussed.

PAT 240 – Advanced Fabrication. 3 Credits. This course is designed to provide the glazier with the skills and knowledge to fabricate glass and mirror, install door hardware, create material lists and optimize schedules. This course will also discuss door hardware including locks and bolts. Fabrication techniques will include edging, removing scratches, drilling and cut outs.

PAT 241 – Installation Layout and Building Control. 4 Credits. This course is designed to introduce the glazier to curtain wall installation methods, practices and testing standards. Students will also learn the basics of aluminum entrances, storefront installations, Ribbon window installations and the use of transits, levers and lasers. All aspects of installation and layout will be discussed as well as building control basics.

PAT 242 – Welding Techniques. 3 Credits. This course is designed to teach the principles of welding, flame cutting and brazing with emphasis on mastering basic welding techniques.

PAT 243 – Specialties in the Glazing Trade. 3 Credits. This course is designed to enhance the basic skills of a glazier in performing specialty work. Specialized glazing work may include aquarium and shower door installation, auto glass work, glass shelving, Herculites, stained glass and clear story. Glaziers will learn techniques and procedures as well as safety regulations and safe handling of all materials and installations.

PAT 250 – Techniques of Vehicle Signage. 4 Credits. This course will introduce the participant to the appropriate procedures to vehicle signage. The participant will be exposed to the six components of a good layout that conveys the intended message while meeting the clients' needs.

PAT 260 – Steward's Training. 4 Credits. A steward is a union member elected or appointed as the union representative in dealings with management on the job site. There must always be a steward on every job. This short course on stewarding will better prepare the participant for the task of being a trade show steward. Some of the topics covered are generic in nature; others are trade show specific. Participants will summarize and discuss the affect or influence on union activities by The Labor Management Relations Act (NLRA). You will learn the roles and responsibilities of a steward to effectively perform the job and to abide by the governing laws, whether as a trade show steward or on a regular job site.

PAT 261 – Techniques of Freight Handling for Tradeshows. 4 Credits. This course is designed to introduce the student to "freight handling." Freight handling encompasses the removal, storage and return of the empty crates and other packaging materials. The student will be exposed to a variety of products specific to freight handling from a small submarine to the standard 10" wooden crate.

PAT 270 – Advanced Techniques of Floor Covering I. 3 Credits. Participants in this course will look at the use of coving to finish a sheet-goods installation. Coving not only enhances the floor's installation but also eliminates sharp corners and crevices and makes cleaning easier. Finishing or trimming an instal-

lation will provide a smooth clean finish to the floor and a smooth transition at the wall. Participants will learn the importance of using underlays and perfect bonding adhesives for a successful installation.

PAT 271 – Advanced Techniques of Floor Covering II. 3 Credits. In this course, participants will learn of the various materials by which safety flooring is made. They will also develop an understanding of the purpose of safety flooring and the process by which it is manufactured to withstand various underfoot traffic. Finally, some of the special jobs a floor covering installer may encounter are discussed, including: covering with tile, insets, electrostatic discharge control (EDC) and heat seam welding.

PARAMEDIC SCIENCE (PAR)

PAR 125 – Rescue Operations. 3 Credits. A course designed to develop awareness of rescue operations, hazardous materials, incidents, ambulance operations, crime scenes and others.

PAR 130 – Introduction to EMS Systems. 3 Credits. This course is designed to educate and train the student in the Introduction to EMS Systems section of the Emergency Medical Technician-Paramedic curriculum according to the standards set forth by the national and state regulatory agencies. (Offered Fall Semester only)

PAR 210 – Patient Assessment & Airway Management. 2 Credits. A course designed to develop skills and knowledge essential to assessing a patient in the pre-hospital setting. Students will also learn advanced airway procedures and respiratory management. (Offered Fall Semester only)

PAR 211 – Principles of Trauma Management. 2 Credits. A course designed to develop skills and knowledge essential to assessing the trauma patient in the pre-hospital setting. The course focuses on both physical exam and initial treatment and management of the trauma patient, including spinal immobilization, splinting, hemorrhage control and advanced airway management. (Offered Fall Semester only)

PAR 212 – Pre-Hospital Pharmacology. 2 Credits. Focused on an integration of pathophysiological principles of pharmacology and assessment findings to formulate a pre-hospital impression and implement a pharmacological management plan for the benefit and improvement of the victim(s). (Offered Fall Semester only)

PAR 220 – Cardiovascular Emergencies. 4 Credits. A course focused on pre-hospital intervention and monitoring of patients with cardiovascular emergencies. The student will learn and practice ECG monitoring, interpretation, and various drug therapies. (Offered Spring Semester only)

PAR 221 – OB/GYN/Neonatal/Pediatric Emergencies. 2 Credits. A course focused on pre-hospital monitoring skills and interventions for obstetric, gynecological, pediatric and neonatal patients. The student will learn and practice skills needed to care for a pregnant patient, delivery of a baby, care for the newborn and common pediatric emergencies. (Offered Spring Semester only)

