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TENNESSEE BOARD OF REGENTS
INSTITUTION

(865) 694-6400
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Pellissippi State is non-discriminatory on the basis of gender in its educational programs and activities including the employment and admission of students to the College as required by Title IX of the Educational Amendments of 1972 and by rules and regulations based thereon and published as 4C FR, Part 86.

The commitment to equal opportunity applies to all aspects of recruitment, employment, and education of individuals at all levels throughout the College.

Any Pellissippi State student or employee who has reason to feel he or she has been affected by discrimination should contact the following:

Karen Queener  
Director of Human Resources and Affirmative Action; Equal Employment Opportunity Officer; ADA, 504, Titles VI & IX Coordinator  
Pellissippi State Technical Community College J.L. Goins Administration Building, Room 204 P.O. Box 22990 10915 Hardin Valley Road Knoxville, Tennessee 37933-0990 (865) 694-6607

Questions about services and facilities for people with disabilities should be directed to the following:

Ann Satkowiak  
Director Services for Students With Disabilities  
Pellissippi State Technical Community College J.L. Goins Administration Building, Room 131 P.O. Box 22990 10915 Hardin Valley Road Knoxville, Tennessee 37933-0990 (865) 694-6751 (Voice/TDD)

EQUAL OPPORTUNITY AND NONDISCRIMINATION IN EDUCATION AND EMPLOYMENT

NOTICE ON CHANGES

The course offerings and requirements of the institution are continually under examination and revision. This Catalog presents the offerings and requirements in effect at the time of publication; it does not guarantee that such offerings and requirements will not be changed or revoked. Adequate and reasonable notice will be given to students affected by any changes. This Catalog is not intended to state contractual terms and does not constitute a contract between the student and the institution.

The institution reserves the right to make changes as required in course offerings, curricula, academic policies, and other rules and regulations affecting students to be effective whenever determined by the institution. These changes will govern current and formerly enrolled students. Enrollment of all students is subject to these conditions. Current information may be obtained from the following sources:

Admission Requirements - Admissions and Records  
Course Offerings - Department offering course  
Degree Requirements - Office of the Vice President of Academic and Student Affairs  
Fees and Tuition - Business and Finance Office

Pellissippi State Technical Community College provides the opportunity for students to increase their knowledge by offering programs of instruction in the various disciplines and programs through faculty who, in the opinion of Pellissippi State, are qualified for teaching at the college level. The acquisition and retention of knowledge by any student is, however, contingent upon the student’s desire and ability to learn and his or her application of appropriate study techniques to any course or program. Thus, the College does not represent that any student who completes a course or program of study will be able to successfully complete any specific examination for any course, degree or license.
Pellissippi State is a vital institution accustomed to transformation and growth. Since its founding in 1974 as State Technical Institute at Knoxville, the College has expanded the teaching of technology, the use of technology in instruction, and the transfer of technology to local business and industry in support of regional economic development.

Having enrolled only 45 students in its first year of operation, the institution experienced steady growth in the ’70s, adding business technology programs to its original core of engineering technology programs. As community awareness grew, so did expectations. In 1988, the Tennessee Board of Regents approved the expansion of the technical institute’s mission to include college transfer programs. This mission expansion was accompanied by a name change to Pellissippi State Technical Community College, and enrollment grew quickly.

Today, approximately 7,500 credit students and 12,500 non-credit students attend Pellissippi State.

The College continues to support and develop career/technical associate’s degrees and certificate programs, university parallel associate’s degree programs, and continuing education opportunities for the citizens of Knox, Blount, and surrounding counties. In partnership with the community, the College sustains the effort toward an ever-improving quality of life for residents of East Tennessee.
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• Campuses and Maps
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MISSION

The mission of Pellissippi State Technical Community College is to serve the needs of its community by providing quality college courses and programs, along with appropriate student support and preparation, and by meeting a broad spectrum of community needs, including training and workforce development, educational support, life enrichment, and civic and cultural advancement.

Features of the Mission

To fulfill its mission, Pellissippi State provides students and other citizens of its community specific offerings in the following areas:

- Associate’s degree and certificate programs that lead to employment in engineering technologies and business
- Associate’s degree programs and courses that prepare students for transfer to baccalaureate-level colleges and universities
- Remedial and developmental education and other educational support programs and services
- General Educational Development (GED) preparation
- Training to meet specific needs of businesses, industries and individuals
- Continuing education programs, seminars and workshops
- Resources for special grade K-12 programs and events
- Support for, involvement in, and promotion of civic and cultural projects and events

To sustain and enhance these offerings, Pellissippi State maintains and continually develops comprehensive fiscal and other administrative services and a physical environment conducive to learning. The College continues a distinctive emphasis on technology that began with its founding in 1974 as a technical institute—learning and leadership in technology and the effective integration of state-of-the-art technology into teaching, educational support, and administration.

Located in Tennessee’s third-largest metropolitan area, Pellissippi State comprehensively serves the greater Knox and Blount County area and extends its engineering technology offerings to Anderson, Loudon, Roane, Cumberland, Campbell, Fentress, Scott, and Morgan counties. A member of the Tennessee Board of Regents System, the College seeks to develop and maintain effective student transfer agreements with TBR universities, the University of Tennessee, and private colleges and universities of the region. In all programs and services, Pellissippi State continually emphasizes the value of diversity among students, personnel, and other constituencies. Services are provided without regard to age, gender, veteran status, religion, race, national origin or disability unrelated to program performance.

Pellissippi State is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools, 1866 Southern Lane, Decatur, Georgia 30033-4097, (404) 679-4501, to award Associate of Arts, Associate of Science, and Associate of Applied Science degrees.
Pellissippi State offers programs, courses and services at four primary locations. Maps are provided below and on the following pages to the Pellissippi Campus, the Division Street Campus, the Magnolia Avenue Campus, the Blount County Center, and for Pellissippi Campus parking. The College also offers courses at other locations in Knox and Blount counties to meet the educational needs of its service area.
The area code for all locations is 865.

<table>
<thead>
<tr>
<th>Phone</th>
<th>Building/Room</th>
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<tbody>
<tr>
<td><strong>Emergencies: 694-6649</strong></td>
<td></td>
</tr>
<tr>
<td>General Information (Pellissippi Campus)</td>
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</tr>
<tr>
<td>Division Street Campus</td>
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<tr>
<td>Magnolia Avenue Campus</td>
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<tr>
<td>Blount County Center</td>
<td>681-1064</td>
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Abbreviation Key:
- GN—Goins Building
- AL—Alexander Building
- MC—McWherter Building
- ER—Educational Resources Building
- SR—Student Recreation Center

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<th>Phone</th>
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<tr>
<td>Academic Advising, Articulation and Curriculum</td>
<td>539-7219 GN128</td>
</tr>
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<td>Academic and Student Affairs, Vice President of</td>
<td>694-6523 GN212</td>
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<td>Admissions and Records</td>
<td>694-6568 GN102</td>
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<td>Adult Education</td>
<td>539-7109 ER330</td>
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<td>Affirmative Action</td>
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<td>Bookstore</td>
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<td>Business and Community Services</td>
<td>539-7167 AL108</td>
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<td>Business and Computer Technology</td>
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<td>Council of Student Advocates (COSA)</td>
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<td>Counseling Office</td>
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<td>Disabilities, Services for Students With</td>
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<td>Engineering and Media Technologies</td>
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<td>Placement</td>
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<td>President, Office of the</td>
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<td>Safety/Security</td>
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<td>Safety/Security (emergency only)</td>
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<td>Student Affairs and Satellite Campuses, Associate Vice President of</td>
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<td>Student Assistance Center</td>
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<td>Student Life and Recreation</td>
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<td>Testing (GED)</td>
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<td>Testing (Exit, Makeup, Placement)</td>
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<tr>
<td>University Connection</td>
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</table>
The Pellissippi State Academic Calendar is subject to change at any time prior to or during an academic term because of emergencies or causes beyond the reasonable control of the College, including severe weather, loss of utility services, or orders by federal or state agencies. In addition to the full-term calendars listed below, Pellissippi State offers accelerated sessions during each of the fall, spring and summer semesters. Consult the current semester’s Schedule of Classes for accelerated session dates, payment deadlines, registration days and other important due dates.

**FALL SEMESTER 2006**

Returning Student Advising ..............................................................April 3-13
Priority Registration (all campuses). ....................................... April 3-August 15
New Faculty Report........................................................................August 14
Deadline to Pay Fees for Priority Registration
   (Registration that occurred on or prior to August 15) ........ August 15
Self-Advising for Returning Students—P.S. ... Web
   (Online Student Information System)..............Ongoing Through August 23
New Student Registration....................................Ongoing Through August 23
All Faculty Report ..........................................................................August 16
Final Registration Apply/Register Deadline.................................August 23
Deadline to Take Placement Test ..................................................August 23
Deadline to Pay Fees for Final Registration..................................August 23
Deadline for 100% Refund ............................................................August 23
Classes Begin..................................................................................August 28
Deadline to Add a Class/Change to or From Audit .................. September 1
Holiday, Labor Day, College Closed ........................................... September 4
Deadline for 75% Refund .............................................................. September 8
Deadline to Submit Waiver or Discount Forms.............................September 8
Deadline to Drop a Class Without a Grade of “W”................... September 10
Deadline for 25% Refund..................................................................September 22
Spring & Summer “I” (Incomplete) Grades Change to “F” .......... October 13
Fall Break........................................................................................October 15-17
Deadline to Drop/Withdraw With a “W” Grade ......................... November 3
Priority Registration for Spring 2007..............................November 13-January 4
Priority Registration for Summer 2007...............................November 13-May 21
Advisor/Student Completion of Intent to Graduate Forms &
   Certificate Applications for Spring & Summer 2007........... November 13-22

**Follow Monday Class Schedule ......................Wednesday, November 22**

Holiday, Thanksgiving, College Closed....................................... November 23-26
Last Day of Classes ......................................................................December 9
Exam Period.....................................................................................December 11-14
Grades Due in the Admissions and Records Office.... 4:30 p.m, December 15
SPRING SEMESTER 2007

Returning Student Advising ................................................... November 13-22
Priority Registration (all campuses) ......................... November 13-January 4
Deadline to Pay Fees for Priority Registration
(Registration that occurred on or prior to January 4) .......... January 4
Faculty Report ........................................................................... January 8
Self-Advising for Returning Students—P.S. ... Web
(Online Student Information System) .............. Ongoing Through January 10
New Student Registration ............................. Ongoing Through January 10
Final Registration Apply/Register Deadline ................................ January 10
Deadline to Take Placement Test ............................................. January 10
Deadline to Pay Fees for Final Registration .... January 10
Deadline for 100% Refund .............................................. January 12
Holiday, Martin Luther King Jr.’s Birthday, College Closed ..................... January 15
Classes Begin ................................................................. January 16
Deadline to Add a Class/Change to or From Audit .......... January 22
Deadline for 75% Refund ............................................... January 29
Deadline to Submit Waiver or Discount Forms ........ January 29
Deadline to Drop a Class Without a Grade of “W” .......... January 29
Deadline for 25% Refund ................................................ February 9
Fall “I” (Incomplete) Grades Change to “F” ................... March 2
Spring Break for Students ............................................. March 4-11
Foundation Scholarship Application
Priority Deadline for Fall 2007 ........................................ March 15
Deadline to Drop/Withdraw With a “W” Grade .......... March 28
Priority Registration for Summer 2007 .................. April 2-May 21
Priority Registration for Fall 2007 ......................... April 2-August 14
Advisor/Student Completion of Intent to Graduate Forms &
Certificate Applications for Summer & Fall 2007 .......... April 2-13
Holiday, College Closed ........................................... April 6-8
Last Day of Classes .................................................. April 28
Exam Period ............................................................... April 30-May 3
Grades Due in the Admissions and Records Office .... 4:30 p.m., May 4
Commencement ......................................................... May 4
SUMMER SESSION 2007/FULL TERM (EIGHT WEEKS)

In addition to the eight-week session listed below, the College offers four-week and five-week sessions during the summer, beginning on May 29 and July 5. See the Spring/Summer Schedule of Classes for details.

Returning Student Advising ..............................................................April 2-13
Priority Registration (all campuses) ............................................. April 2-May 21
Deadline to Pay Fees for Priority Registration
  (Registration that occurred on or prior to May 21) ..................... May 21
Final Registration Apply/Register Deadline................................. May 24
Deadline to Take Placement Test for Full-Term Courses .......... May 24
Deadline to Pay Fees for Final Registration............................... May 24
Deadline for 100% Refund for Full-Term Courses ....................... May 25
Holiday, Memorial Day, College Closed ........................................ May 28
Classes Begin.................................................................................. May 29
Deadline to Add a Class/Change to or From Audit .................... May 30
Deadline to Drop a Class Without a Grade of “W” ....................... June 11
Deadline for 75% Refund for Full-Term Courses ......................... June 11
Deadline to Submit Waiver or Discount Forms
  for Full-Term Courses................................................................. June 11
Holiday, Independence Day, College Closed................................ July 4
Deadline to Drop/Withdraw From Full-Term Courses
  With a “W” Grade....................................................................... July 5
Last Day of Classes for Full-Term Courses.................................. July 24
Grades Due in the Admissions and Records Office ............. 4:30 p.m., July 26
FALL SEMESTER 2007

Returning Student Advising ................................................. April 2-13
Priority Registration (all campuses) ................................. April 2-August 14
New Faculty Report................................................................. August 13
Deadline to Pay Fees for Priority Registration
  (Registration that occurred on or prior to August 14) .......... August 14
All Faculty Report ................................................................. August 15
Self-Advising for Returning Students—P.S. ... Web
  (Online Student Information System) .................. Ongoing Through August 22
New Student Registration ............................................. Ongoing Through August 22
Final Registration Apply/Register Deadline ....................... August 22
Deadline to Take Placement Test ......................................... August 22
Deadline to Pay Fees for Final Registration ......................... August 22
Deadline for 100% Refund .................................................... August 24
Classes Begin ................................................................ August 27
Deadline to Add a Class/Change to or From Audit .......... August 31
Holiday, Labor Day, College Closed ................................. September 3
Deadline for 75% Refund ..................................................... September 7
Deadline to Submit Waiver or Discount Forms ................. September 7
Deadline to Drop a Class Without a Grade of “W” .......... September 9
Deadline for 25% Refund ..................................................... September 21
Spring & Summer “I” (Incomplete) Grades Change to “F” .... October 12
Fall Break ........................................................................ October 14-16
Deadline to Drop/Withdraw With a “W” Grade ............... November 6
Priority Registration for Spring 2008 .................... November 12-January 3
Priority Registration for Summer 2008 ......................... November 12-May 19
Advisor/Student Completion of Intent to Graduate Forms &
  Certificate Applications for Spring & Summer 2008 .... November 12-21

Follow Monday Class Schedule .................. Wednesday, November 21
Holiday, Thanksgiving, College Closed ............................ November 22-25
Last Day of Classes .............................................................. December 8
Exam Period ........................................................................ December 10-13
Grades Due in the Admissions and Records Office.... 4:30 p.m, December 14
SPRING SEMESTER 2008

Returning Student Advising .................................................. November 12-21
Priority Registration (all campuses) ........................................ November 12-January 3
Deadline to Pay Fees for Priority Registration
  (Registration that occurred on or prior to January 3) .............. January 3
Faculty Report .................................................................... January 7
Self-Advising for Returning Students—P.S. ... Web
  (Online Student Information System) ..................... Ongoing Through January 9
New Student Registration .................................................. Ongoing Through January 9
Final Registration Apply/Register Deadline ..................... January 9
Deadline to Take Placement Test ...................................... January 9
Deadline to Pay Fees for Final Registration ........................ January 9
Deadline for 100% Refund ................................................ January 11
Classes Begin .................................................................. January 14
Deadline to Add a Class/Change to or From Audit .............. January 19
Holiday, Martin Luther King Jr.’s Birthday, College Closed ...... January 21
Deadline for 75% Refund .................................................. January 25
Deadline to Submit Waiver or Discount Forms .................... January 25
Deadline to Drop a Class Without a Grade of “W” ............. January 27
Deadline for 25% Refund .................................................. February 11
Fall “I” (Incomplete) Grades Change to “F” ......................... February 29
Spring Break for Students ................................................. March 2-9
Foundation Scholarship Application
  Priority Deadline for Fall 2008 .................................. March 15
Holiday, College Closed ................................................... March 21-23
Deadline to Drop/Withdraw With a “W” Grade .................. March 25
Priority Registration for Summer 2008 ......................... April 7-May 19
Priority Registration for Fall 2008 ................................. April 7-August 12
Advisor/Student Completion of Intent to Graduate Forms &
  Certificate Applications for Summer & Fall 2008 ............ April 7-18
Last Day of Classes .......................................................... April 26
Exam Period ................................................................. April 28-May 1
Grades Due in the Admissions and Record Office .............. 4:30 p.m., May 2
Commencement ................................................................. May 2
In addition to the eight-week session listed below, the College offers four-week and five-week sessions during the summer, beginning on May 27 and July 7. See the Spring/Summer Schedule of Classes for details.