PAR 230 – Pre-Hospital Care Considerations. 2 Credits. A course focused on pre-hospital intervention and monitoring skills for patients with special considerations. Includes geriatric patients, victims of abuse and assault, patients with special challenges and acute intervention for chronic care patients. This course is also designed for the paramedic student to develop skills in Assessment-Based Management. (Offered Spring Semester only)

PAR 231 – Medical Emergencies. 4 Credits. Course focused on pre-hospital intervention and monitoring skills for patients with general medical emergencies. This would include patients with pulmonary, neurological, renal, toxicological, anaphylactic or environmental emergencies. (Offered Spring Semester only)

PAR 241 – Advanced Paramedic Skills Lab I. 3 Credits. This course is designed to provide lab skills practice related to the Paramedic courses PAR130, PAR 210, PAR 211 and PAR 212. This class is intended to be an interactive and hands-on learning experience. (Offered Fall Semester only)

PAR 242 – Advanced Paramedic Skills Lab II. 3 Credits. This course is designed to provide lab skills practice related to the Paramedic courses PAR 211 and PAR 212 of the Emergency Medical Technician - Paramedic curriculum. This class is intended to be an interactive and hands-on learning experience. (Offered Spring Semester only)

PAR 243 – Advanced Paramedic Skills Lab III. 3 Credits. This course is designed to provide lab skills practice related to the Paramedic courses PAR 125 of the Emergency Medical Technician - Paramedic curriculum. This class is intended to be an interactive and hands-on learning experience. Also, this class is structured as a review of subjects in the previous two semesters of the Paramedic Program and National Registry Test Preparation.

PAR 251 – Paramedic Clinical I. 3 Credits. A course designed for the beginning paramedic student to gain competency in pre-hospital intervention and monitoring skills under the supervision of clinical preceptors. (Offered Fall Semester only)

PAR 252 – Paramedic Clinical II. 3 Credits. A course designed for the advancing paramedic student to apply skills learned in the classroom to the clinical setting. All skills are performed under the supervision of a clinical preceptor. (Offered Spring Semester only)

PAR 253 – Paramedic Clinical III. 3 Credits. A course designed for the advancing paramedic student to apply skills learned in the classroom to the clinical setting. All skills are performed under the supervision of a clinical preceptor. (PR: Admission to program)

PAR 260 – Critical Care Transport. 5 Credits. A course designed for the EMT-Paramedic and Registered Nurse to obtain the knowledge and skills necessary to manage the critical patient during transfers between hospitals, specialty referral centers and extended care facilities. (PR: EMT or LRN and CR: PAR 261)

PAR 261 – Critical Care Transport Clinical. 1 Credit. A course designed for the EMT-Paramedic and Registered Nurse to gain clinical transport experience in specialized units such as Intensive Care, Pediatric Intensive Care, Neonatal Intensive Care, Critical Care Ambulances and Labor & Delivery. (PR: EMT or LRN and CR: PAR 260)

PHARMACY TECHNICIAN (PHT)

PHT 201 – Introduction to Pharmacy Technician. 3 Credits. This course introduces pharmacy practice and the technician's role in a variety of pharmacy settings. Topics include medical terminology and abbreviations, drug delivery systems, law and ethics, prescription and medication orders, and the healthcare system. Upon completion, students should be able to explain the role of pharmacy technicians, read and interpret drug orders, describe quality assurance and utilize pharmacy references. (PR: Admission to PHT program)

PHT 204 – Pharmacy Practice I. 3 Credits. This course provides instruction in the technical procedures for preparing and dispensing drugs in the hospital and retail settings. Topics include drug packaging and labeling, outpatient dispensing, hospital dispensing procedures, controlled substance procedures, inventory

control, and nonsterile compounding. Upon completion, students should be able to perform basic dispensing techniques in a variety of pharmacy setting.
(PR: Admission to PTA program)

PHT 206 – Pharmacy Calculations. 3 Credits. This course provides the specific information pharmacy technicians require when working with metric, avoirdupois, and apothecary systems of measurement and how these relate to the specific applications in pharmacy. (PR: Admission to PTA program)

PHT 208 – Sterile Products. 3 Credits. This course provides an introduction to intravenous admixtures preparation and other sterile products, including total perenteral nutrition and chemotherapy. Topics include aseptic techniques, facilities, equipment and supplies utilized in admixture preparation, incompatibility and stability, laminar flow hoods, immunizations and irrigation solutions and quality assurance. (PR: Admission to PTA program)

PHT 250 – Pharmacy Practice II. 3 Credits. This course provides continued instruction in the technical procedures for preparing and dispensing drugs in the hospital setting. Topics include more detailed coverage of unit-dose dispensing, ward stock systems, materials management, automated dispensing and quality assurance. (PR: Admission to PTA program)

PHT 260 – Pharmacy Technician Practice Management. 3 Credits. This course covers the major issues, trends and concepts in contemporary pharmacy practice. Topics include professional ethics, continuing education, job placement and the latest developments in pharmacy technician practice.
(PR: Admission to PTA program)

PHT 280 – 289 – Pharmacy Technician Special Topics. 2 Credits. Study of content not normally covered in other courses. (PR: Admission to PTA program)

PHT 290 – Pharmacy Technician Experiential Training. 6 Credits. This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is on communicating effectively with personnel, developing proper employee attitude, and dispensing medications.
(PR: Admission to PTA program)

PHYSICAL THERAPY ASSISTANT (PTA)

PTA 100 – Introduction to Physical Therapy. 3 Credits. An orientation to physical therapy profession including historical background, philosophy, and function of the American Physical Therapy Association, professional ethics, documentation, legal responsibilities and interpersonal relationships among health team are covered. Introductory techniques in positioning, range of motion and vital signs are also covered. (PR: Admission to PTA program)

PTA 110 – Physical Therapy Modalities. 2 Credits. Basic treatment modalities and procedures in PT are introduced. These include therapeutic hot/cold techniques, massage and electrical stimulation. (PR: Admission to PTA program; CR: PTA 110 L) (Offered Fall Semester only)

PTA 110L – Physical Therapy Modalities Lab. 1 Credit. Basic treatment modalities and procedures in PT are introduced in a laboratory setting. These include therapeutic hot/cold massage and electrical simulation. (PR: Admission to PTA program and CR: PTA 110)

PTA 120 – Patient Care Skills. 2 Credits. Rationale and skills for patient therapeutic techniques, including transportation of patients, proper body mechanics, aseptic techniques, transfers and lifts, lower extremity orthotics, gait training with assistive devices, hydrotherapy and wound care. (PR: Admission to PTA Program and CR: PTA 120L) (Offered Fall Semester only)

PTA 120L – Patient Care Skills Lab. 1 Credit. Lab skills practice including transportation of patients, proper mechanics, asceptic techniques, transfers and lifts, lower extremity orthotics, gait training and assistive devises, hydrotherapy and wound care. (PR: Admission to PTA Program and CR: PTA 120) (Offered Fall Semester only)

PTA 130 – Functional Anatomy and Procedures. 3 Credits. Structure and function of the musculoskeletal system with an introduction of the evaluative techniques of palpation, goniometry, manual muscle testing and gait patterns. (PR: Admission to PTA program and CR: PTA 130L) (Offered Fall Semester only)

PTA 130L – Functional Anatomy and Procedures Lab. 1 Credit. Lab skills practice including evaluative techniques of palpation, goniometry, manual muscle testing and gait training. (PR: Admission to PTA program and CR: PTA 130)

PTA 140 – Neuroanatomy and Physiology. 3 Credits. Structure and function of the human nervous system and basic concepts of human physiology. (PR: Admission to PTA program) (Offered Fall Semester only)

PTA 150 – Clinical Practice I. 2 Credit (CR/NC). Continuation of supervised clinical experience (120 hours, based upon clinic) utilizing new skills for the practical application of physical therapy services under the supervision of a licensed physical therapist or physical therapist assistant. (PR: Completion of PTA 100, 110, 110L, 120, 120L, 130, 130L with "C" or above) (Offered Fall Semester only)

PTA 160 – Clinical Practice II. 1 Credit (CR/NC). Continuation of clinical experience utilizing new skills under the direction of a licensed PT or PTA. (PR: Completion of PTA 150) (Offered Fall Semester only)

PTA 200 – Pathological Conditions. 3 Credits. Basic pathophysiology and reaction to disease and injury of commonly treated physical therapy conditions, including burns, neoplasm, hereditary and congenital conditions, blood, respiratory infections, skin, musculoskeletal and aging diseases. (PR: Completion of PTA 100, with grade of "C" or better) (Offered Spring Semester only)

PTA 220 – Orthopedic Rehabilitation. 3 Credits. Emphasizes therapeutic procedures utilized by physical therapist assistants for patients with orthopedic and soft tissue injury, degenerative disorders, nerve injuries and orthotic needs for hand and foot disorders. (PR: Completion of PTA 100, 110, 110L, 130, and 130L with grade of "C" or better and CR: PTA 220L) (Offered Spring Semester only)

PTA 220L – Orthopedic Rehabilitation Lab. 3 Credits. Application of therapeutic procedures for patients in orthopedic and cardiopulmonary rehabilitation in a laboratory setting. (PR: Completion of PTA 100, 110, 110L, 130, and 130L with grade of "C" or better and CR: PTA 220)(Offered Spring Semester only)

PTA 230 – Adult Rehabilitation. 3 Credits. Expands upon neurological principles to emphasize pathology and rehabilitation techniques for adult care. (PR: Completion of PTA , 100, 110, 110L, 130, and 130L courses with grade of "C" or better and CR: PTA 230L) (Offered Spring Semester only)

PTA 230L – Adult Rehabilitation Lab. 1 Credit. Lab skills practice to expand upon neurological principles to emphasize pathology and rehabilitation techniques for adult care. (PR: Competition of PTA 100, 120, 120L, and 140 courses with grade of "C" or better and CR: PTA 230) (Offered Spring Semester only)