Returning Student Advising ..............................................................April 7-18
Priority Registration (all campuses) ............................................. April 7-May 19
Deadline to Pay Fees for Priority Registration
(Registration that occurred on or prior to May 19) .......................May 19
Final Registration Apply/Register Deadline .....................................May 22
Deadline to Take Placement Test for Full-Term Courses ..........May 22
Deadline to Pay Fees for Final Registration ...................................May 22
Deadline for 100% Refund for Full-Term Courses .................May 23
Holiday, Memorial Day, College Closed .....................................May 26
Classes Begin ..................................................................................May 27
Deadline to Add a Class/Change to or From Audit ....................May 28
Deadline to Drop a Class Without a Grade of “W” .....................June 9
Deadline for 75% Refund for Full-Term Courses .....................June 9
Deadline to Submit Waiver or Discount Forms
for Full-Term Courses ..................................................................June 9
Holiday, Independence Day, College Closed ..............................July 4
Deadline to Drop/Withdraw From Full-Term Courses
With a “W” Grade ............................................................................July 7
Last Day of Classes for Full-Term Courses ...............................July 22
Grades Due in the Admissions and Records Office ............4:30 p.m., July 24
Introduction

In This Section:

- Introduction
- Steps for Admission and Registration
Welcome to Pellissippi State Technical Community College! We’re excited that you’ve chosen to attend our school. Your decision to enroll here may be one of the most important you’ll ever make, and we are dedicated to working with you to achieve both your educational and your life goals. Whether you’re preparing to enter the workforce for the first time, planning to transfer to a four-year institution or simply taking a course for personal growth, we are committed to helping you succeed academically and to providing opportunities for you to broaden your horizons. Our caring faculty and staff look forward to connecting with you soon!

**STEPS FOR ADMISSION AND REGISTRATION**

**STEP 1:** Apply for admission.
**STEP 2:** Apply for financial aid (if needed).
**STEP 3:** Make a testing appointment (if necessary).
**STEP 4:** Meet with an advisor/register.
**STEP 5:** Attend New Student Orientation.
**STEP 6:** Pay tuition and fees/buy books.

Student status: new, returning or special.

**New student.** Student who has never attended Pellissippi State before or who is returning after two years or more of not attending.

**Returning student.** Student who has attended Pellissippi State in the past two years.

**Special student.** Student who does not plan to earn a degree at Pellissippi State.

**Note:** Special students are not eligible for financial aid.

All new and prospective students are invited to attend an information session to guide them through the admission and enrollment process. Visit our Web site or contact our office for details.

**STEP 1: Apply for admission.**

1. Fill out an online or printed application for admission/readmission.
2. Submit application with a $10 nonrefundable fee.
3. For degree-seeking students: Provide all official transcripts (high school, GED, college, military, etc.).

For “special” non-degree students (not working toward a degree): Provide a GED or regular high school diploma. Submit transcript of successful completion of all prerequisite courses if you wish to enroll in college English or mathematics courses or other college-level courses that are the second course in a two-course sequence (e.g., Accounting I and II).

International Student Application for Admission deadlines:
   - Fall semester: August 1
   - Spring semester: December 1

**How to get transcripts/grades.** Make transcript requests in person, by fax or by mail to Admissions and Records, fax (865) 539-7016. Include your name, signature, Campuswide ID or Social Security number and the address to which your
transcript should be mailed. Transcript Request forms are available on P.S. ... Web. Grades become available on P.S. ... Web as they are received and processed.

**STEP 2: Apply for financial aid (if needed).**

1. Apply for admission to Pellissippi State as a degree-seeking student.
2. Complete the 2005-2006 Renewal Application or the Free Application for Federal Student Aid (FAFSA), on paper or on the Web at www.fafsa.ed.gov; paper copies are available at all campuses.
3. Submit documentation (tax returns, verification forms, etc.) to the Pellissippi State Financial Aid Office if requested.

*Note:* Students registering for less than 6 hours for the summer session must stop by the Financial Aid Office to check on their eligibility for a Pell award or student loan. If a student drops below 6 hours at any time during the summer session, the Pell award or student loan may be canceled or reduced, at which time the student may owe for aid already received for the summer session.

**STEP 3: Make a testing appointment (if necessary).**

Students can make a testing appointment by calling the Testing Center, (865) 694-6454. A photo ID and two #2 pencils are required to take the test.

**Who should take a placement test:**

You do not have to take the test—

1. If you have earned college-level credit in English and mathematics at another college or university or
2. You have ACT, SAT or other placement test scores from another Tennessee Board of Regents college for a test taken within the past three years.

You do have to take the test—

1. If you have not earned college-level credit in English and mathematics from another college or university or
2. You do not have test scores that meet the criteria in No. 2 above.

*Note:* Test scores are used for appropriate placement, not for acceptance to the College.

**STEP 4: Meet with an advisor/register.**

Pellissippi State encourages students to register early, during the period called Priority Registration. Priority registering offers the benefit of a wider selection of classes and an opportunity to meet privately with an academic advisor. Students who do not priority register can take part in Final Registration. Class choices are more limited, and only general advisors are available during Final Registration. Priority Registration takes place several months before Final Registration. Final Registration takes place a few days before classes begin.

**Self-advising.** Special and returning students are permitted to register without seeing their advisor. Students who choose to self-advice take full responsibility for ensuring that their course selections meet requirements for their program of study and that prerequisites are met.
How to register:

We offer two ways to register:

1. Online. To register or drop*/add using our online system, P.S. ... Web, follow the instructions in “How to Register Online (P.S. ... Web)” in this section.

2. In person. To register or drop/add in person, visit one of our campuses during their respective registration periods.

*To drop a Developmental Studies Program (DSP) course after classes begin, you must get permission from the DSP director.

Priority Registration. New students whose application files are complete may participate in Priority Registration by calling the Student Assistance Center for an advising appointment—(865) 694-6556; appointments may be made starting two weeks prior to the first day of Priority Registration. Appointments are available on a first-come, first-served basis.

Special students who do not self-advise may be advised through the Admissions and Records Office or may request that a faculty advisor be assigned to them.

Returning students may register on PS. ... Web once Priority Registration begins. With the exception of students who request to self-advise, degree-seeking students are assigned a faculty advisor before Priority Registration begins. Students are encouraged to see their assigned advisor before registering for courses. In addition to office hours, faculty advisors provide extra appointments during the first two weeks of the Priority Registration period. Assigned faculty advisors are not available between semesters or during the summer.

Final Registration. New students who have not participated in Priority Registration and returning students who have not registered and who need assistance with scheduling must attend Final Registration.

How to register online (P.S. ... Web):

1. Go to our homepage: www.pstcc.edu. Click on P.S. ... Web (left side of screen).

2. Select Student Services.

3. Enter your student ID number (either your Social Security number or your Campuswide ID). Enter your PIN number. Note: The first time you use P.S. ... Web, your PIN will be your birthdate. Enter six digits including zeroes (e.g., January 5, 1975, is 010575). Click on Login button once. (Double clicking may end your session.) The system will then require you to change your PIN to another six-digit number. The number you enter will be your PIN the next time you use the P.S. ... Web registration system. You will be required to log in again with your new PIN and set up a PIN question and answer. If your PIN is not accepted, click on I Forgot My PIN or contact Admissions and Records, (865) 694-6561.

4. Choose Registration & Schedule, then the term you want to register. Click on the Select button.

5. Select Registration Status. (You may need to clear holds or see your advisor.)
Select Drop/Add Classes (bottom of the screen).
In This Section:
- Statement of Philosophy for the First Year of College
- Academic Degrees
- Graduation Requirements
Pellissippi State offers a variety of educational opportunities to meet the needs of students with diverse backgrounds and interests. Each program of study is built on a set of broad educational goals. Academic and student support services are provided throughout the student’s educational career to encourage academic achievement and personal growth. The College is especially committed to providing new students with experiences that recognize their unique and diverse needs and maximize their opportunities to succeed. This commitment is articulated in Pellissippi State’s Statement of Philosophy for the First Year of College:

The faculty and staff at Pellissippi State Technical Community College believe that the first-year experience is critically important in providing the foundation for college success and lifelong learning. To best serve the unique needs of first-year students, we commit to the following:

- Facilitating new student transition to the college campus.
- Providing high-quality instruction during the first year.
- Establishing positive mentoring and advising relationships with beginning students.
- Supporting a vibrant college culture where students experience and express diverse world views.
- Offering a comprehensive range of activities and opportunities to enhance learning and personal growth.
- Evaluating the results of our efforts addressing first-year student needs.

By providing first-year students with exceptional opportunities for growth and involvement, we believe they will connect more deeply with the College community, achieve their academic goals and gain a clearer, fuller vision of their lifetime direction.

Pellissippi State operates on the semester system, with the standard academic year consisting of two terms of 15 weeks each. The standard credit is the semester hour.

**Academic degrees.** Pellissippi State offers the following academic degrees:

**Associate of Arts (A.A.)**—refer to College Transfer/University Parallel Programs.

**Associate of Science (A.S.)**—refer to College Transfer/University Parallel Programs.

**Associate of Applied Science (A.A.S.)**—refer to Career/Technical Programs.

**Graduation requirements.** In order to obtain a degree or certificate, students must complete the general requirements as prescribed by Pellissippi State and specific requirements set forth for the program. Requirements include

1. Minimum residence for associate’s degrees. The last 20 credit hours preceding graduation with an associate’s degree must be completed at Pellissippi State. For an active-duty service member, 25 percent of the required credit hours must be completed at Pellissippi State. In addition, at least 12 hours of coursework in the major preceding graduation with an Associate of Applied Science degree must be completed at Pellissippi State.
Minimum residence for certificates. Thirty percent or more of the total credit hours required for certificate completion must be completed at Pellissippi State. For an active-duty service member, 25 percent of the required credit hours must be completed at Pellissippi State.

2. Minimum credit hours. Each candidate must complete at least 60 credit hours to be eligible for the associate’s degree.

3. Minimum grade-point average. A cumulative grade-point average (GPA) of at least 2.0 on all college-level coursework at Pellissippi State is required for graduation.

4. Major studies. Completion of the curriculum for the major chosen is required for graduation.

5. Degree application. Each prospective candidate must file an Intent to Graduate form during the semester preceding the semester of anticipated graduation and pay a $25 graduation fee. Forms may be obtained in the Cashier’s Office.

6. Catalog option. The student must meet the requirements for graduation under any one catalog in effect during the student’s attendance at Pellissippi State, provided that the catalog used is within six years of the date of graduation. Articulation agreements may specify shorter completion periods. This option does not exempt anyone from the general requirements of Pellissippi State.

7. Commencement. An annual commencement exercise is scheduled at the end of each spring semester.

8. Exit testing. As required by public policy, a student may, as a prerequisite for graduation, be required to take one or more tests designed to measure achievement in general education and in the major. The purpose of such examinations is to evaluate the effectiveness of the College or the program. Participation in testing may be required of all students, in selected programs, and/or of students selected on a sample basis. In order to comply fully with this provision, students must authorize the release of their scores to the College. Unless otherwise provided for in an individual major, however, no minimum score or level of achievement is required for graduation. Individual student scores are confidential. Students not complying with requested testing provisions will have their transcripts and diplomas placed on hold.

9. Candidates for a second associate’s degree must meet the following requirements:
   A. The first degree must have been awarded by Pellissippi State or another associate’s degree-granting institution of higher learning.
   B. A minimum of 20 semester hours of coursework must have been completed at Pellissippi State after requirements for the first associate’s degree.
   C. All curriculum requirements for Pellissippi State must be met.
   D. A 2.0 grade-point average must be attained on all college-level coursework.
In This Section:

- General Education Goals
- General Education Course Listings
Pellissippi State faculty and staff expect that all degree-seeking students will be provided a strong general education. College curricula and supporting activities are designed to enhance personal and professional success by developing knowledge and skills in the areas of communication, humanities/fine arts, social/behavioral sciences, history, natural sciences, mathematics and technological literacy. Goals for student learning in each of these areas have been developed in conjunction with other Tennessee Board of Regents institutions and the TBR system. These include

**Communication**—Enhance the effective use of the English language essential to success in school and in the world by way of learning to read and listen critically and to write and speak thoughtfully.

**Humanities/Fine Arts**—Enhance the understanding of students, who as citizens and educated members of their communities need to know and appreciate their own human cultural heritage and its development in a historical and global context.

**Social/Behavioral Sciences**—Develop an understanding of self and the world by examining the content and processes used by social and behavioral sciences to discover, describe, explain, and predict human behavior and social systems; enhance knowledge of social and cultural institutions and the values of this society and other societies and cultures in the world; and understand the interdependent nature of the individual, family, and society in shaping human behavior and determining quality of life.

**History**—Develop an understanding of the present that is informed by an awareness of past heritages, including the complex and interdependent relationships between cultures and societies.

**Natural Sciences**—Enhance abilities to define and solve problems, reason with an open mind, think critically and creatively, suspend judgment, and make decisions that may have local or global significance.

**Mathematics**—Expand understanding of mathematics beyond the entry-level requirements for college, and extend knowledge through relevant mathematical modeling with applications, problem solving, critical thinking skills, and use of appropriate technologies.

**Technological Literacy**—Understand the role of technology in society and possess the skills necessary to adapt to changing computer and information technologies.

Courses designated to fulfill general education at Pellissippi State Technical Community College are listed below. See the College Transfer/University Parallel Programs section and the Career/Technical Programs section of this Catalog for the number of credit hours required for each category.
<table>
<thead>
<tr>
<th>Course Prefix/Number</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMUNICATION CATEGORY</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
</tr>
<tr>
<td>ENGL 1020</td>
<td>English Composition II</td>
</tr>
<tr>
<td>SPH 2100</td>
<td>Public Speaking</td>
</tr>
<tr>
<td><strong>HUMANITIES/FINE ARTS CATEGORY</strong></td>
<td></td>
</tr>
<tr>
<td>ART 1720</td>
<td>Western Art I</td>
</tr>
<tr>
<td>ART 1730</td>
<td>Western Art II</td>
</tr>
<tr>
<td>ENGL 2110</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENGL 2120</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENGL 2210</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENGL 2220</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENGL 2310</td>
<td>World Literature I</td>
</tr>
<tr>
<td>ENGL 2320</td>
<td>World Literature II</td>
</tr>
<tr>
<td>ENGL 2331</td>
<td>African-American Literature</td>
</tr>
<tr>
<td>ENGL 2510</td>
<td>Introduction to Poetry</td>
</tr>
<tr>
<td>ENGL 2520</td>
<td>Introduction to Drama</td>
</tr>
<tr>
<td>HUM 2810</td>
<td>Introduction to Film Studies</td>
</tr>
<tr>
<td>MUS 1030</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 1040</td>
<td>Music in World Cultures</td>
</tr>
<tr>
<td>PHIL 1030</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL 2400</td>
<td>Introduction to Ethics</td>
</tr>
<tr>
<td>THEA 1030</td>
<td>Introduction to Theatre</td>
</tr>
<tr>
<td><strong>SOCIAL/BEHAVIORAL SCIENCES CATEGORY</strong></td>
<td></td>
</tr>
<tr>
<td>ANT 1300</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ECN 2010</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>GEOG 1000</td>
<td>Introduction to Geography</td>
</tr>
<tr>
<td>HIST 2040</td>
<td>African-American Studies</td>
</tr>
<tr>
<td>POL 1010</td>
<td>U.S. Government &amp; Politics</td>
</tr>
<tr>
<td>POL 1020</td>
<td>Introduction to Political Science</td>
</tr>
<tr>
<td>PSY 1010</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSY 2100</td>
<td>Psychology of Human Development</td>
</tr>
<tr>
<td>PSY 2400</td>
<td>Human Development Through the Lifespan</td>
</tr>
<tr>
<td>SOC 1010</td>
<td>General Sociology</td>
</tr>
<tr>
<td>SOC 1020</td>
<td>Social Problems &amp; Social Change</td>
</tr>
<tr>
<td>WMN 2200</td>
<td>Women in Society</td>
</tr>
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</table>
### HISTORY CATEGORY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HIST 1010</td>
<td>Western Civilization I</td>
</tr>
<tr>
<td>HIST 1020</td>
<td>Western Civilization II</td>
</tr>
<tr>
<td>HIST 1110</td>
<td>World Civilization I</td>
</tr>
<tr>
<td>HIST 1120</td>
<td>World Civilization II</td>
</tr>
<tr>
<td>HIST 2010</td>
<td>U. S. History I</td>
</tr>
<tr>
<td>HIST 2020</td>
<td>U. S. History II</td>
</tr>
</tbody>
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### NATURAL SCIENCES CATEGORY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 1110</td>
<td>General Biology I</td>
</tr>
<tr>
<td>BIOL 1120</td>
<td>General Biology II</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Concepts of Biology</td>
</tr>
<tr>
<td>BIOL 2010</td>
<td>Human Anatomy &amp; Physiology I</td>
</tr>
<tr>
<td>BIOL 2020</td>
<td>Human Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>BOT 1010</td>
<td>Fundamentals of Botany I</td>
</tr>
<tr>
<td>BOT 1020</td>
<td>Fundamentals of Botany II</td>
</tr>
<tr>
<td>CHEM 1010</td>
<td>Principles of Chemistry</td>
</tr>
<tr>
<td>CHEM 1020</td>
<td>Basic Organic &amp; Biochemistry</td>
</tr>
<tr>
<td>CHEM 1110</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 1120</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 1310</td>
<td>Concepts of Chemistry</td>
</tr>
<tr>
<td>GEOL 1040</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>GEOL 1050</td>
<td>Historical Geology</td>
</tr>
<tr>
<td>GEOL 1300</td>
<td>The Environment W/ Lab</td>
</tr>
<tr>
<td>GEOL 1310</td>
<td>Concepts of Earth Science</td>
</tr>
<tr>
<td>PHYS 1300</td>
<td>Concepts of Physics</td>
</tr>
<tr>
<td>PHYS 2010</td>
<td>Non-calculus Based Physics I</td>
</tr>
<tr>
<td>PHYS 2020</td>
<td>Non-calculus Based Physics II</td>
</tr>
<tr>
<td>PHYS 2110</td>
<td>Calculus Based Physics I</td>
</tr>
<tr>
<td>PHYS 2120</td>
<td>Calculus Based Physics II</td>
</tr>
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</table>