PTA 240 – Peds and Spinal Cord Rehabilitation. 2 Credits. Introduction principles, neurological, pathology and rehabilitation techniques for pediatric and spinal cord injury rehabilitation. (PR: Completion of 100 level PTA courses with grade of "C" or better and CR: PTA 250L) (Offered Spring Semester only)

PTA 240L – Peds and Spinal Cord Rehabilitation Lab. 1 Credit. Lab skills practice to expand principles, neurological, pathology and rehabilitation techniques for pediatric and spinal cord injury rehabilitation. (PR: Competition of PTA 100, 120, 120L, and 140 courses with grade of "C" or better and CR: PTA 240) (Offered Spring Semester only)

PTA 250 – PTA Seminar. 1 Credit. Familiarizes students with alternative employment opportunities. Students learn methods of preparing resumes and interviewing techniques. (PR: Completion of all 100 level PTA courses with a grade of "C" or better) (Offered Spring Semester only)

PTA 260 – Clinical Practice III. 4 Credits. Continuation of clinical experience under the direction of a licensed PT or PTA. (PR: Completion of all previous 200 level coursework with a grade of "C" or better) (Offered Spring Semester only)

PTA 270 – Clinical Practice IV. 4 Credits. Final clinical experience under the direction of a licensed PT or PTA. (PR: Completion of PTA 260)

PTA 280 – 283 – Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator PST)

POLICE SCIENCE TECHNOLOGY

PST 101 – Introduction to Public Safety. 3 Credits. This course will teach students the philosophy, history, development of public safety institutions in a democratic society. The course introduces various public safety agencies and their organization and jurisdiction, reviews court processes, orients the student to a career in public safety, and identifies and explores current trends in the field.

PST 102 – Introductions to Corrections. 3 Credits. This course will teach students the knowledge and skills necessary to enter the field of corrections. Students will learn about professional and ethical behavior, the structure of the American corrections system, law and corrections procedure, and possible career opportunities.

PST 111 – Law Enforcement Orientation. 3 Credits. Philosophy, history, and development of law enforcement in a democratic society. Introduces various law enforcement agencies and their organization and jurisdiction, reviews court processes, orients the student to a law enforcement career, and identifies and explores current trends in the field.

PST 113 – Police Defense Tactics. 2 Credits. Demonstration of methods of physical protection from persons armed with dangerous weapons and restraint of prisoners and mentally ill persons. Drills in a limited number of holds and come alongs and training in the use of baton and other special, disarmament, and defensive techniques. A practical application of the methods of self-protection.

PST 120 – Patrol Operations and Procedures. 3 Credits. Covers the duties, extent of authority, and responsibilities of a uniformed law enforcement officer. Patrol philosophy and practices are outlined, and field techniques and their practical application are presented.

PST 122 – Police Arsenal and Weapons. 3 Credits. Handling, care and use of firearms in police work. Lectures supplemented by an intensive range program in deliberate, point, and defense shooting.

PST 231 – Fundamentals of Criminal Law. 2 to 3 Credits. Study of the elements of law and proof in crimes of frequent concern in law enforcement. Rules of criminal liability; elements of specific, commonly violated laws; and development and application of local, state, and federal laws.

PST 233 – Fundamentals of Criminal Investigation. 3 Credits. Analysis of theory and techniques of an investigation, conduct at crime scenes, collection and preservation of physical evidence and testing employed by the police science laboratory. Emphasizes fingerprints, ballistics, documents, serology, photography, crime scenes and duties of a criminal investigator.

PST 235 – Police Organization and Administration. 3 Credits. Principles of organization and management of law enforcement agencies. Concepts of organizational behavior and an understanding of the departmental planning process. The role of and components involved in responsible planning and executing procedures related to personnel, equipment budget, records, communications, and management.

PST 237 – Police Role in Crime and Delinquency. 3 Credits. Study of the development and causes of criminal behavior, social deviancy and crime. Criminological theories and the extent, variation and patterns of crime. Crime prevention techniques and specific pathological problems related to enforcement. Individual personality differences and their relationships to crime as well as recognizing and handling emotionally and mentally disturbed persons.

PST 239 – Criminal Evidence and Procedure. 3 Credits. Study of the rules of evidence at the operational level in law enforcement and criminal procedure in such areas as arrest, force, search and seizure, collection of evidence and discretion. Rules and types of evidence, constitutional law and criminal procedure most often affecting police personnel.

PST 242 – Police-Community Relations. 3 Credits. General orientation to the concepts of police and community relations and the need to establish good working relations between the police and the public. Offers an understanding of the complex factors involved in human relations: the nature of prejudice and discrimination, its effects, the interactions of changing society, the requirements of individual rights, the maintenance of peace and order and the changing police role.

PST 244 – Introduction to Criminalistics. 2-4 Credits. Scientific aspects of criminal investigation. The role of the crime laboratory in the law enforcement organization, the value of physical evidence, and the need for understanding scientific crime detection. Emphasis on recording the crime scene; collection, identification, preservation and transportation of evidence and techniques of examining physical evidence.