### MATHEMATICS CATEGORY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1010</td>
<td>Survey of Mathematics</td>
</tr>
<tr>
<td>MATH 1130</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MATH 1530</td>
<td>Elementary Probability &amp; Statistics</td>
</tr>
<tr>
<td>MATH 1630</td>
<td>Finite Mathematics</td>
</tr>
<tr>
<td>MATH 1710</td>
<td>Precalculus Algebra</td>
</tr>
<tr>
<td>MATH 1720</td>
<td>Precalculus Trigonometry</td>
</tr>
<tr>
<td>MATH 1730</td>
<td>Precalculus</td>
</tr>
<tr>
<td>MATH 1830</td>
<td>Basic Calculus &amp; Modeling</td>
</tr>
<tr>
<td>MATH 1910</td>
<td>Calculus</td>
</tr>
</tbody>
</table>
In This Section:

• University Parallel Guarantee
• Articulation Agreements
• General Associate’s Degrees
• TBR General Education Core and Transferability of Courses Among TBR Institutions
• General Associate of Arts and Associate of Science Program Requirements
• Associate of Science in Teaching Program Requirements
• University Connection
• Regents Online Degree Programs
Students planning to earn a baccalaureate degree at a four-year college or university may complete the first two years at Pellissippi State by earning either the Associate of Arts or the Associate of Science degree, each requiring a minimum of 60 semester hours. A broad selection of courses is offered that will transfer to four-year institutions. “University Parallel” program requirements are specified by

- **Articulation agreements.** Prescribed curricula developed cooperatively by Pellissippi State and area four-year colleges and universities
- **General associate’s degree requirements.** Programs designed with the flexibility to allow the student to select courses that parallel the requirements of the four-year institution to which he/she intends to transfer.

University Parallel core curriculum requirements are applicable to associate’s degrees earned by completing the requirements of an articulation agreement or a general associate’s degree. An academic advisor is provided for each University Parallel student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor. The Academic Advising, Articulation and Curriculum Office coordinates transfer student advisement and inter-institutional articulation.

**UNIVERSITY PARALLEL GUARANTEE**

Pellissippi State will refund the tuition of any Pellissippi State graduate for any course passed with at least a C grade if that earned course credit does not transfer to a college or university within two years of graduation from Pellissippi State. Such courses must be listed as transferable on the transfer equivalency table provided by the receiving institution. The transfer guarantee program is limited to those institutions maintaining an articulation agreement with Pellissippi State and to the courses identified in transfer equivalency documents.

**ARTICULATION AGREEMENTS**

An articulation agreement is a document that specifies the curriculum agreed to by Pellissippi State and a four-year college or university to satisfy the degree requirements at Pellissippi State and at the receiving institution. Completion of freshman and sophomore requirements leads to an associate’s degree at Pellissippi State. The remaining requirements for the baccalaureate degree are completed at the four-year institution. Students must successfully complete all courses outlined in a particular program and must satisfy all other academic regulations of Pellissippi State and the receiving institution. Exceptions to the agreement can only be approved by the four-year institution.

Pellissippi State has program-specific articulation agreements with East Tennessee State University, Tennessee Wesleyan College, Lincoln Memorial University, Maryville College, Tennessee Technological University, Tusculum College and the University of Tennessee at Knoxville.

Information on articulation agreement requirements is provided by academic advisors, the Student Assistance Center and the Curriculum Office. Agreements are also available online at www.pstcc.edu/departments/curriculum_and_instruction. Program-specific agreements include the following:
Students not following an articulation agreement should plan their program of study in consultation with their Pellissippi State advisor and an advisor at the receiving institution. Tables listing Pellissippi State courses and equivalent courses at four-year colleges and universities in Tennessee are available for use in program planning. Transfer equivalencies have been developed for courses offered at Austin Peay State University, Carson-Newman College, East Tennessee State University, Maryville College, Middle Tennessee State University, Tennessee State University, Tennessee Technological University, Tennessee Wesleyan College, Tusculum College, the University of Memphis, the University of Tennessee at Chattanooga, the University of Tennessee at Martin and the University of Tennessee at Knoxville.
TBR GENERAL EDUCATION CORE AND TRANSFERABILITY OF COURSES AMONG TBR INSTITUTIONS

Effective as of fall semester 2004, each institution in the State University and Community College System of Tennessee (the Tennessee Board of Regents System) shares a common lower-division general education core curriculum of 41 semester hours for baccalaureate degrees and the Associate of Arts and the Associate of Science degrees. “Lower-division” means freshman and sophomore courses. The courses comprising the general education curriculum are contained within the following subject categories:

Baccalaureate Degrees and Associate of Arts and Associate of Science Degrees*

<table>
<thead>
<tr>
<th>Subject Category</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>9 hours**</td>
</tr>
<tr>
<td>Humanities and/or Fine Arts</td>
<td>9 hours</td>
</tr>
<tr>
<td></td>
<td>(At least one course must be in literature)</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6 hours</td>
</tr>
<tr>
<td>History</td>
<td>6 hours***</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>8 hours</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3 hours</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>41 hours</td>
</tr>
</tbody>
</table>

* Foreign language courses are an additional requirement for the Associate of Arts (A.A.) and Bachelor of Arts (B.A.) degrees. The B.A. degree requires proficiency in a foreign language equivalent to completion of two years of college-level work. The A.A. degree requires proficiency in a foreign language equivalent to completion of one year of college-level work.

** Six hours of English composition and 3 hours in English oral presentational communication are required.

*** Students who plan to transfer to Tennessee Board of Regents universities should take 6 hours of U.S. history (3 hours of Tennessee history may substitute). Students who plan to transfer to University of Tennessee System universities or to out-of-state or private universities should check requirements and take the appropriate courses.

Although the courses designated by Tennessee Board of Regents institutions to fulfill the requirements of the general education subject categories vary, transfer of the courses is assured through the following means:

- Upon completion of an A.A or A.S. degree, the requirements of the lower-division general education core will be complete and accepted by a TBR university in the transfer process.
- If an A.A. or A.S. is not obtained, transfer of general education courses will be based upon fulfillment of complete subject categories. (Example: If all eight hours in the category of Natural Sciences are complete, then this “block” of the general education core is complete.)
is incomplete, course-by-course evaluation will be conducted. The provision of block fulfillment pertains also to students who transfer among TBR universities.

• Institutional/departmental requirements of the grade of C will be honored. Even if credit is granted for a course, any specific requirements for the grade of C by the receiving institution will be enforced.

• In certain majors, specific courses must be taken also in general education. It is important that students and advisors be aware of any major requirements that must be fulfilled under lower-division general education.

A complete listing of the courses fulfilling general education requirements for all system institutions is available on the TBR Web site (www.tbr.state.tn.us) under Transfer and Articulation Information.

**GENERAL ASSOCIATE OF ARTS AND ASSOCIATE OF SCIENCE PROGRAM REQUIREMENTS**

Specific majors are not listed for the general Associate of Arts and Associate of Science degrees because baccalaureate degree program requirements vary at four-year institutions. General associate’s degree requirements provide a range of course options that permit students to design a program of study that closely matches the first two years of most baccalaureate degree programs.

**Contact(s):** Admissions and Records, (865) 694-6568

**General A.A. and A.S. Degrees—Courses and Course Sequence**

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. Prior to registering each semester, the student is expected to consult with his/her advisor.

**Semester I (Fall)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>FREN/GERM/SPAN 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HIST 2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>NS 3</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>SBS 4</td>
<td></td>
<td>3-4</td>
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</table>

**Semester II (Spring)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3</td>
</tr>
<tr>
<td>FREN/GERM/SPAN 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HIST 2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>NS 3</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>SPH 2100</td>
<td></td>
<td>3</td>
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</table>

**Semester III (Fall)**

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<tr>
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<th>Code</th>
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</thead>
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<tr>
<td>ENGL 6</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH 7</td>
<td></td>
<td>3-5</td>
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<tr>
<td>Semester IV (Spring)</td>
<td>ELEC 5</td>
<td>Approved Electives ...........................................6</td>
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<td>--------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>HUM 8</td>
<td>Humanities Electives .........................................6</td>
</tr>
<tr>
<td>SBS 4</td>
<td></td>
<td>Social/Behavioral Sciences Elective .........................3</td>
</tr>
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**Total Credit Hours Needed for Graduation:** 60

<table>
<thead>
<tr>
<th>F</th>
<th>R</th>
<th>E</th>
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</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>P</td>
<td>A</td>
<td>N</td>
<td>/</td>
</tr>
</tbody>
</table>

**GERM 1** A sequence is required for Associate of Arts degrees only. Students lacking two years of study in the same foreign language should take one year of beginning foreign language prior to enrolling in intermediate courses. Associate of Science students should substitute the 6 hours of foreign language with electives.

**HIST 2** Select sequence from HIST 1010-1020, 1110-1120, 2010-2020. Students who plan to transfer to Tennessee Board of Regents universities should take 6 hours of U.S. history (3 hours of Tennessee history may substitute). Students who plan to transfer to University of Tennessee System universities or to out-of-state or private universities should check requirements and take the appropriate courses.

**NS 3** Chosen from BIOL 1110, 1120, 2010, 2020; BOT 1010, 1020; CHEM 1010, 1020, 1110, 1120; GEOL 1040, 1050, 1300; PHYS 2010, 2020, 2110, 2120.

**SBS 4** Chosen from ANT 1300; ECN 2010; GEOG 1000; HIST 2040; POL 1010, 1020; PSY 1010, 2100, 2400; SOC 1010, 1020; WMN 2200.

**ELEC 5** Any transferable course; check course equivalency tables and/or catalogs of the college or university to which the student intends to transfer. Associate of Arts degrees require 13 hours of elective courses; Associate of Science degrees require 19 hours.

**ENGL 6** Chosen from ENGL 2110, 2120, 2210, 2220, 2310, 2320, 2331, 2510, 2520.

**MATH 7** Chosen from MATH 1010, 1130, 1530, 1630, 1710, 1720, 1730, 1830, 1910.

**HUM 8** Chosen from ART 1720, 1730; ENGL 2110, 2120, 2210, 2220, 2310, 2320, 2331, 2510, 2520; HUM 2810; MUS 1030, 1040; PHIL 1030, 2010, 2400; THEA 1030.

**GENERAL ASSOCIATE OF SCIENCE IN TEACHING PROGRAM REQUIREMENTS**

The community colleges and universities of the Tennessee Board of Regents system have joined together to develop a common core of courses for prospective elementary school teachers consisting of an introduction to teaching and technology course and standards-based mathematics and science courses. The common core for the Associate of Science in Teaching (A.S.T.) degree allows prospective teachers to transfer from Pellissippi State to any TBR university as a junior and without loss of credit. In addition to the curriculum requirements listed below, students must attain a
cumulative grade-point average of 2.75, successfully complete the Praxis I exam and must achieve a satisfactory rating on an index of suitability for the teaching profession.

Contact(s): Meg Moss, Program Coordinator, mvoss@pstcc.edu, (865) 694-6673; Admissions & Records, (865) 694-6568

A.S.T. Degree—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. Prior to registering each semester, the student is expected to consult with his/her advisor.

<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
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<td>BIOL 1310</td>
<td>Concepts of Biology</td>
<td>3</td>
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<tr>
<td>EDU 2010</td>
<td>Intro to Teaching &amp; Technology</td>
<td>3</td>
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<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
<td>3</td>
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<td>HIST 2010</td>
<td>U.S. History I</td>
<td>3</td>
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<tr>
<td>MATH 1410</td>
<td>The Structure of the Number System</td>
<td>3</td>
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<td>Concepts of Chemistry</td>
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<tr>
<td>ENGL 1020</td>
<td>English Composition II</td>
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<td>HIST 2020</td>
<td>U.S. History II</td>
<td>3</td>
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<tr>
<td>MATH 1420</td>
<td>Geometry/Statistics</td>
<td>3</td>
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<tr>
<td>MUS 1030</td>
<td>Music Appreciation</td>
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<table>
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<th>Semester III (Fall)</th>
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<td>ECED 2060</td>
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<tr>
<td>ENGL 1</td>
<td>Literature Elective</td>
<td>3</td>
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</tr>
<tr>
<td>GEOL 1310</td>
<td>Concepts of Earth Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 1530</td>
<td>Elementary Probability &amp; Statistics</td>
<td>3</td>
<td></td>
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<tr>
<td>SPH 2100</td>
<td>Public Speaking</td>
<td>3</td>
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<th>Semester IV (Spring)</th>
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<tr>
<td>GEOG 1000</td>
<td>Introduction to Geography</td>
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<tr>
<td>HUM 2</td>
<td>Humanities Elective</td>
<td>3</td>
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<tr>
<td>PHYS 1300</td>
<td>Concepts of Physics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>POL 1010</td>
<td>U.S. Government &amp; Politics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSY 2100</td>
<td>Psychology of Human Development</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours Needed for Graduation: 60

ENGL 1 Chosen from ENGL 2110, 2120, 2210, 2220, 2310, 2320, 2331, 2510, 2520.

HUM 2 Chosen from ART 1720, 1730; ENGL 2110, 2120, 2210, 2220, 2310, 2320, 2331, 2510, 2520; HUM 2810; MUS 1030, 1040; PHIL 1030, 2010, 2400; THEA 1030.

UNIVERSITY CONNECTION

Pellissippi State partners with Tennessee Board of Regents universities to allow students to earn a baccalaureate degree on the Pellissippi State campus. University Connection agreements with East Tennessee State University allow students earning an Associate of Applied Science degree in selected business,
engineering and interior design programs to continue their work toward the bachelor’s degree. Students interested in pursuing careers as elementary school teachers are able to complete their bachelor’s degrees through Tennessee Technological University. For further information, contact the University Connection Office, (865) 694-6449; visit the Web site, www.pstcc.edu/uc; or contact Admissions and Records, (865) 694-6568.