PST 246 – Police Records and Reports. 3 Credits. Comprehensive familiarization with types and functions of police records, the role of research in the planning process and establishment and administration of a record bureau in enforcement agencies. Includes form records, analysis and report writing; role and use of uniform crime reporting system forms and essential data required. Review of electronic data processing and the computer as related to police planning and operation.

PST 248 – Traffic Administration and Enforcement. 2 to 3 Credits. History, development, and economics of the modern transportation system. Coping with traffic problems to include use of modern technology in accident investigation and reporting. Police responsibilities as they relate to traffic engineering, education, enforcement, and enactment.

PST 271 – Police Executive Command School. 6 Credits. Leadership skills and executive police agency processes discussed in great detail. Emphasis will be on the development of executive communications, dealing with the media, critical incident management, crime monitoring trends, case oversight, crisis management, budgeting in the public sector and human resource issues. The leadership instruction will focus heavily on Situational Leadership Theory, the 7

Habits of Highly Effective Police Officers.

PST 275 – Law Enforcement On-the-Job Training. 1-12 Credits. This course consists of supervised paid OJT, internship or practicum performed in a law enforcement setting. Students will apply law enforcement theory in real life situations by performing patrols, investigating accidents and crime scenes, writing reports and providing written and verbal evidence in courts of law. On-the-job credit hours are earned at a ration of 200:1 with the maximum of 12 credit hours allowed. Successful completion of on-the-job training and achievement of program learning outcomes will be verified by an employer.

PST 280 – 283 – Special Topics. 1 to 4 Credits. Content not normally covered in other courses. (PR: Enrollment with permission of division director or course instructor.)

PST 290 – Law Enforcement Internship. 9 Credits. Placement with area law enforcement agencies is designed to blend classroom education with practical experience. Flexibility of designing individual programs for students is accomplished through the development of cooperative training agreements among the agency and the training station supervisor and the college. (PR: Permission)

PST 291 – Police Science Internship I. 5 Credits. This course is designed to blend classroom education with practical experience. Students will apply law enforcement theory in real life situations by performing patrols, investigating accidents and crime scenes, writing reports, and providing written and verbal evidence in courts of law. Interns must complete the on-the-job training under the supervision of a law enforcement officer. (PR: Permission)

PST 292 – Police Science Internship II. 4 Credits. This course is designed to blend classroom education with practical experience. Students will apply law enforcement theory in real life situations by performing patrols, investigating accidents and crime scenes, writing reports, and providing written and verbal evidence in courts of law. Interns must complete the on-the-job training under the supervision of a law enforcement officer. (PR: Permission)

PUBLIC LIBRARY TECHNOLOGY (PLT)

PLT 100 – Careers in Libraries. 3 Credits. This course will examine basic, structures, functions and operation of public, academic and special libraries. Included will be overviews of patron types along with examining the materials, services, and technology available to meet the needs of each. In addition, students will learn about the profession and the types of careers available in libraries.

PLT 210 – Public Library Cataloging and Technical Services. 3 Credits. This course provides an introduction to the current practices in descriptive cataloging and subject analysis; introduction to cataloging practices, subject analysis theories and practices for all formats; introduction to the Sears List of Subject Hearings, Library of Congress Subject Headings and concepts in assigning Dewey Decimal and Library of Congress Classification numbers.

PLT 215 – Advanced Cataloging. 3 Credits. Provides intensive practice in the fundamentals of library cataloging and classification, serials control, and database maintenance. Instruction on reading, interpretation, and use of current standards and documentation of the creation of MARC records. Focuses on management, policy, organizational issues and training related to the administration of technical services in public libraries. (PR: PLT 210)

PLT 220 – Public Library Children's and Young Adult Services. 3 Credits. This course addresses the selection and promotion of library materials that support programs in children's and young adult services. Issues of service, diversity and a balance in acquiring and selecting materials will also be presented.

PLT 230 – Public Library Reference. 3 Credits. Study of basic reference sources for public libraries with emphasis on library materials evaluation, the reference interview, search strategies and impact of new technology on libraries.

PLT 235 – Advanced Reference Skills. 3 Credits. This course will expose students to advanced research techniques and advanced online searching for specialized areas most heavily requested by public library patrons: government documents, business information (entrepreneur/investment), legal materials, career development, continuing education and consumer health. (PR: 230, May be taken concurrently).

PLT 240 – Public Library Organization and Administration. 3 Credits. Course will focus on principles of administration and organization for public libraries, including planning, policy development, financial management, personnel management and state and national library laws.

PLT 250 – Public Library Technology. 3 Credits. Introduction to the function, management and issues of computer technology in libraries. Students learn skills in information storage and retrieval, how to plan/maintain library networks, how to find and troubleshoot telecommunications services and provide web resources accessible to individuals with disabilities.

PLT 255 – Collection Development for Public Libraries. 3 Credits. Explores the process of acquiring, maintaining and weeding library materials. Includes collection development policies, community analysis, materials for special needs and interests and materials in various formats.

PLT 260 – Public Library Adult Services. 3 Credits. Study of adult patron needs; how to anticipate and provide appropriate services to adult populations in the community. Services will include literacy programs and services to minorities, job seekers, business community and handicapped. Students will also learn the basic principles of programming for adults.

PLT 265 – Preservation of Library Materials. 3 Credits. This course introduces students to the preservation and conservation of library and archival collections; the physical nature of materials; causes of deterioration; techniques staff can employ for promoting longevity and restoration of materials in various formats; library disaster planning and recovery; issues regarding the preservation of digital information (electronic records and multimedia documents).

PLT 275 – Information Literacy. 3 Credits. This course is designed to help students to become more proficient in selecting and researching topics, evaluating information and the sources of that information and ultimately using relevant research (in a paper, speech, or assignment) in an ethical manner. This course will challenge the student to think critically and invest in developing research topics that will interest both the writer and the reader.

PLT 280 – Public Library Marketing. 3 Credits. This course will expose students to advanced marketing skills and implementation processes. Students will cover basic marketing strategies and create a workable marketing plan for a public library of their choosing.

PLT 299 – Public Library Technology: Capstone Experience. 3 Credits. This course will provide the capstone experience in which students will perform an internship in the field while developing and refining their general education portfolio. The portfolio will consist of samples of their work garnered from the field experience and each library course within the program. (PR: Instructor permission)

RADIOGRAPHIC SCIENCE (RS)

RS 201 – Fundamentals of Radiographic Science. 1 Credit. Content designed to provide an overview of the foundations in radiography and the practitioner's role in the health care delivery system. Principles, practices and policies of the health care organization(s) will be examined and discussed in addition to the professional responsibilities of the radiographer. (PR: Admission to Radiologic Technology Program and Instructor's Permission)

RS 202 – Patient Care. 1 Credit. Content designed to provide the basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures will be described, as well as infection control procedures utilizing standard precautions. The role of the radiographer in patient education will be identified. (PR: Admission to Radiologic Technology Program and Instructor's Permission)

RS 203 – Ethics & Law. 1 Credit. Content designed to provide a fundamental background in ethics. The historical and philosophical basis of ethics, the elements of ethical behavior and an introduction to legal terminology, concepts and principles will be presented. The student will examine a variety of ethical issues and dilemmas found in clinical practice. Topics include misconduct, malpractice, legal and professional standards and the ASRT scope of practice. The importance of proper documentation and informed consent will be emphasized. (PR: Admission to Radiologic Technology Program and Instructor's Permission)

RS 204 – Radiographic Procedures I and Lab I. 4 Credits. Content designed to provide a knowledge base necessary to perform routine radiographic procedures along with the application to special studies. Consideration will be given to the production of images of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of Radiologic Procedures I. (PR: Admission to Radiologic Technology Program and Instructor's Permission)

RS 205 – Clinical Practice I. 5 Credits. Students will accomplish mandatory competencies detailed in the procedures specific to Clinical Practice I. Clinical practice will be designed to provide students with experience in patient care and assessment, competent performance of radiologic imaging and total quality management ensuring the well-being of the patient preparatory to, during and following the radiologic procedure. (PR: Admission to Radiologic Technology Program and Instructor's Permission)

RS 206 – Radiobiology. 2 Credits. Content designed to provide an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and body as a whole are presented. Factors affecting biological response are presented, including acute and chronic effects of radiation.

RS 207 – Radiation Protection. 2 Credits. Content designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated.

RS 208 – Radiographic Procedures II and Lab II. 4 Credits. Content designed to provide a knowledge base necessary to perform special radiographic procedures along with the application to special studies. Consideration will be given to the production of images of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of Radiologic Procedures II.

RS 209 – Radiographic Science Pharmacology. 2 Credits. Content designed to provide basic concepts of pharmacology. The theory and practice of basic techniques of venipuncture and the administration of diagnostic contrast agents and/or intravenous medications is included. The appropriate delivery of patient care during these procedures is emphasized.

RS 210 – Clinical Practice II. 7 Credits. Students will accomplish mandatory competencies detailed in the procedures specific to Clinical Practice II. Clinical practice will be designed to provide experience in provision of patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure.

RS 211 – Radiation Production and Characteristics. 2 Credits. Content designed to establish a basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter.

RS 212 – Imaging and Processing and Imaging Lab I. 4 Credits. Content designed to establish a knowledge base in factors that govern and influence the production and recording of radiologic images. Film and electronic imaging with related accessories will be emphasized. Class demonstrations/labs are used to demonstrate and reinforce application of theory of imaging and processing. Film and electronic imaging with related accessories will be emphasized.

RS 213 – Radiographic Pathology. 2 Credits. Content designed to introduce theories of disease causation and the pathophysiologic disorders that compromise health systems. Etiology, pathophysiologic responses, clinical manifestations, radiographic appearance and management of alterations in body systems will be presented.

RS 214 – Imaging Lab II. 1 Credit. Content designed to provide a basis for analyzing radiographic images specific to contrast media procedures, spine, skull & facial bones. Included are the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation and the factors that can affect image quality. Actual images will be included for analysis.