**REGENTS ONLINE DEGREE PROGRAMS**

The Tennessee Board of Regents colleges and universities have joined together in offering Regents Online Degree Programs. Courses completed in RODP are entirely online and are completely transferable among all the participating institutions that are accredited. Students are able to choose the college or university that will award their degree. All 13 TBR two-year colleges deliver and award associate’s degrees, and all six TBR universities deliver and award bachelor’s degrees. A Career/Technical program leading to the Associate of Applied Science degree in Professional Studies with a concentration in Information Technology is available through Pellissippi State. Students can further their education after the associate’s degree by pursuing one of three bachelor’s degree programs:

- Bachelor of Professional Studies/Information Technology Concentration
- Bachelor of Professional Studies/Organizational Leadership Concentration
- Bachelor of Interdisciplinary Studies
  (General Studies/Liberal Studies/University Studies)

Students who pursue online programs should be highly motivated, independent, active learners who have good organizational and time management skills. Students should also have the discipline to study without external reminders and be able to adapt to new learning environments. Visit www.tn.regentsdegrees.org or call 1-888-223-0023 for more information.
Career/Technical Programs

In This Section:

• Career Technical Programs—Associate of Applied Science Degree
• Career/Technical Guarantee
• Regents Online Degree Programs
• Career/Technical Program Options
• Career/Technical Core Curriculum
• Cooperative Education
• Cooperative Education Courses
• Career/Technical Program Descriptions and Requirements
Pellissippi State offers 19 programs that prepare students for business and technical careers. These programs are designed for the student whose primary educational goal is entry-level employment or career advancement. The placement rate for Career/Technical graduates is consistently above 90 percent. The College’s Career/Technical programs are continually revised to reflect the changes in the skills and knowledge graduates need to be successful in responsible positions in business and industry. These programs are not designed for transfer to baccalaureate institutions; however, general education typically transfers to most four-year colleges and universities. Several Engineering and Media Technologies programs are fully transferable to East Tennessee State University.

The degree earned is the Associate of Applied Science. All Associate of Applied Science degree programs offered at Pellissippi State require a minimum of 60 semester hours.

**CAREER/TECHNICAL GUARANTEE**

**The Job Competency Guarantee Program**

The faculty of Pellissippi State guarantee that any graduate of a Career/Technical Associate of Applied Science degree program judged by his/her employer as lacking in the technical job skills expected of an entry-level employee will be provided additional courses (up to 15 semester hours) by Pellissippi State AT NO CHARGE.

**The Degree**

The graduate must have earned a Career/Technical Associate of Applied Science degree in June 1988 or thereafter as evidenced by the area of concentration designated on the student transcript. The student must have earned at least a C in all major courses of study.

**The Employment**

The employment must be full time, and the job must be certified by the Placement Office as directly related to the graduate’s program of study. Initial date of employment of the graduate must be within one year of completion of program requirements.

The employer must provide Pellissippi State written notification that the employee is lacking the job entry-level knowledge and skills identified at the time of initial employment and must specify the area(s) of deficiency within 90 days of the graduate’s initial employment.

Affective behaviors, such as attitude, judgment and interpersonal relations, will be considered job competencies for purposes of the guarantee, provided that formal instruction in appropriate affective behaviors is included within the specialty area.
The Retraining Guarantee

Skill retraining will be limited to 15 semester credit hours and to enrollment in credit courses regularly offered by Pellissippi State. The skill retraining must be completed in one academic year.

The employer, the graduate and a college counselor, with the advice of appropriate teaching faculty, will develop an educational plan that specifies the course(s) constituting the 15 credit hours of retraining. The graduate must meet all prerequisites, corequisites and other admission requirements for retraining courses. Failure, withdrawal or audit of a retraining course(s) is creditable to the 15 credit hour limit.

Pellissippi State will waive tuition and fees. The graduate or the employer will bear the costs of books, supplies and other related costs.

REGENTS ONLINE DEGREE PROGRAMS

See the College Transfer/University Parallel Programs section of this Catalog for information about Regents Online Degree Programs.
CAREER/TECHNICAL PROGRAM OPTIONS

Program information is provided in this section for each of the following Career/Technical Programs:

Civil Engineering Technology
Computer Accounting
Computer Integrated Drafting and Design Technology
Computer Science and Information Technology
Database Design and Development Concentration
Internet Software Development Concentration
Programming Concentration
E-Commerce/Marketing
Early Childhood Education
Electrical Engineering Technology
General Technology
Geographic Information Systems Business Concentration Technology Concentration
High Performance Computing
Hospitality
Interior Design Technology

Management
Mechanical Engineering Technology
Manufacturing Concentration
Mechanical Concentration
Quality Control Concentration
Media Technologies
Communication Graphics Technology
Photography
Video Production Technology
Web Technology
Networking and Communications Systems Technology
Office Systems Technology
Business Concentration
Health Care Office Administration Concentration
Paralegal Studies
Security Engineering and Administration Technology
CAREER/TECHNICAL CORE CURRICULUM*

<table>
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<th>Courses</th>
<th>Credit Hours</th>
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<tr>
<td>Humanities and/or Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics/Natural Sciences</td>
<td>3-5</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3-4</td>
</tr>
<tr>
<td>General Education Elective</td>
<td>3-5</td>
</tr>
</tbody>
</table>

Total Core: 15+

Major: 45+

Total: 60+

* Courses designated to fulfill General Education at Pellissippi State Technical Community College are published in the General Education section of this Catalog.

COOPERATIVE EDUCATION

The Cooperative Education Program (Co-op) enhances the Career/Technical programs by offering students the opportunity to integrate classroom theory with practical work experience. Paid work experiences are arranged in career-related areas to benefit both the student and the employer. This hands-on work experience enables the student to attain increased self-confidence, increased marketability upon graduation, and academic credit and income while in school. For the employer, the program provides highly motivated students for entry-level positions and a source for potential employees.

Eligibility. To qualify for the Cooperative Education Program, the student must be enrolled in a Career/Technical program at Pellissippi State, must be in good standing academically, and must have completed 15 or more credit hours of college-level courses in the major. A student who is appropriately placed on the job in her/his career major upon entering Pellissippi State may be eligible for immediate enrollment in Co-op.

Credit. Academic credits are awarded for the cooperative work experience on a variable scale based upon the number of hours on the job. To earn one academic credit, the student must work 45 hours on the job. Tuition will be calculated according to the projected credit hours to be earned in co-op work experience during the semester. Once placed in a position by the Co-op Office, the student is required to register for Cooperative Education course credit each semester worked. Since co-op courses will be add-on credit, a student may earn credits as long as she/he is eligible to remain in the Co-op program. If a student is registered for 12 credit hours, no additional payment will be required when adding co-op hours during a term. However, students registered for less than 12 credit hours will be required to pay for co-op credit hours.

Grades. The grading for the cooperative education work experience will be PASS/NO PASS/WITHDRAW. A grade designation is given where cooperative work experience is used for course substitution.
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Hours of Work</th>
<th>Credit Hours</th>
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CIVIL ENGINEERING TECHNOLOGY

Accreditation. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-401, (410) 347-7700.

Program description. The Civil Engineering Technology program offers a core curriculum that provides an academic/technical foundation to train technicians to function effectively as assistants to civil engineers, environmental engineers, architects, developers or construction managers.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:
- Plan Reviewer or Building Inspector
- Junior Estimator
- Materials Lab Technician
- Engineering Field Representative
- Junior Bridge Inspector and Field Layout Person
- Survey Party Member

Educational objectives. After successfully completing the Civil Engineering Technology program, the graduate will be qualified to accomplish the following objectives related to civil engineering technology:

I. Undertake a career in civil engineering technology or a closely related field.
II. Communicate effectively with colleagues and the public using written, verbal or graphic skills.
III. Work in multidisciplinary teams to solve problems through contributing ideas and respecting the ideas and attitudes of others.
IV. Think creatively and synthesize the multidisciplinary skills of mathematics, natural sciences, and engineering and technology to solve problems.
V. Demonstrate good citizenship, professionalism and leadership.
VI. Demonstrate a commitment to quality, timeliness and lifelong learning.

Program outcomes. Upon completion of the Civil Engineering Technology program, the student will have demonstrated the ability to

A. Understand and apply the basic skills of civil engineering technology.
B. Make land measurements and construction layouts using industry-standard equipment and procedures.
C. Select the appropriate construction methods and materials and, using industry-standard software, estimate cost, schedule work, and track progress.
D. Conduct standard tests on construction materials and soils, analyze the results and prepare a technical report using word-processing and spreadsheet software.
E. Complete assigned tasks within the time allotted.
F. Perform work in a team environment, recognizing the dynamics of diverse personality types.
G. Present oral and written reports.
H. Produce drawings using industry-standard drafting software.
I. Apply the principles of mathematics and natural sciences to the solution of civil engineering technology problems.
J. Use creative thinking skills and industry-standard software to solve technical problems.
K. Value professional ethics and personal integrity in the workplace and the community.
L. Recognize the societal and environmental impacts, locally and globally, of engineered projects.
M. Recognize the need for continuous improvement through continuing education, including further degrees, in a rapidly changing technological world.
N. Gain respect for diversity and a knowledge of contemporary professional, societal and global issues.

Contact(s): George Cox, Program Coordinator, (865) 694-6504, gcox@pstcc.edu

Civil Engineering Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

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<tr>
<td>CET 1010</td>
<td>Construction Methods</td>
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<td>CHEM 1110</td>
<td>General Chemistry I</td>
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<td>MATH 1730</td>
<td>Precalculus</td>
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<td>CET 1022</td>
<td>Construction Materials W/Lab</td>
<td>......................................4</td>
<td></td>
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<tr>
<td>CET 1212</td>
<td>Surveying Principles W/Lab</td>
<td>......................................4</td>
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<tr>
<td>MATH 1530</td>
<td>Elementary Probability &amp; Statistics</td>
<td>......................................3</td>
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<table>
<thead>
<tr>
<th>Semester III (Fall)</th>
<th>Course Code</th>
<th>Course Title</th>
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<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
<td>.....................................3</td>
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<tr>
<td>PHYS 2010</td>
<td>Noncalculus Based Physics I</td>
<td>.....................................4</td>
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</tr>
<tr>
<td>SBS *</td>
<td>Social/Behavioral Sciences Elective</td>
<td>.................................3-4</td>
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<table>
<thead>
<tr>
<th>Semester IV (Spring)</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 1210</td>
<td>Architectural Drawing W/Lab</td>
<td>.....................................3-4</td>
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</tr>
<tr>
<td>or CET 2155</td>
<td>Advanced AutoCAD I W/Lab</td>
<td>.....................................3-4</td>
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</tr>
<tr>
<td>CET 2021</td>
<td>Project Scheduling W/Lab</td>
<td>.....................................3</td>
<td></td>
</tr>
<tr>
<td>CET 2220</td>
<td>Site Planning &amp; Development W/Lab</td>
<td>...................................3</td>
<td></td>
</tr>
<tr>
<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
<td>.....................................3</td>
<td></td>
</tr>
<tr>
<td>PHYS 2010</td>
<td>Noncalculus Based Physics I</td>
<td>.....................................4</td>
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</tr>
<tr>
<td>SBS *</td>
<td>Social/Behavioral Sciences Elective</td>
<td>.................................3-4</td>
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</tr>
</tbody>
</table>

Total Credit Hours Needed for Graduation: 64

* See the General Education section of this Catalog for electives.
CAREER/TECHNICAL PROGRAMS

COMMUNICATION GRAPHICS TECHNOLOGY
(SEE MEDIA TECHNOLOGIES)

COMPUTER ACCOUNTING

Accreditation. Accredited by the Association of Collegiate Business Schools and Programs.

Program description. The Computer Accounting program offers a core curriculum that provides the academic and technical background for individuals who wish to prepare for entry-level accounting positions in business and industry using both accounting and personal computer skills.

The curriculum is designed to enable the graduate to apply principles of accounting to business situations and to understand other functions of business: marketing, management, finance and information processing.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:
- Accounts Payable Technician
- Accounts Receivable Technician
- Payroll Technician
- Financial Institution Technician

After successfully completing the Computer Accounting program, the graduate will be equipped to do the following:

I. Understand the basic principles of financial accounting, managerial and cost accounting, and taxation and apply them to the accounting field.
II. Integrate computer accounting with other areas in the business environment.
III. Identify problems and use appropriate techniques to find solutions.
IV. Work independently with a network of individuals and also function within a work team.
V. Demonstrate business skills including competencies in mathematics, written and oral communications and a variety of computer applications, including word processing, spreadsheets, accounting software and tax preparation software.
VI. Function competently as a citizen and consumer.
VII. Develop knowledge/skills as needed in the computer accounting field.
VIII. Qualify for entry-level positions in accounting.

Contact(s): Deanne Pannell, dpannell@pstcc.edu; Ann Snodgrass, asnodgrass@pstcc.edu; Rick Oster, roster@pstcc.edu; Mark Fuentes, mhfuentes@pstcc.edu; Business and Computer Technology, (865) 694-6656
**Computer Accounting—Courses and Course Sequence**

**Special note:** All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2000</td>
<td>Principles of Accounting I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 1530</td>
<td>Elementary Probability &amp; Statistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 2200</td>
<td>Principles of Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OST 1211</td>
<td>Word/Excel/PowerPoint</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Semester II (Spring)</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 2030</td>
<td>Principles of Accounting II</td>
<td>3</td>
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</tr>
<tr>
<td>ACC 2410</td>
<td>Income Taxation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECN 2010</td>
<td>Principles of Economics</td>
<td>4</td>
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</tr>
<tr>
<td>OST 2621</td>
<td>Excel</td>
<td>3</td>
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<tr>
<td>SPH 2100</td>
<td>Public Speaking</td>
<td>3</td>
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<table>
<thead>
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<th>Semester III (Fall)</th>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>ACC 2215</td>
<td>Intermediate Accounting I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 2360</td>
<td>Cost Accounting</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 2500</td>
<td>Special Topics in Accounting</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
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</tr>
<tr>
<td>MGT 2000</td>
<td>Principles of Management</td>
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<table>
<thead>
<tr>
<th>Semester IV (Spring)</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2220</td>
<td>Intermediate Accounting II</td>
<td>3</td>
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<tr>
<td>ACC 2530</td>
<td>Accounting Systems</td>
<td>3</td>
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<tr>
<td>ACC 2571</td>
<td>Computer Accounting Internship</td>
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<td>FIN 2000</td>
<td>Financial Management</td>
<td>3</td>
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<tr>
<td>MGT 2240</td>
<td>Business Capstone</td>
<td>3</td>
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</tbody>
</table>

**Total Credit Hours Needed for Graduation:** 61

* See the General Education section of this Catalog for electives.
Accreditation. Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

Program description. The goals of the CIDD program are to teach basic drafting standards, integration of 3D modeling with the design/manufacturing process and integration of modeling, imaging and animation as a communication and design tool.

Students are taught drafting skills and standards with traditional drafting tools and software used by industry such as AutoCAD and Microstation. Students are also taught the use of 3D modeling software to construct models of parts or assemblies. Students are taught how electronic models speed production by allowing digital testing, downloading to a machining center, and verifying designs. Modeling, imaging, and animation software is taught as a communication and design tool by generating images and animation for design review, marketing and client reviews.

The CIDD program offers an institutional certificate with four different options that students may earn in addition to the associate’s degree. The options include Architectural, AutoCAD, Mechanical and Microstation.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:
Computer Drafting Technician

Educational objectives. After successfully completing the Computer Integrated Drafting and Design Technology program, the graduate will be qualified to accomplish the following objectives related to computer integrated drafting and design:

I. Understand and apply industry standards, principles and practices for engineering graphics required for manufacturing and construction.
II. Demonstrate proficiency with industry-standard commercial computer graphic applications used in visual representation and communication of graphic information.
III. Apply basic engineering methods and technology to analyzing and solving technical problems.
IV. Use software applications, references and other resources used by industry.
V. Be knowledgeable of office procedures, ethical concerns and professional communication issues of written/verbal/graphic information.
VI. Undertake endeavors using skills and knowledge, which will contribute to personal growth, professional development, community improvement and attaining goals.
Program outcomes. Upon completion of the Computer Integrated Drafting and Design Technology program, the student will have demonstrated the ability to

A. Know the techniques, skills, methods, equipment, resources and modern applications of the contemporary engineering graphics industry.
B. Apply current knowledge and adapt to emerging applications within the areas of engineering technology, mathematics and science.
C. Conduct, analyze and interpret experiments and apply results to improve procedures.
D. Use knowledge and applications creatively in the implementation of procedures or methods applied to current industry practices.
E. Contribute as a team member.
F. Identify, analyze and solve technical problems appropriate to program objectives.
G. Communicate effectively in verbal, written and graphic formats using the technology tools contemporary with industry usage.
H. Recognize the need to maintain current skills and knowledge.
I. Understand professional, ethical and social responsibilities.
J. Acknowledge the diversity of knowledge, skills and cultures in the workplace.
K. Understand the need for quality, timeliness and continuous improvement.

Contact(s): Bill Davis, Program Coordinator, (865) 694-6501, bdavis@pstcc.edu

Computer Integrated Drafting and Design Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)  
CID 1100  Fundamentals of Technical Drawing W/Lab...3  
CID 1105  Engineering Drawing W/Lab.......................4  
ENGL 1010  English Composition I...............................3  
MATH 1730  Precalculus...........................................5  

Semester II (Spring)  
CET/MET 1  Manufacturing Process Elective..................3-4  
CID 1110  Technical Illustration W/Lab.........................4  
CID 1210  Architectural Drawing W/Lab.........................4  
CID 1220  Advanced Mechanical Drawing W/Lab.............4  
MATH 1530  Elementary Probability & Statistics  
or MATH 1840  Technical Calculus..........................3  

Semester III (Fall)  
CHEM 1110  General Chemistry I  
or GEOL 1040  Physical Geology.................................4  
CID 2  CID Electives...........................................9  
MET 1040  Applied Statics.......................................3
Semester IV (Spring)  CID  .......................................................... 3  
CID 2301 CIDD Project/Internship ................................... 2  
HUM *  Humanities/Fine Arts Elective ....................... 3  
PHYS 2010 Noncalculus Based Physics I ...................... 4  
SBS *  Social/Behavioral Sciences Elective .......... 3-4  

Total Credit Hours Needed for Graduation: 64

CET/MET  1  Manufacturing process elective to be chosen from CET 1010, 1022; MET 1012, 1020.
CID  2  CID electives to be chosen from CID 2004, 2115, 2155, 2175, 2195, 2235, 2255, 2900; COP 1914.

* See the General Education section of this Catalog for electives.

**COMPUTER SCIENCE AND INFORMATION TECHNOLOGY**


**Program description.** The student who pursues Computer Science and Information Technology studies and gains experience with a variety of systems, applications, languages, and products. Graduates of any of the three concentrations will benefit from sustained growth in demand for highly skilled information technology workers. The concentrations allow for maximum flexibility within the curriculum while ensuring the student has adequate credentials in a particular segment of the information technology field. In addition, all Computer Science and Information Technology students complement their studies with a 135-hour internship at a selected site, which allows students to gain on-the-job experience prior to graduation.

**Computer Support concentration.** The Computer Support concentration equips students for successful employment in a computer support-intensive environment. Areas of emphasis include application development, information support services and desktop system administration.

**Database Design and Development concentration.** The Database Design and Development concentration equips students for successful employment in a database-intensive environment. Areas of emphasis include database design, Oracle applications and database management.

**Internet Software Development concentration.** The Internet Software Development concentration equips students for successful employment in a commercial Web-based Internet environment. Areas of emphasis include Internet design, Internet hardware/software products and Internet development.

**Programming concentration.** The Programming concentration equips students for employment in a programming-intensive environment. Areas of emphasis include programming languages such as Visual Basic, Java, Object-Oriented C++, Delphi and Perl.

**Degree:** Associate of Applied Science (A.A.S.)
Typical job opportunities:
Applications Programmer
Systems Representative
Product Representative
Maintenance Programmer
Programmer Specialist
Database Programmer
Programmer/Analyst
Research Assistant
Software Developer
Applications Specialist
Computer Support Specialist

After successfully completing the Computer Science and Information Technology program, the graduate will be equipped to do the following:

I. Express ideas and facts in written and verbal communications and work independently or as a team member.

II. Effectively operate and use computers, peripherals and related equipment.

III. Understand terminology, numeric concepts, social/ethical implications and/or system concepts associated with the information technology field.

IV. Understand and use applications software, operating systems and/or system-based products.

V. Analyze problems, develop algorithms and implement solutions.

VI. Effectively use computer languages, compilers, interpreters and assembler products to produce code and output which meet specified requirements.

VII. Understand system and software development cycles and use tools to develop and manage the cycles.

VIII. Upgrade and develop skills which represent real-world training standards as established by national tests, state standards, institutional goals and advisory recommendations.

IX. Use equipment and resources which are up-to-date, real-world and which represent current trends in the employment field.

X. Develop a positive attitude towards standards, rules, expectations, work and learning.

XI. Develop specific skills, understanding and knowledge which can be used at articulated institutions and which can be applied to higher levels of learning.

XII. Enhance creative and artistic talents appropriate to the computer science field.

Contact(s): Greg Walters, Program Coordinator, (865) 694-6656, gwalters@pstcc.edu
Computer Science and Information Technology/Computer Support Concentration—
Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Courses</th>
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<tbody>
<tr>
<td>CSIT 1110</td>
<td>Introduction to Information Technology</td>
</tr>
<tr>
<td>CSIT 1200</td>
<td>Application Development Using Visual Basic</td>
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<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
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<tr>
<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
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<tr>
<td>MATH 1530</td>
<td>Elementary Probability &amp; Statistics</td>
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**Semester II (Spring)**

<table>
<thead>
<tr>
<th>Courses</th>
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<tbody>
<tr>
<td>CSIT 1810 Introduction to Database Design</td>
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<tr>
<td>MKT 2420 Customer Service</td>
</tr>
<tr>
<td>NETW 1020 PC Operating System Software (A+ Certification)</td>
</tr>
<tr>
<td>OST 2801 Web Design I—HTML Coding</td>
</tr>
<tr>
<td>OST 2802 Web Design I—Graphics</td>
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<tr>
<td>OST 2803 Web Design I—Site Building</td>
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**Semester III (Fall)**

<table>
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<th>Courses</th>
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<tr>
<td>CSIT 2100 Information Support Services</td>
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<tr>
<td>CSIT 2480 Desktop System Administration</td>
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<tr>
<td>CSIT Elective</td>
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<tr>
<td>SPH 2100 Public Speaking</td>
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**Semester IV (Spring)**

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<tr>
<th>Courses</th>
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<tbody>
<tr>
<td>CSIT Elective</td>
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<tr>
<td>CSIT 2911 CSIT Internship</td>
</tr>
<tr>
<td>ECN 2010 Principles of Economics</td>
</tr>
<tr>
<td>ELEC Guided Elective</td>
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</table>

Total Credit Hours Needed for Graduation: 60

CSIT electives to be chosen from CSIT 2410, 2425, 2460, 2465, 2490, 2610, 2630, 2645, 2655, 2665, 2690.

ELEC Guided elective to be chosen from any CGT, EET, GIS, HPC, MGT, NETW, VPT or WEB or OST 2621.

* See the General Education section of this Catalog for electives.

Computer Science and Information Technology/Database Design and Development Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIT 1110</td>
<td>Introduction to Information Technology</td>
</tr>
<tr>
<td>CSIT 1510</td>
<td>Introduction to Programming Using Java</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
</tr>
<tr>
<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
</tr>
<tr>
<td>SPH 2100</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>
Semester II (Spring)
CSIT 1410 Machine Organization.........................4
CSIT 1520 Advanced Java Programming....................4
CSIT 1810 Introduction to Database Design...............4
MATH 1530 Elementary Probability & Statistics........3

Semester III (Fall)
BA 1 Business Administration Electives.................6
CSIT 2425 SQL Applications Using Oracle................4
CSIT 2445 Oracle Application Development
or CSIT 2465 Object Oriented Database Application Development.........................4

Semester IV (Spring)
CSIT 2550 Advanced Database Management Systems.......4
CSIT 2810 Systems Analysis & Design........................4
CSIT 2911 CSIT Internship....................................3
ECN 2010 Principles of Economics...........................4

Total Credit Hours Needed for Graduation: 61

* See the General Education section of this Catalog for electives.

Computer Science and Information Technology/Internet Software Development
Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)
CSIT 1110 Introduction to Information Technology........4
CSIT 1510 Introduction to Programming Using Java........4
ENGL 1010 English Composition I........................3
HUM * Humanities/Fine Arts Elective.......................3
SPH 2100 Public Speaking..................................3

Semester II (Spring)
CSIT 1410 Machine Organization..........................4
CSIT 1520 Advanced Java Programming....................4
CSIT 1810 Introduction to Database Design...............4
MATH 1530 Elementary Probability & Statistics........3

Semester III (Fall)
BA 1 Business Administration Electives...............6
CSIT 2 Programming Elective............................4
CSIT 2645 Introduction to Internet/Software Development................................4
Semester IV (Spring)

- CSIT 2810 Systems Analysis & Design .................. 4
- CSIT 2880 Server-Side Internet Development .......... 4
- CSIT 2911 CSIT Internship .................................. 3
- ECN 2010 Principles of Economics ..................... 4

Total Credit Hours Needed for Graduation: 61

BA 1  Business administration electives to be chosen from any ACC, FIN, MGT, MKT or OST 2801, 2802, 2803.

CSIT 2  CSIT programming elective to be chosen from CSIT 2610, 2630, 2645, 2655, 2665, 2690, 2695.

* See the General Education section of this Catalog for electives.

Computer Science and Information Technology/
Programming Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

- CSIT 1110 Introduction to Information Technology .... 4
- CSIT 1510 Introduction to Programming Using Java ..... 4
- ENGL 1010 English Composition I ...................... 3
- HUM * Humanities/Fine Arts Elective .................... 3
- SPH 2100 Public Speaking .................................. 3

Semester II (Spring)

- CSIT 1410 Machine Organization .......................... 4
- CSIT 1520 Advanced Java Programming ............... 4
- CSIT 1810 Introduction to Database Design .......... 4
- MATH 1530 Elementary Probability & Statistics ...... 3

Semester III (Fall)

- BA 1  Business Administration Elective ............... 3
- CSIT 2  CSIT Application Elective ....................... 4
- CSIT 3  CSIT Programming Electives .................... 8

Semester IV (Spring)

- BA 1  Business Administration Elective ............... 3
- CSIT 2810 Systems Analysis & Design .................. 4
- CSIT 2911 CSIT Internship .................................. 3
- ECN 2010 Principles of Economics ..................... 4

Total Credit Hours Needed for Graduation: 61

BA 1  Business administration electives to be chosen from any ACC, FIN, MGT, MKT or OST 2801, 2802, 2803.

CSIT 2  CSIT application elective to be chosen from CSIT 2410, 2412, 2425, 2460, 2465, 2477, 2490.

CSIT 3  CSIT programming electives to be chosen from CSIT 2610, 2630, 2645, 2655, 2665, 2690, 2695.

* See the General Education section of this Catalog for electives.
CRIMINAL JUSTICE

Program description. Through a cooperative arrangement between Pellissippi State Technical Community College and Walters State Community College in support of the criminal justice and fire protection students of Knox and Blount counties, students in these programs may complete their Associate of Applied Science degree in Criminal Justice by taking courses in their major at Walters State teaching sites and their general education at any Pellissippi State teaching site. The general education coursework can be transferred to Walters State to complete requirements for the Associate of Applied Science degree.

E-COMMERCE/MARKETING

Accreditation. Accredited by the Association of Collegiate Business Schools and Programs.

Program description: The E-Commerce/Marketing curriculum is designed to provide the skills graduates need to enter careers in marketing, customer service and small business management. Coursework focuses on basic marketing principles, including intense work in promotion, e-commerce, customer service, event marketing and sales. Basic understanding of theory and principle is essential, but the program’s emphasis is on practical applications. Courses incorporate realistic projects, case analyses, simulations, presentations, teamwork and internship opportunities.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:
- Advertising Media Sales Representative
- Customer Service Representative
- Director of Marketing
- E-Commerce Coordinator
- Industrial Sales Representative
- Marketing Coordinator
- Small Business Owner/Manager

After successfully completing the E-Commerce/Marketing program, the graduate will

I. Understand the basic principles of e-commerce/marketing and apply them.
II. Integrate E-commerce/marketing with other disciplines in business.
III. Identify problems and use appropriate techniques to find solutions.
IV. Work independently and function on a team.
V. Demonstrate basic math, verbal and written communications and computer skills.
VI. Qualify for entry-level positions in the e-commerce/marketing field.

Contact(s): Anne Swartzlander, aswartzlander@pstcc.edu; Lisa Bogaty, lbogaty@pstcc.edu; Business and Computer Technology, (865) 694-6656
**E-Commerce/Marketing—Courses and Course Sequence**

Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
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<tr>
<td>MGT 2000</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>MKT 2200</td>
<td>Principles of Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 2420</td>
<td>Customer Service</td>
<td>3</td>
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</tr>
<tr>
<td>OST 1211</td>
<td>Word/Excel/PowerPoint</td>
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<tr>
<th>Semester II (Spring)</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 2000</td>
<td>Principles of Accounting I</td>
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</tr>
<tr>
<td>MKT 2350</td>
<td>Customer Behavior</td>
<td>3</td>
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<td>OST 1007</td>
<td>Access I CBT</td>
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<td>Web Page Design I—HTML Coding</td>
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<td>Web Page Design II—Graphics</td>
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<td>OST 2803</td>
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<td>SPH 2100</td>
<td>Public Speaking</td>
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<th>Semester III (Fall)</th>
<th>Course</th>
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<tbody>
<tr>
<td>ADV 2500</td>
<td>Advertising &amp; Promotion</td>
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<tr>
<td>ECN 2010</td>
<td>Principles of Economics</td>
<td>4</td>
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<tr>
<td>MATH 1530</td>
<td>Elementary Probability &amp; Statistics</td>
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<td>MKT 2260</td>
<td>Marketing Information</td>
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<td>MKT 2450</td>
<td>E-Commerce</td>
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<tr>
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<td>Humanities/Fine Arts Elective</td>
<td>3</td>
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<tr>
<td>MGT 2240</td>
<td>Business Capstone</td>
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<tr>
<td>MKT 2471</td>
<td>E-Commerce/Marketing Internship</td>
<td>3</td>
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<tr>
<td>MKT 2570</td>
<td>Sales/Event Marketing</td>
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</tr>
</tbody>
</table>

**Total Credit Hours Needed for Graduation:** 60

* See the General Education section of this Catalog for electives.
EARLY CHILDHOOD EDUCATION

Program description. The primary purpose of this program is to prepare students to enter the workforce in the field of early childhood education with the credential of being “highly qualified” as determined by the No Child Left Behind Act. The program includes theoretical and practical elements and features supervised classroom teaching to prepare early childhood education professionals to work effectively with children age birth to 9. The program continues to serve the educational needs stipulated by federal law for Tennessee’s Head Start teachers. The 1999 Federal Reauthorization Act for Head Start mandated that by 2003, at least 50 percent of all Head Start teachers have earned an associate’s or higher degree in Early Childhood Education. Further, the U.S. Department of Labor has stated that openings for preschool teachers and child-care workers will increase faster than the average for all occupations through the year 2008. Men or women who obtain an associate’s degree are considered “highly qualified” by federal standards and have a greater advantage when seeking employment opportunities.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:

- Head Start Teacher or Assistant Teacher
- Child-Care Center Teacher or Assistant Teacher
- Child-Care Center Administrator
- Kindergarten or Elementary School Assistant
- Family Child-Care Center Teacher

After successfully completing the Early Childhood Education program, the graduate will be equipped to do the following:

I. Be prepared for job entry or career advancement in the child care field.
II. Use good verbal and written communication skills.
III. Demonstrate understanding of fundamental child development principles.
IV. Apply on-the-job the principles of good work habits.

Contact(s): Shari Lillestolen, (865) 539-7229, srlillestolen@pstcc.edu

Early Childhood Education—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECEd 1010</td>
<td>Orientation to Early Childhood Education</td>
<td>2</td>
</tr>
<tr>
<td>ECEd 2130</td>
<td>Clinical Practicum I</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH *</td>
<td>Mathematics Elective</td>
<td>3-5</td>
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Semester II (Spring)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECEd 2010</td>
<td>Safe, Healthy Learning Environments</td>
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<tr>
<td>ECEd 2020</td>
<td>Infant, Toddler, Child Development</td>
<td>3</td>
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<tr>
<td>Semester III (Fall)</td>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
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<tr>
<td>ECEd 2040</td>
<td>Family Dynamics &amp; Community Involvement</td>
<td>3</td>
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<tr>
<td>ECEd 2060</td>
<td>Development of Exceptional Children</td>
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<tr>
<td>ECEd 2085</td>
<td>Math &amp; Science in Early Childhood</td>
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<td>ECEd 2095</td>
<td>Language &amp; Literacy Development in Early Childhood</td>
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<tr>
<td>ECEd 2140</td>
<td>Clinical Practicum II</td>
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<table>
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<th>Semester IV (Spring)</th>
<th>Course Code</th>
<th>Course Title</th>
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<td>ECEd 2070</td>
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<td>ECEd 2150</td>
<td>Clinical Practicum III</td>
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<tr>
<td>ECEd 1</td>
<td>ECEd Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
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</tr>
<tr>
<td>OST 1005</td>
<td>Word</td>
<td>3</td>
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<tr>
<td>or OST 1211</td>
<td>Word/Excel/PowerPoint</td>
<td>3</td>
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<tr>
<td>SBS *</td>
<td>Social/Behavioral Sciences Elective</td>
<td>3-4</td>
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</table>

**Total Credit Hours Needed for Graduation:** 60

ECEd electives to be chosen from ECEd 2030, 2050, 2080, 2090, 2100, 2110, 2120.