RS 215 – Clinical Practice III. 6 Credits. Clinical practice will be designed to provide experience in provision of patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure. Students will accomplish mandatory competencies detailed in the procedures just specific to Clinical Practice III.

RS 216 – Computers In Radiologic Science. 1 Credit. Content designed to introduce knowledge in computing and information processing. Computer applications in the radiologic sciences related to image capture, display, storage and distribution are presented.

RS 217 - Imaging Equipment. 2 Credits. Content designed to establish a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment requirements and design. The content will also provide a basic knowledge of quality control.

RS 218 – Advanced Imaging Modality. 0 Credits. Introduction to advanced imaging modalities including computed tomography, MRI, ultrasound, nuclear medicine and radiation oncology.

RS 219 – Registry Review Seminar. 0 Credits. Seminar provides student with ARRT examination review.

RS 220 – Clinical Practice IV. 4 Credits. Students will accomplish mandatory competencies detailed in the procedures specific to Clinical Practice IV. Clinical practice will be designed to provide experience in provision of patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure.

RS 221 – Human Diversity for Radiological Technology. 3 Credits. Content designed to promote better understanding of patients, the patients' families and professional peers through comparison of diverse human populations based on their value system, cultural and ethnic influences, communication styles, socioeconomic influences, health risks and life stages. Content will include the study of factors that influence relationships with patients and professional peers.

READING (REA)

REA 088 – Reading Improvement Lab. 2 Credits (CR/NC). This course is designed for students whose placement scores indicate a need for additional reading instruction and practice while taking REA 098. Taken as a co-requisite with REA 098. REA 088 is two-credit hour course that counts toward full-time enrollment status financial aid eligibility but does not count toward the number of courses required to complete any degree program. Placement in REA 088 is determined by ACT score (13 or less), SAT score (369 or less), or the ACCUPLACER Reading score (51 or less).

REA 098 – Reading Improvement. 3 Credits (CR/NC). This course is designed for students who do not meet the state standard in reading and are enrolled in a program leading to an associate degree. Emphasis in the course is on comprehension skills, study skills, and vocabulary development. The prerequisite for the course is the reading placement test. The graduation requirement is increased three hours for students who meet the requirements for this course.

REA 280 – 283 – Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor)

SCIENCE (SCI)

SCI 090 – Developmental Physical Science. 3 Credits (CR/NC). A course for potential bachelor's degree students who do not meet science admissions requirements. Designed to give students experience and skills in physical science, emphasizing lab experiences. (PR: High school algebra; MAT 097 or MAT 097E)

SCI 110 – Introduction to Physics. 4 Credits. This course introduce's non-science majors to applications of physics in life, emphasizing conceptual understanding of basic principles in classical and modern physics that include critical thinking and problem solving exercises. The problem solving exercises will not require memorization of formulas but rather the understanding and application of them. (PR: MAT 135, 145 or 145E)

SCI 120 – Basics in Physical Science. 4 Credits. An introduction for non-science majors to applications of physics, chemistry and astronomy in everyday life. This course will enhance the understanding of basic concepts through hands-on activities and/or experiments.

SCI 201 – Integrated Science: Health, Law and Environment. 4 Credits. An issue driven course where students will investigate health issues along with the law and environment impact related to the physics, chemistry, and biology associated with the issues. (PR: MAT 145; MAT 145E; MAT 150 or MAT 150E)

SCI 220 – Basic Chemistry. 3 Credits. An introduction to chemical properties, basic concepts and relationships. (PR: MAT 145; MAT 145E; MAT 150 or MAT 150E)

SCI 280 – 283 – Special Topics. 1-4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of program coordinator or course instructor)

SOCIAL SCIENCE (SS)

SS 103 – United States History to 1877. 3 Credits. This analytical survey course examines social, cultural, economic and political developments of United States history from approximately 1492 to 1877.

SS 104 – United States History Since 1877. 3 Credits. This analytical survey course examines the social, cultural, economic and political development of United States history from 1877 until the present.

SS 114 – World History Until 1500. 3 Credits. This analytical survey course examines social, cultural, economic and political developments of world history until approximately 1500.

SS 115 – World History Since 1500. 3 Credits. This analytical survey course examines social, cultural, economic and political developments of world history since approximately 1500.

SS 150 – Introduction to Geography. 3 Credits. This is an introductory survey course to many of the major human and physical geographic themes, including environment, landscape, climate, culture, economics, spatial interaction, population, urbanization and globalization.

SS 155 – Economic Geography. 3 Credits. This course introduces the student to geographic tools and methods while exploring fundamental concepts of geography from an economic standpoint. Lecture material, exercises, assignments focus on spatial elements of economic activities and their change over time, the goal of which is to provide students with a basic understanding of the economic systems of the world in which they live and work.

SS 200 – General Psychology. 3 Credits. This course is an introduction to psychology. It is designed to provide an overview of the scientific study of human behavior and mental processes. Topics include a brief history of psychology, research methods and statistics, human development, learning and memory, sensation and perception, motivation, intelligence, psychopathology, various therapies and careers in psychology.

SS 201 – Human Relations. 3 Credits. A survey and interdisciplinary approach to the study of organizational behavior. The course is designed to acquaint students with concepts and/or principles of managing human behavior in an organizational setting.

SS 210 – Fundamentals of Sociology*. 3 Credits. A study of the development, organization and functioning of human society. Students will focus on the nature of social life, examine social differences and social inequality, examine social institutions and focus on social dynamics and social change.

SS 215 – Lifespan Psychology. 3 Credits. The study of human development and age-related changes in behavior, thinking, emotion and personality with a focus on observations and explanations that can be applied to as wide a range of human beings and in as many contests as possible.

SS 225 – Abnormal Psychology. 3 Credits. This course explores the major topics of abnormal behavior. This course focuses on description of various psy-

chological disorders, classification, diagnosis, assessment techniques and methods of treatment and prevention. Historical theories as well as current research and findings in the field of abnormal psychology will be discussed.

SS 250 – Global Issues. 3 Credits. This course is an introduction to many of the most important environmental, economic, social, and political concerns of modern life. Students should have some background or experience from such courses as geography, environmental science, political science, economics and other social sciences.

SS 280 – 289 – Special Topics. 1 to 4 Credits. Study of content not normally covered in other courses. (PR: Enrollment with permission of division director or course instructor)

TECHNICAL STUDIES (TS)

TS 100 – Careers in Technical Fields. This course is designed to help students identify technical careers in the following career fields, which include, but are not limited to: graphic design/communication, air conditioning/refrigeration, automotive technology, general building construction and agricultural science. In the course, students will learn basic skills needed for these career fields, listen to lectures from those working in these fields and complete career exploration.

TS 101 – AAS Portfolio Development. (CR/NC). This course is designed to assist adult students with the development of a comprehensive portfolio documenting knowledge acquired through life/work experiences and other formal or informal learning experiences. (PR: Permission)

TS 102 – On-the-Job Training. 1-12 Credits. This course consists of paid or unpaid OJT, internship, or practicum performed in a business, industry, trade or technical career setting within the student's occupational area. The on-the-job training component is converted to credit hour at a ratio of 160:1 with the maximum of 1920 contact hours allowable. A statement of the total number of contact hours experienced through on-the-job training will be verified by an employer or union official and will be placed on the college record. This credit will be recorded immediately prior to graduation from college. (PR: Must major in Technical Studies or Occupational Development degree programs)

TS 280-285 – Special Topics. 1-5 Credits. This course consists of special topics of course work that will develop skills that may be applied to a variety of occupations or that may be specific to an occupation. Typically courses are technical specialty courses specific to an occupational/technical area. Courses include technical courses developed and delivered by the college, apprenticeship courses, or an approved course that can be included in a business or industry training program. (PR: Permission)

TECHNICAL TRAINING FOR ADULTS (TTA)

TTA 101 – Introduction to Teaching Techniques for Adults. 1-3 Credits. Introduction to instruction for instructors and coordinators of occupational training and apprenticeship. Included in this course are an introduction to computers, commission and interaction, planning, organizing and conducting training, and developing and using instructional aids.

TTA 102. – Teaching Techniques for Adults. 1-3 Credits. Instruction for year-two Instructors and Coordinators of occupational training and apprenticeship. Included in the course are intermediate computers, laboratory safety, testing and evaluation, and advanced instructional methods.

TTA 203 – Advanced Teaching Techniques for Adults. 1-3 Credits. Instruction for year-three Instructors and Coordinators of occupational training and apprenticeship. Included in the course are advanced use of computers, implementing the curriculum and effective classroom leadership.

WORKFORCE DEVELOPMENT (WFD)

WFD 100-119 – Specialized Workforce Training in Allied Health. 1-6 Credits. This course provides instruction for employees seeking self-improvement or skills to meet new best practices in the Allied Health career field. This curriculum will vary with the needs of the students, employers, or changing labor market.

WFD 120-129 – Specialized Workforce Training in General Studies. 1-6 Credits. This course provides instruction for employees seeking self-improvement or skills to meet new best practices in the General Education field. This curriculum will vary with the needs of the students, employers or changing labor market. (PR: Permission)

WFD 130-139 – Specialized Workforce Training in Business. 1-6 Credits. This course provides instruction for employees seeking self-improvement or skills to meet new best practices in the Business Management field. This curriculum will vary with the needs of the students, employers or changing labor market. (PR: Permission)

WFD 140-149 – Specialized Workforce Training in Info Tech. 1-6 Credits. This course provides instruction for employees seeking self-improvement or skills to meet new best practices in Information Technology. This curriculum will vary with the needs of the students, employers or changing labor market.
(PR: Permission)

WFD 150-299 – Specialized Workforce Development Training. 1-6 Credits. This course provides instruction for employees seeking self-improvement or skills to meet new best practices in their specific career field. This curriculum will vary with the needs of the students, employers or changing labor market.
(PR: Permission)