* See General Education section of this Catalog for electives.

**ELECTRICAL ENGINEERING TECHNOLOGY**

**Accreditation.** Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

**Program description.** The Electrical Engineering Technology program is designed to train individuals to function effectively as assistants to electrical engineers or independently as electrical/electronics technicians. The program prepares electrical engineering technicians to translate the engineer’s designs into systems and projects, collect and analyze data, develop design layouts, inspect work, check and repair equipment and prepare reports for the engineering team. Electrical engineering technicians acquire a general education background, including mathematics and science, while studying electricity and electronics and associated technical applications. Upon completion of this program, the student will receive an Associate of Applied Science (A.A.S.) in Electrical Engineering Technology. If a baccalaureate degree in Engineering Technology is desired, an appropriate advisor can advise a student of colleges and universities that offer further education in engineering technology.

**Degree:** Associate of Applied Science (A.A.S.)

**Typical job opportunities:**
- Associate Engineering Technician
- Communications Technician
- Computer Technician
Electronics Technician
Industrial Electronics Technician
Instrument Technician
Manufacturing Technician
Plant Technician
Service Technician
Systems Application Technician

Educational objectives. After successfully completing the Electrical Engineering Technology program, the graduate will be qualified to accomplish the following objectives related to electrical engineering technology:

I. Function as a technically qualified electrical and electronic technician, capable of working with manufacturing, electrical, electronic, instrumentation and computer systems.

II. Demonstrate critical thinking skills by applying the basic principles of electrical engineering technology to solve technical problems with minimum assistance or supervision.

III. Effectively communicate using reading, writing and speaking skills in interpersonal and group environments.

IV. Function in a team environment by contributing and respecting the ideas and attitudes of others and demonstrate the ability to provide leadership to a technical team.

V. Demonstrate an understanding of ethical and professional conduct by applying good work habits.

VI. Continue to participate in lifelong learning and maintain an awareness of global issues in technology.

Program outcomes. Upon completion of the Electrical Engineering Technology program, the student will have demonstrated the ability to

A. Analyze and solve complex electrical and electronic circuit problems.

B. Use electrical and electronic measuring tools to acquire and interpret data to solve problems.

C. Program microprocessor-based systems, such as microcontrollers and programmable logic controllers, as applied to manufacturing, electrical, electronic, instrumentation or computer systems.

D. Apply creative ideas in solving electrical and electronic problems related to manufacturing, electrical, electronic, instrumentation and computer systems.

E. Apply current knowledge in math and science to adapt to new applications used in manufacturing, electrical, electronic, instrumentation and computer systems.

F. Work in a team environment.

G. Develop and interpret visual information, produce written documents, deliver oral presentations and communicate with an audience.

H. Continue education beyond the associate’s level by having an awareness of the need to engage in lifelong learning.

I. Understand and apply professional ethics to professional settings and relate to colleagues with respect.

J. Develop an awareness of diversity and professional, societal, and global issues.
K. Develop a commitment to produce quality work in a timely manner and an awareness of the need for continually improving technical skills and professional conduct.

Contact(s): Kenneth Swayne, Program Coordinator, (865) 694-6496, keswayne@pstcc.edu

**Electrical Engineering Technology—Courses and Course Sequence**

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

**Semester I (Fall)**
- EET 1001 Introduction to EET ............................... 1
- EET 1012 Electrical Circuits I W/Lab ....................... 3
- EET 1310 Digital Fundamentals W/Lab ..................... 4
- ENGL 1010 English Composition I .......................... 3
- MATH 1730 Precalculus ........................................ 5

**Semester II (Spring)**
- EET 1022 Electrical Circuits II W/Lab.................. 5
- EET 1210 Active Devices I W/Lab ......................... 4
- EET 2310 Microprocessors I W/Lab ....................... 4
- MATH 1840 Technical Calculus ................................ 3

**Semester III (Fall)**
- CSIT 1050 Programming for Engineering Transfer ...... 1
- EET 2220 Active Devices II W/Lab ....................... 4
- EET 1 EET Electives ........................................... 6
- PHYS 2010 Noncalculus Based Physics I ................. 4
- SPH 2100 Public Speaking ................................... 3

**Semester IV (Spring)**
- CHEM 1110 General Chemistry I ........................... 4
- EET 2601 Major Projects ..................................... 2
- EET 1 EET Elective .......................................... 2
- PHIL 1030 Introduction to Philosophy
  or PHIL 2400 Introduction to Ethics ..................... 3
- SOC 1010 Introduction to Sociology
  or SOC 1020 Social Problems & Social Change .......... 3

**Total Credit Hours Needed for Graduation:** 64

EET 1 Electrical Engineering Technology electives to be chosen from EET 2715, 2900, 2910, 2920 or as approved by an EET advisor.
GENERAL TECHNOLOGY

Program description. The General Technology degree program is designed to allow the student maximum flexibility in designing an educational program that meets specific career-related objectives. Goals of the program are to provide a strong foundation in general education, including problem-solving skills, computer-utilization and functioning as a productive member of society, while giving the student the opportunity to select those courses most closely aligned to his/her personal career goals.

Designed as a cross-disciplinary program, the General Technology degree allows the student to combine engineering technology, business technology or computer technology programs to meet individualized career goals. The student will meet with an assigned advisor to develop an individualized sequence of courses.

Certificate of credit articulation. Successful completion of technical or institutional certificates of credit from Pellissippi State may apply for credit toward a General Technology degree. Programs that articulate include Local Area Network Operations/Management, Banking, Credit Union Management, Photography, Real Estate, Supervision and Surveying certificates.

Articulation from Tennessee Technology Centers to Pellissippi State. A student who has completed a diploma program at a Tennessee Technology Center (TTC) will receive credit toward the General Technology major by meeting the following requirements: (1) The student must meet all regular admission requirements. (2) The student must provide an official transcript from the TTC. (3) The student must meet all applicable requirements of the Developmental Studies Program as indicated by the appropriate placement test. (4) The student is required to complete general education requirements. (5) The student must complete 15 hours of college-level work in the appropriate concentration or in general education before being awarded credit for prior learning at the TTC.

Upon fulfillment of the requirements stated above, the student will receive 30 semester hours credit toward the Associate of Applied Science (A.A.S.) degree, General Technology major. Credit previously awarded for a diploma from a TTC will be posted on the transcript but will not count in the calculation of the student’s grade point average.

Alcoa articulation. Students who have completed the appropriate portions of the ALCOA Electrical Apprenticeship Program may receive up to 25 semester hours of credit toward an A.A.S. in General Technology. The courses in the apprenticeship program that can be used for articulation are as follows: Construction Practices, Basic Computers, Basic Electricity, AC Principles, Basic Electronics, Analog Electronics, Digital Electronics, Microprocessors, PLC, Process Control, Process Troubleshooting, Math, Blueprints and Schematics.
Lockheed Martin Energy Systems (LMES) articulation. Students who complete ALL of the LMES Fabrication Division training programs in Basic CNC Programming will receive 25 semester hours credit toward the general technology degree. Courses that must be completed are: GE 2000 introduction level programming, advanced-level programming and supervisors’ training; maintenance procedures for the GE 2000 CNC, turret and shifter assembly; geometric alignment and repair; bearings (installation and maintenance); basic electronics (NC and CNC); fundamentals of scraping; laser measurement; and a minimum of two safety courses.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities, position titles and competencies gained will vary by program.

Contact(s): Certificate of Credit Articulation: Mike Hudson, (865) 694-6416, mhudson@pstcc.edu; TTCK Articulation: Cynthia Atchley, (865) 539-7174, catchley@pstcc.edu; LMES Articulation: Terry Sisk, (865) 694-6513, tsisk@pstcc.edu; General Information: Margaret Ann Jeffries, (865) 539-7084, mjeffries@pstcc.edu

General Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. Specific course sequences and elective choices will vary depending on the student’s educational goals. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BA 1</td>
<td>Business Administration Elective ..................3</td>
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<td>COMP 2</td>
<td>Introductory Computer Course ......................3-4</td>
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<tr>
<td>ENGL 1010</td>
<td>English Composition I................................3</td>
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<tr>
<td>MAJOR</td>
<td>Major Technology Electives ............................6</td>
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Semester II (Spring)

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<th>Course</th>
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<tr>
<td>ENGL 2950</td>
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<td>MAJOR</td>
<td>Major Technology Electives ............................6</td>
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<tr>
<td>MATH/NS*</td>
<td>Mathematics/Natural Sciences Elective.............3-5</td>
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<td>SBS*</td>
<td>Social/Behavioral Sciences Elective................3-4</td>
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Semester III (Fall)

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<tr>
<th>Course</th>
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<tbody>
<tr>
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<tr>
<td>HUM*</td>
<td>Humanities/Fine Arts Elective ......................3</td>
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<tr>
<td>MAJOR</td>
<td>Major Technology Electives ............................6</td>
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<tr>
<td>SPH 2100</td>
<td>Public Speaking...........................................3</td>
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Semester IV (Spring)

<table>
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<tr>
<th>Course</th>
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<tbody>
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</tr>
<tr>
<td>MAJOR</td>
<td>Major Technology Electives ............................12</td>
</tr>
</tbody>
</table>

Total Credit Hours Needed for Graduation: 60

BA 1 Business administration elective to be chosen from any ACC, ADV, FIN, MGT or MKT courses.

COMP 2 Introductory computer course to be chosen from CGT 1030, CID 1100, any CSIT, any OST (except OST 1100) or VPT 1030.

* See General Education section of this Catalog for electives.
Program description. The Geographic Information Technology program offers students opportunities to develop skills useful to engineering, business, science and industry. The technician that completes this program gains competence to work in a variety of applications in this growing field. Geographic Information Systems (GIS) are designed to assist engineering and business decision making by using data that is spatially referenced to the Earth. Modern computer software and related technology make it possible to use this spatial data to solve complex planning and management problems. Students learn to understand various kinds of spatial data, computer tools and data quality considerations that are important to effectively use this technology in making good decisions.

Business concentration: Provides a course of study for individuals who wish to work as specialists in business, emergency management, logistics, public safety, economic development, site selection and marketing.

Technology concentration: Provides a course of study for individuals who wish to work as specialists in engineering, surveying, land management, planning and facility management.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:
- Engineering and Surveying GIS Specialist
- Facility Management GIS Specialist
- Land Management GIS Specialist
- County and City Government GIS Specialist
- Site Selection GIS Specialist
- Logistics GIS Specialist
- Demographic GIS Specialist
- Public Safety GIS Specialist
- Community Planner
- Economic Development GIS Specialist

After successfully completing the GIS program, the graduate will be equipped to do the following:

I. Demonstrate understanding of fundamental GIS principles.
II. Be prepared for job entry or career advancement in GIS related fields.
III. Use good verbal and written communication skills.
IV. Demonstrate problem-solving skills.

Contact(s): F. Paul Baxter, (865) 539-7133 or 694-6483, fpbaxter@pstcc.edu

Geographic Information Systems/Business Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

<table>
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<th>Semester I (Fall)</th>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CSIT 1110</td>
<td>Introduction to Information Technology</td>
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<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GIS 1010</td>
<td>Fundamentals of GIS</td>
<td>3</td>
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</tbody>
</table>
GIS 1120  Desktop GIS Software Tools ............................3
MKT 2200  Principles of Marketing .................................3

**Semester II (Spring)**

ECN 2010  Principles of Economics .................................4
ENGL 2950  Business & Technical Writing .........................3
GIS 1030  GIS Data Sources & Quality .............................3
GIS 1600  Business Geographics ..............................3
MATH *  Mathematics Elective ..............................3-5

**Semester III (Fall)**

ELEC 1  Guided Elective .................................................4
GIS 1110  Intro to GIS Database Management ........................3
GIS 2410  GIS Web Applications .................................3
SPH 2100  Public Speaking .........................................3

**Semester IV (Spring)**

ELEC 1  Guided Elective .................................................3
GIS 2030  Planning & Executing Projects ..........................3
GIS 2600  Location Based Services ................................3
HUM *  Humanities/Fine Arts Elective ..............................3
SBS *  Social/Behavioral Sciences Elective .........................3-4

**Total Credit Hours Needed for Graduation:** 60

ELEC 1  Guided electives to be chosen from any CSIT, GIS or WEB

courses not listed as a requirement.

* See the General Education section of this Catalog for electives.

**Geographic Information Systems/Technology Concentration—
Courses and Course Sequence**

This sequence can be followed by students who begin college-level work in the fall

semester. Prerequisites may apply to specific courses; it is the student’s responsibility
to determine if prerequisites have been met. An academic advisor is provided for each

student. Prior to registering each semester, the student is expected to consult with his/
her assigned advisor.

**Semester I (Fall)**

CSIT 1110  Introduction to Information Technology ...........4
ENGL 1010  English Composition I .................................3
GIS 1010  Fundamentals of GIS .....................................3
GIS 1120  Desktop GIS Software Tools ............................3
MATH *  Mathematics Elective ..............................3-5

**Semester II (Spring)**

CSIT 1810  Introduction to Database Design .......................4
ENGL 2950  Business & Technical Writing .........................3
GIS 1020  Digital Images & Base Maps ............................3
GIS 1030  GIS Data Sources & Quality .............................3
GIS 1200  Global Positioning Technology ........................3

**Semester III (Fall)**

ELEC 1  Guided Elective .................................................4
GIS 1110  Intro to GIS Database Management .....................3
GIS 2410  GIS Web Applications .................................3
SPH 2100  Public Speaking .........................................3
Semester IV (Spring)  

**ELEC 1 Guided Elective** .................................................. 3  
GIS 2030 Planning & Executing Projects ......................... 3  
GIS 2120 Image & Raster GIS Analysis .............................. 3  
HUM * Humanities/Fine Arts Elective ................................. 3  
SBS * Social/Behavioral Sciences Elective .................. 3-4  

Total Credit Hours Needed for Graduation: 60

ELEC 1 Guided electives to be chosen from any CSIT, GIS or WEB courses not listed as a requirement.

* See the General Education section of this Catalog for electives.

**HIGH PERFORMANCE COMPUTING**

Program description. The High Performance Computing (HPC) program provides educational opportunities for future HPC field engineers in medicine, gaming, imaging, business and other areas. High performance computers such as PC clusters are a collection of interconnected computers working together as a single computing resource to accomplish tasks that otherwise would take long periods of time to complete. The goal of the HPC degree program is to cater to the emerging trends in advanced computing as well as the contemporary and futuristic human resource requirements of the information technology industry. The program offers courses suitable for a range of users from beginners to working professionals who wish to upgrade and enhance their knowledge.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:

- High Performance Computing Programming Assistant
- High Performance Computing Field Engineer
- Security Administration Technician

After successfully completing the HPC program, the graduate will be equipped to do the following:

I. Effectively operate and use computers, peripherals, and related equipment.
II. Be prepared for job entry or career advancement in HPC-related fields.
III. Use good verbal and written communication skills.
IV. Demonstrate problem-solving skills.

Contact(s): Michael Lusk, jmlusk@pstcc.edu, (865) 694-6483; F. Paul Baxter, fpbaxter@pstcc.edu, (865) 694-6483

High Performance Computing—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CSIT 2411</td>
<td>Linux System Administration .................. 4</td>
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<tr>
<td>ENGL 1010</td>
<td>English Composition I .......................... 3</td>
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<tr>
<td>HPC 1010</td>
<td>HPC Internetworking Security  .................. 4</td>
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<tr>
<td>HPC 2300</td>
<td>HPC Architecture &amp; System Administration ........... 4</td>
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Semester II (Spring)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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<td>HPC</td>
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<td>HPC Guided Electives</td>
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<td>HUM</td>
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<tr>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>MATH</td>
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<td>Mathematics Elective</td>
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Semester III (Fall)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>EET</td>
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<tr>
<td>Digital Fundamentals W/Lab</td>
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<td>HPC</td>
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<td>HPC Guided Electives</td>
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<tr>
<td>SBS</td>
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<tr>
<td>Social/Behavioral Sciences Elective</td>
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Semester IV (Spring)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>EET</td>
<td>2715</td>
</tr>
<tr>
<td>Microcomputer Architecture</td>
<td>4</td>
</tr>
<tr>
<td>HPC</td>
<td>2800</td>
</tr>
<tr>
<td>HPC Image Processing &amp; Analysis</td>
<td>3</td>
</tr>
<tr>
<td>HPC</td>
<td>2950</td>
</tr>
<tr>
<td>HPC Practicum</td>
<td>2</td>
</tr>
<tr>
<td>HPC</td>
<td>1</td>
</tr>
<tr>
<td>HPC Guided Elective</td>
<td>4</td>
</tr>
<tr>
<td>SPH</td>
<td>2100</td>
</tr>
<tr>
<td>Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours Needed for Graduation: 60

HPC 1

After completion of the first semester, students will choose one of three interest areas based on their career goals. The guided electives allow for maximum flexibility within the curriculum while assuring the student has adequate credentials in a particular segment of the HPC field. Any deviation from the programs of study listed below must be approved by the student’s advisor.

Students planning to pursue careers as HPC programming assistants need the following electives in the order listed:

- CSIT 1541 C++: An Introduction to Programming ............ 4
- HPC 2400 Introduction to Parallel Programming ........... 4
- HPC 2500 MPI Programming ..................................... 4
- HPC 2600 High Performance & Distributed Computing ... 4
- HPC 2700 HPC Data Mining...................................... 4

Students planning to pursue careers as HPC field engineers need the following electives in the order listed:

- CSIT/HPC CSIT/HPC Programming Elective or HPC 2900 ........................................ 4
- HPC 1020 HPC Internetworking & Grid Technology ...... 4
- HPC 2020 Advanced HPC Internetworking & Grid Technology .......... 4
- HPC 2400 Introduction to Parallel Programming ........ 4
- HPC 2000 or 2007 or 2010 (Security Elective) ............. 4

Students planning to pursue careers as security administration technicians need the following electives in the order listed:

- HPC 1020 HPC Internetworking & Grid Technology ...... 4
- HPC 2000 HPC Security Management ....................... 4
- HPC 2007 HPC Intrusion Detection & Countermeasures .................. 4
- HPC 2010 HPC Security Applications & Technology ...... 4
- HPC 2020 Advanced HPC Internetworking & Grid Technology ........ 4

* See the General Education section of this Catalog for electives.
HOSPITALITY

Program description. The Hospitality curriculum is designed to provide the skills and knowledge necessary for graduates to succeed in the hospitality management field. Practical applications of basic management theories and principles are stressed. Courses incorporate work-related experiences to simulate realistic management problems and opportunities. The curriculum also includes on-the-job experience as an intern. Organizations in the industry frequently promote from within, so the internship can be a significant asset.

The Hospitality program is directed toward three groups of students. The first group is composed of students who currently work or desire to work in the hospitality industry who want to develop their careers in management. The second group includes students involved in fields outside the hospitality industry who desire new careers more suited to their personal interests. Students in other associate’s degree programs who desire a double major or an introduction to hospitality to complement their current major comprise the third group.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:
- Associate Manager
- Small-Business Operator
- Assistant Manager
- Functional Assistant Manager

After successfully completing the Hospitality program, the graduate will be equipped to do the following:

I. Understand the basic principles of hospitality and apply them within the hospitality profession.
II. Integrate hospitality with other areas in the business environment.
III. Identify problems and use appropriate techniques to find solutions.
IV. Work independently with a network of individuals and also function within a work team.
V. Demonstrate basic collegiate skills that include competencies in mathematics, computer applications and communications.
VI. Comprehend the relationship of the hospitality industry with the role of the consumer.
VII. Continue developing skills as needed in the hospitality field.
VIII. Qualify for entry-level management positions in the hospitality industry.

Contact(s): Tom Gaddis, Program Coordinator, (865) 971-5246, tfgaddis@pstcc.edu
Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
<td>3</td>
<td></td>
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<tr>
<td>HSP 1200</td>
<td>Intro to Hospitality I</td>
<td>3</td>
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</tr>
<tr>
<td>MKT 2200</td>
<td>Principles of Marketing</td>
<td>3</td>
<td></td>
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<tr>
<td>OST 1211</td>
<td>Word/Excel/PowerPoint</td>
<td>3</td>
<td></td>
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<tr>
<td>SPH 2100</td>
<td>Public Speaking</td>
<td>3</td>
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<table>
<thead>
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<th>Semester II (Spring)</th>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HSP 2200</td>
<td>Intro to Hospitality II</td>
<td>3</td>
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<tr>
<td>HSP 2260</td>
<td>Hotel Operations</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 1530</td>
<td>Elementary Probability &amp; Statistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGT 2030</td>
<td>Team Leadership</td>
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<thead>
<tr>
<th>Semester III (Fall)</th>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ACC 2000</td>
<td>Principles of Accounting I</td>
<td>3</td>
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<td>HSP 2000</td>
<td>Purchasing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HSP 2210</td>
<td>Travel/Tourism Administration</td>
<td>3</td>
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<tr>
<td>HSP 2300</td>
<td>Food &amp; Beverage Operation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGT 2050</td>
<td>Human Resources</td>
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<thead>
<tr>
<th>Semester IV (Spring)</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ECN 2010</td>
<td>Principles of Economics</td>
<td>4</td>
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<tr>
<td>HSP 1</td>
<td>Hospitality Elective</td>
<td>3</td>
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<tr>
<td>HSP 2050</td>
<td>Cost Control</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HSP 2320</td>
<td>Quantity Food Production</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HSP 2950</td>
<td>Hospitality Internship</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours Needed for Graduation: 61

Hospitality elective to be chosen from any HSP course not listed as a requirement for Hospitality majors.

* See General Education section of this Catalog for electives.
INTERIOR DESIGN TECHNOLOGY

Program description. The Interior Design Technology program is designed to give students the combination of technical, marketing and communication skills that will qualify them for positions in interior design and related fields. This education, plus four years of diversified interior design work experience and successful completion of the National Council for Interior Design Qualification examination, qualifies the graduate of this program for licensing as a professional interior designer.

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:
Design Assistant
Merchandiser or Representative of a Related Industry

After successfully completing the Interior Design Technology program, graduates are prepared for advanced work in a four- or five-year interior design program or for immediate employment. In preparation for advanced work, graduates will be equipped to do the following:

I. Understand fundamentals of art and design, theories of design and human behavior, and design-related history.
II. Apply the knowledge, skills, processes and theories of interior design.
III. Communicate effectively.
IV. Design within the context of building systems and use appropriate materials and products.
V. Apply the laws, codes, regulations, standards, and practices that protect the health, safety, and welfare of the public.

Contact(s): Margaret Ann Jeffries, Program Coordinator, mjeffries@pstcc.edu, (865) 539-7084; Catherine Kendall, clkendall@pstcc.edu, (865) 694-6505

Interior Design Technology—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)  
ART 1011 Drawing I..................................................3  
ART 1110 2-D Design .............................................3  
ENGL 1010 English Composition I.................................3  
IDT 1001 Introduction to Interior Design .......................3  
IDT 1310 Fundamentals of Architectural Drafting .............3

Semester II (Spring)  
ART 1031 Three-Dimensional Media.............................3  
GEN ED 1 General Education Elective..............................3-5  
IDT 1100 Materials & Process ....................................3  
IDT 1360 AutoCAD & CAD Applications for Interior Design...3  
RCS 1200 Textiles for Interiors.................................3
<table>
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<tr>
<th>Semester III (Fall)</th>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 2950</td>
<td>Intermediate Design &amp; Color</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IDT 1030</td>
<td>History of Interiors</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IDT 2611</td>
<td>Kitchen &amp; Bath Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH/NS *</td>
<td>Mathematics/Natural Sciences Elective</td>
<td>3-5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester IV (Spring)</th>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ELEC 2</td>
<td>Guided Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IDT 2030</td>
<td>Modern Interiors &amp; Architecture</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IDT 2630</td>
<td>Visualization Techniques</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IDT 2640</td>
<td>Residential Design &amp; Construction</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SBS *</td>
<td>Social/Behavioral Sciences Elective</td>
<td>3-4</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credit Hours Needed for Graduation:** 60

**General Education:**
- General Education elective to be chosen from one unduplicated course in the categories of communication, humanities/fine arts, mathematics/natural sciences, or social/behavioral sciences in the General Education section of this Catalog and Handbook.
- ELEC 2 Guided elective to be chosen from IDT 2050, 2500 or 2900.

*See the General Education section of this Catalog for electives.

**MANAGEMENT**

**Accreditation:** Accredited by the Association of Collegiate Business Schools and Programs.

**Program description.** The mission of the Management program is to produce graduates with the skills necessary to effectively manage and provide leadership of any organization’s most important resource: its people.

**Degree:** Associate of Applied Science (A.A.S.)

The Management program is directed toward three groups of students. The first group is those mature students who are working in organizations and need to update skills in order to move along the career track. The second group is those students who are just starting their careers and are seeking entry-level skills. The third group is those students in other associate’s degree programs who wish to double-major to provide themselves with the necessary people skills to successfully manage in their career field.

In management, almost all organizations promote team leaders and supervisors from within the firm. Because of this fact, Management majors are very strongly encouraged to accept entry-level jobs with potential career-track employers while they are pursuing a degree. This allows the student to build relevant experience and to apply management concepts and techniques taught in the classroom while proving themselves as candidates for full-time employment after graduation.

**Typical job opportunities:**
- Team Leader
- Supervisor
- Human Resources Assistant
- Small Business Manager/Owner
- Management Trainee
- Branch Manager
After successfully completing the Management program, the graduate will be equipped to do the following:

I. Understand the basic principles of management, both qualitative and quantitative, and apply them to the management field.

II. Integrate management with other areas in the business environment.

III. Identify problems and use appropriate techniques to find solutions.

IV. Work independently with a network of individuals and also function within a work team.

V. Demonstrate basic skills that include competencies in mathematics, computer applications and communications.

VI. Function competently as a citizen and consumer.

VII. Continue to develop knowledge skills as needed in the management field.

Contact(s): Roger Crowe, rcrowe@pstcc.edu; Business and Computer Technology, (865) 694-6656

Management—Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)  
ENGL 1010  English Composition I...........................................3
MGT 2000  Principles of Management........................................3
MKT 2200  Principles of Marketing..............................................3
OST 1211  Word/Excel/PowerPoint.............................................3
SPH 2100  Public Speaking.......................................................3

Semester II (Spring)  
ECN 2010  Principles of Economics..........................................4
MGT 2030  Team Leadership....................................................3
MGT 2050  Human Resources.....................................................3
MGT 2160  Quality Improvement...............................................3
MATH 1530  Elementary Probability & Statistics.........................3

Semester III (Fall)  
ACC 2000  Principles of Accounting I.......................................3
ENGL 2950  Business & Technical Writing...................................3
LAW 2300  Contracts & UCC......................................................3
MGT 2100  Information Systems.................................................3
MGT 2170  Project Management................................................3

Semester IV (Spring)  
FIN 2000  Financial Management.............................................3
HUM  *  Humanities/Fine Arts Elective.......................................3
MGT 2180  Team Practicum......................................................3
MGT 2240  Business Capstone..................................................3
MGT 2471  Management Internship.............................................3

Total Credit Hours Needed for Graduation: 61

* See the General Education section of this Catalog for electives.
MECHANICAL ENGINEERING TECHNOLOGY

Accreditation: Mechanical, Manufacturing and Quality Control concentrations are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

Program description. The Associate of Applied Science degree in Mechanical Engineering Technology offers a core curriculum in engineering technology with multiple concentrations: mechanical, manufacturing and quality control.

Manufacturing concentration. The Manufacturing concentration is designed for students interested in computer-assisted methods of manufacturing. Areas of emphasis include CNC machining (mill, wire EDM and turning), geometric dimensioning and tolerancing (GD&T) and computer-assisted measuring.

Mechanical concentration. The “traditional” Mechanical concentration is designed for students interested in technical assistance design and maintenance technology. Areas of emphasis include materials, fluid mechanics, power applications and applied mechanics.

Quality Control concentration. The Quality Control concentration is designed for students interested in process control, testing and analysis of product quality. Areas of emphasis include testing fundamentals, destructive testing, nondestructive testing, computer-assisted measuring and statistical process control (SPC).

Degree: Associate of Applied Science (A.A.S.)

Typical job opportunities:
- Engineering Assistant
- Maintenance Technician
- CNC Operator/Programmer
- Manufacturing Technician
- CMM Programmer
- Quality Technician

Educational objectives. After successfully completing the Mechanical Engineering Technology program, the graduate will be qualified to accomplish the following objectives related to mechanical, manufacturing or quality control technologies:

I. Apply basic engineering theories and concepts.
II. Identify and solve work-related problems with minimum assistance.
III. Operate equipment and instruments with a high degree of skill.
IV. Communicate effectively.
V. Apply the principles of good work ethics.
VI. Obtain gainful employment in the mechanical engineering technology discipline or matriculate to a four-year program in engineering technology.

Program outcomes. Upon completion of the Mechanical Engineering Technology program, the student will have demonstrated the ability to

A. Apply the knowledge of mathematics, science and engineering technology.
B. Use the techniques and modern engineering tools needed for engineering technology practices.
C. Identify, formulate and solve engineering technology-based problems.
D. Design and conduct experiments, as well as analyze and interpret collected data.
E. Design or fabricate a system, subsystem, component or process to meet specified needs.
F. Read and extract information from manuals, journals and other discipline literature.
G. Communicate effectively, including verbal, writing and graphical skills.
H. Function and contribute positively in team situations.
I. Comprehend social, professional and ethical responsibilities, including development of a respect for diversity and other contemporary issues.
J. Realize the impact of engineering technology solutions in a global and societal context.
K. Realize the importance of a commitment to quality, timeliness and continuous improvement.
L. Recognize the importance of lifelong learning.

Contact(s): Pat Riddle, Program Coordinator, (865) 694-6514, priddle@pstcc.edu

**Mechanical Engineering Technology/Manufacturing Concentration—Courses and Course Sequence**

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CID 1100</td>
<td>Fundamentals of Technical Drawing W/Lab..</td>
<td>3</td>
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<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGT 1000</td>
<td>Engineering Technology Applications &amp; Communications</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MATH 1730</td>
<td>Precalculus</td>
<td>5</td>
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</tr>
<tr>
<td>MET 1020</td>
<td>Shop Practices</td>
<td>4</td>
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<table>
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<tr>
<th>Semester II (Spring)</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MET 1012</td>
<td>Materials &amp; Manufacturing Processes</td>
<td>4</td>
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<tr>
<td>MET 2310</td>
<td>Geometrics &amp; Coordinate Measuring</td>
<td>4</td>
<td></td>
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<tr>
<td>MET 2700</td>
<td>CNC Milling</td>
<td>4</td>
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<tr>
<td>PHYS 2010</td>
<td>Noncalculus Based Physics I</td>
<td>4</td>
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<tr>
<th>Semester III (Fall)</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>EET 1012</td>
<td>Electrical Circuits I W/Lab..</td>
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<tr>
<td>MATH 1530</td>
<td>Elementary Probability &amp; Statistics</td>
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<tr>
<td>or MATH 1840</td>
<td>Technical Calculus</td>
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<tr>
<td>MET 1040</td>
<td>Applied Statics</td>
<td>3</td>
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<tr>
<td>MET 2720</td>
<td>CNC Turning</td>
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<tr>
<th>Semester IV (Spring)</th>
<th>Course Code</th>
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<tbody>
<tr>
<td>CHEM 1110</td>
<td>General Chemistry I</td>
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<tr>
<td>MET 1051</td>
<td>Strength of Materials</td>
<td>4</td>
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</tr>
<tr>
<td>MET 2740</td>
<td>Advanced CNC Machining</td>
<td>2</td>
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</tr>
<tr>
<td>PHIL 2400</td>
<td>Introduction to Ethics</td>
<td>3</td>
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<tr>
<td>SOC 1010</td>
<td>General Sociology</td>
<td></td>
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<tr>
<td>or SOC 1020</td>
<td>Social Problems &amp; Social Change</td>
<td>3</td>
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</table>

**Total Credit Hours Needed for Graduation:** 64
Mechanical Engineering Technology/Mechanical Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CID 1100 Fundamentals of Technical Drawing W/Lab....3
ENGL 1010 English Composition I.........................3
ENGT 1000 Engineering Technology Applications & Communications ...........................................4
MATH 1730 Precalculus.........................................5
MET 1020 Shop Practices........................................4

Semester II (Spring)

ET 1 Engineering Technology Elective.......................3
MET 1012 Materials & Manufacturing Processes........4
MET 1040 Applied Statics....................................3
PHYS 2010 Noncalculus Based Physics I.................4

Semester III (Fall)

EET 1012 Electrical Circuits I W/Lab.........................3
MATH 1840 Technical Calculus................................3
MET 1051 Strength of Materials.............................4
MET 2020 Fluid Mechanics & Power Applications........4

Semester IV (Spring)

CHEM 1110 General Chemistry I............................4
ET 1 Engineering Technology Elective.......................3
MET 2025 Applied Mechanics................................4
PHIL 2400 Introduction to Ethics...........................3
SOC 1010 General Sociology or SOC 1020 Social Problems & Social Change....................3

Total Credit Hours Needed for Graduation: 64

ET 1 Approval by MET advisor required.

Mechanical Engineering Technology/Quality Control Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)

CID 1100 Fundamentals of Technical Drawing W/Lab....3
ENGL 1010 English Composition I.........................3
ENGT 1000 Engineering Technology Applications & Communications ...........................................4
MATH 1730 Precalculus.........................................5
MET 1020 Shop Practices........................................4

Semester II (Spring)

MATH 1530 Elementary Probability & Statistics..........3
MET 1012 Materials & Manufacturing Processes........4
MET 2800 Fundamentals of Testing........................3
PHYS 2010 Noncalculus Based Physics I.................4
Program description. The Media Technologies program encompasses related career-technical disciplines in four general concentrations: Communication Graphics Technology, Photography, Video Production Technology and Web Technology. Students will earn a degree in a cross-disciplinary environment that reflects the trend in industry. The program employs instructors with years of practical experience and is guided by working professionals.

The Media Technologies program is designed to offer greater flexibility to students who can, working with an advisor, design a custom curriculum best suited to their needs and interests. The program offers certificates for those needing broader, deeper and/or upgraded training. To learn more about these options, see the Certificate Programs section of this Catalog.

Communication Graphics Technology concentration. The Communication Graphics Technology concentration educates students in the art of visual communications. The student receives hands-on training in visual fundamentals, problem-solving and visual/verbal concept development for advertising, graphic design, and illustration. Emphasis is placed on the use of computer-enhanced technology and contemporary software applications throughout the program to support the development of professional portfolios. Career opportunities typically include work with the following: design consulting firms, advertising agencies, electronic prepress service bureaus, media outlets and printing companies, in-house agencies, Web page design and development firms, and freelance practice.

Photography concentration. The Photography concentration is designed for the individual interested in a career in photography as a staff photographer for a publication, business or industry; photofinishing technician; digital imaging technician, photographic support industry personnel; freelance photographer; or studio owner/manager. Electives allow the student to specialize in commercial photography, photojournalism, portraits, weddings or photofinishing.

Video Production Technology concentration. The Video Production Technology concentration offers condensed but intensive hands-on experience with industry-standard equipment and processes. Students learn to work in a broadcast studio and on location. They use commercially popular analog and digital equipment and software. They are offered basic and advanced training in scriptwriting, audio recording and mixing, electronic cinematography and lighting, producing, directing, budgeting and computer applications. Typical job opportunities include videographer, editor, video illustrator and production assistant.
Web Technology concentration. The Web Technology concentration offers a degree built around Certified Internet Web Professional certification that validates students’ competency in information technology industry standards and proves their knowledge of leading hardware and software technology. The College currently offers courses that lead to Master CIW Designer and Master CIW Web Site Manager certifications. These national certifications are built into the associate’s degree and Web certificates. These IT professionals develop and maintain Web sites using authoring and scripting languages, create content and digital media, manage and deploy e-business solutions servers, manage Web servers and maintain Web sites for small- to large-scale enterprises. The concentration is delivered completely over the Internet, enabling individuals to have greater access and opportunity to fill IT-based jobs. The College also serves as the regional online CIW Faculty Institute to train teachers of Web design courses. Typical job opportunities include: e-commerce specialist, Webmaster, Web site designer, Web site developer, online services manager and Web site manager.

Degree: Associate of Applied Science (A.A.S.)

After successfully completing the Media Technologies program, the graduate will be equipped to do the following:

I. Create media that communicate the desired message to the intended audience.
II. Use a wide variety of industry-standard equipment, techniques, software, hardware and materials to produce the appropriate content.
III. Demonstrate various styles in communications media that display a grasp of both design and communication principles and techniques.
IV. Demonstrate proficiency in the techniques and equipment that facilitate adaptation to constantly changing media.
V. Understand and respect the rights and responsibilities of the artist, subject, client, user and employer, including intellectual property rights.
VI. Create a portfolio demonstrating design and communication skills, technical competence, and industry standards and practices.

Contact(s): Communication Graphics Technolog: David Gilbert, (865) 694-6750, dgilbert@pstcc.edu; Photography: KD Lawson, (865) 971-5219, kdlawson@pstcc.edu; Video Production Technology: Ron Bellamy, (865) 694-6444, rbellamy@pstcc.edu; Web Technology: Gay Bryant, (865) 694-6488, gbryant@pstcc.edu

Media Technologies/Communication Graphics Technology Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)                      ART 1011 Drawing I.................................................................3
                                CGT 1030 Introduction to Macintosh Graphic Design........3
                                CGT 1950 Design Fundamentals...........................................3
                                ENGL 1010 English Composition I.....................................3
                                MDT 1000 Introduction to Media Technologies..................3
### Semester II (Spring)

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<td>CGT 1105</td>
<td>Digital Graphic Design I</td>
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<td>CGT 1110</td>
<td>Typography</td>
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<td>CGT 1911</td>
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### Semester III (Fall)

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<td>CGT 2040</td>
<td>Computer Illustration</td>
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<td>CGT 2140</td>
<td>Desktop Publishing</td>
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<tr>
<td>MATH/NS</td>
<td>Mathematics/Natural Sciences Elective</td>
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### Semester IV (Spring)

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<td>MDT 2998</td>
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<td>SBS</td>
<td>Social/Behavioral Sciences Elective</td>
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Total Credit Hours Needed for Graduation: 60

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**Media Technologies/Photography Concentration—Courses and Course Sequence**

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

#### Semester I (Fall)

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<td>CGT 1030</td>
<td>Introduction to Macintosh Graphic Design</td>
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<tr>
<td>or VPT 1030</td>
<td>Intro to Desktop Video/Audio</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English Composition</td>
<td>3</td>
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<tr>
<td>MATH/NS</td>
<td>Mathematics/Natural Sciences Elective</td>
<td>3-5</td>
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<tr>
<td>MDT 1000</td>
<td>Introduction to Media Technologies</td>
<td>3</td>
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<tr>
<td>PHO 1000</td>
<td>Introduction to Photography</td>
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#### Semester II (Spring)

<table>
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<tr>
<td>HUM</td>
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<td>MDT 2100</td>
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<tr>
<td>PHO 1100</td>
<td>Advanced Photographic Techniques</td>
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</table>
Semester III (Fall)  
PHO 2060 Advanced Digital Imaging Techniques ........... 3  
PHO 3 Photography Electives ........................................ 9  
SBS * Social/Behavioral Sciences Elective ............. 3-4

Semester IV (Spring)  
MDT 2800 Professional Practices ................................... 3  
MDT 2998 Media Technologies Internship ..................... 2  
MDT 2 Media Technologies Electives ........................... 9  
PHO 2850 Photography Portfolio .................................. 1

Total Credit Hours Needed for Graduation: 60

GEN ED 1 General Education elective to be chosen from one unduplicated course in the categories of communication, humanities/fine arts, mathematics/natural sciences, or social/behavioral sciences in the General Education section of this Catalog.

MDT 2 Media Technologies electives to be chosen from CGT 1105; PHO 2200, 2300, 2400, 2500; VPT 1030, 1045, 1400; WEB 2120, 2811 based on students’ career needs and interests. Electives must be approved by the student’s advisor or the program coordinator. Some courses may require prerequisites.

PHO 3 Photography electives to be chosen from JOU 2000, 2030; MGT 2000; MKT 2200; PHO 2100, 2200, 2300, 2400, 2500, 2700, 2950.

* See the General Education section of this Catalog for electives.

Media Technologies/Video Production Technology Concentration—
Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

Semester I (Fall)  
ENGL 1010 English Composition I ................................. 3  
MDT 1000 Introduction to Media Technologies ............... 3  
VPT 1030 Introduction to Desktop Video/Audio ............... 3  
VPT 1045 Technical Video Production ............................. 3  
VPT 1090 Campus Broadcast I ....................................... 3

Semester II (Spring)  
HUM * Humanities/Fine Arts Elective ........................... 3  
VPT 1015 Sound Production ......................................... 3  
VPT 1210 Video Editing .............................................. 4  
VPT 1400 Scriptwriting for Mass Media ......................... 3  
VPT 1500 Campus Broadcast II ..................................... 3

Semester III (Fall)  
GEN ED 1 General Education Elective ......................... 3-5  
MATH/NS * Mathematics/Natural Sciences Elective ........ 3-5  
MDT 2 Media Technologies Elective ............................ 3  
VPT 2330 Budgeted Production .................................... 3  
VPT 2500 Campus Broadcast III .................................... 3
### Semester IV (Spring)

<table>
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<th>Course Code</th>
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<td>MDT 2998</td>
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<td>MDT 2</td>
<td>Media Technologies Elective</td>
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<td>SBS *</td>
<td>Social/Behavioral Sciences Elective</td>
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<tr>
<td>VPT 2770</td>
<td>Documentary Production</td>
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<tr>
<td>VPT 2910</td>
<td>Campus Broadcast IV</td>
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**Total Credit Hours Needed for Graduation:** 60

### GEN ED 1

General Education elective to be chosen from one unduplicated course in the categories of communication, humanities/fine arts, mathematics/natural sciences, or social/behavioral sciences in the General Education section of this Catalog.

### MDT 2

Media Technologies electives to be chosen from CGT 1040; MDT 2100; MUS 1300; PHO 2060; VPT 1020, 1050, 2015, 2215, 2400, 2660; WEB 2120 based on students’ career needs and interests. Electives must be approved by the student’s advisor or the program coordinator. Some courses may require prerequisites.

* See the General Education section of this Catalog for electives.

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### Media Technologies/Web Technology Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor. This program may be completed totally online with most of the courses offered in a traditional format as well.

#### Semester I (Fall)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
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<td>Humanities/Fine Arts Elective</td>
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<tr>
<td>MDT 1000</td>
<td>Introduction to Media Technologies</td>
<td>3</td>
</tr>
<tr>
<td>SBS *</td>
<td>Social/Behavioral Sciences Elective</td>
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<tr>
<td>WEB 2200</td>
<td>CIW Foundations</td>
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<td>WEB 2291</td>
<td>CIW Foundations Certification</td>
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#### Semester II (Spring)

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<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH/NS *</td>
<td>Mathematics/Natural Sciences Elective</td>
<td>3-5</td>
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<tr>
<td>MDT 2100</td>
<td>Photoshop Essentials</td>
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<tr>
<td>WEB 2000</td>
<td>Dreamweaver/Fireworks</td>
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<td>WEB 2210</td>
<td>CIW Site Designer</td>
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<td>WEB 2300</td>
<td>CIW JavaScript Fundamentals</td>
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<td>WEB 2391</td>
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#### Semester III (Fall)

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MDT 2998</td>
<td>Media Technologies Internship</td>
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<tr>
<td>WEB 2110</td>
<td>Flash</td>
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<td>WEB 2220</td>
<td>CIW E-Commerce</td>
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<td>WEB 2293</td>
<td>CIW E-Commerce Certification</td>
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<td>WEB 2350</td>
<td>CIW XML/DHTML/CSS/XHTML</td>
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<td>WEB 2701</td>
<td>Introduction to PHP for Web Development</td>
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<tr>
<td>WEB 2703</td>
<td>Adobe Acrobat</td>
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<td>WEB 2811</td>
<td>Advanced Computer Graphics</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<td>GEN ED 1</td>
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<td>MDT 2</td>
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<td>WEB 2400</td>
<td>Web Project Management</td>
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<tr>
<td>WEB 2702</td>
<td>Introduction to ASP for Web Development</td>
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<tr>
<td>WEB 2902</td>
<td>Web Team Practicum</td>
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**Total Credit Hours Needed for Graduation:** 60

General Education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics/Natural Sciences or Social/Behavioral Sciences in the General Education section of this Catalog.

Media Technologies electives to be chosen from CGT 1030, 1040; OST 2801/02/03; PHO 1000, 2060; VPT 1015, 1030, 1045; WEB 2120, 2501, 2601, 2691, 2812 based on students’ career needs and interests. Electives must be approved by the student’s advisor or the program coordinator. Some courses may require prerequisites.

* See the General Education section of this Catalog for electives.

**NETWORKING AND COMMUNICATIONS SYSTEMS TECHNOLOGY**

*Program description.* The Networking and Communications Systems Technology program offers a core curriculum that provides the academic and technical background for individuals who wish to prepare for successful employment in network design and administration. The focus of the curriculum is on student performance of administrative functions and support for local and wide area networks. Additionally, emphasis is placed on system monitoring and management, network testing, and system configuration and implementation. The Networking and Communications Systems Technology students complement their studies with an internship at a selected site that allows students to gain on-the-job experience prior to graduation.

**Typical job opportunities:**

- Network Engineer/Administrator
- Technical Support Specialist
- Systems Engineer/Administrator

After successfully completing the Networking and Communications Systems Technology program, the graduate will be equipped to do the following:

I. Demonstrate problem-solving skills.
II. Secure employment within the information technology industry.
III. Implement problem solutions.

**Degree:** Associate of Applied Science (A.A.S.)

**Contact(s):** Jerry Sherrod, (865) 694-6637, jsherrod@pstcc.edu

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.
<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
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<td>Humanities/Fine Arts Elective</td>
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<td>NETW 1010</td>
<td>PC Hardware (A+ Certification)</td>
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<td>NETW 1020</td>
<td>PC Operating System Software (A+ Certification)</td>
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<th>Course Code</th>
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<td>Mathematics/Natural Sciences Elective</td>
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<td>NETW 1100</td>
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<td>NETW 1200</td>
<td>Windows Professional</td>
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<td>NETW 1210</td>
<td>Windows Server</td>
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<td>NETW 2800</td>
<td>Special Topics in Networking</td>
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<td>NETW 1220</td>
<td>Administering Network Infrastructure</td>
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<td>NETW 2040</td>
<td>Managing a Windows Network Environment</td>
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<td>Networking Internship</td>
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<tr>
<td>SBS *</td>
<td>Social/Behavioral Sciences Elective</td>
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ELEC 1 Guided electives to be chosen from any CSIT, EET, GIS, HPC or WEB courses.

GEN ED 2 General Education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics/Natural Sciences, and Social/Behavioral Sciences in the General Education section of this Catalog.

NETW 3 Networking elective to be chosen from NETW 2020, 2120, 2800.

* See the General Education section of this Catalog for electives.
NURSING

Program description. Through a cooperative arrangement between Pellissippi State and Roane State Community College, students may pursue a degree in Nursing through the Tennessee Board of Regents Magnolia Avenue Nursing Center located on Pellissippi State’s Magnolia Avenue Campus. Prerequisite courses are provided by Pellissippi State in a variety of formats and at different locations.

Once accepted into the Nursing program, students follow the required schedule of Roane State nursing courses offered over four semesters of study. The program emphasizes patient-centered approaches to nursing care and includes clinical application of nursing theory and principles.

Upon successful completion of the program, the student will be awarded an Associate of Applied Science in Nursing by Roane State and will become eligible to take the state board examination to become a registered nurse. The graduate nurse is able to provide highly skilled nursing care for patients and families in a variety of health-care delivery settings.

Contact(s): Susan McMahon, Program Coordinator for Pre-nursing Education at Pellissippi State, (865) 539-7050, smcmahon@pstcc.edu; Sharon Tanner, Dean of Health Sciences/Nursing at Roane State, (865) 882-4604, tannersj@roanestate.edu.

OFFICE SYSTEMS TECHNOLOGY

Program description. The Associate of Applied Science degree in Office Systems Technology offers a core curriculum that provides an academic/technical foundation for individuals who wish to prepare for positions in business and industry using personal computer applications and office skills. During the last semester of the two-year curriculum, office skills will be assessed using an exam, the Office Proficiency Assessment and Certification (OPAC), developed by the International Association of Administrative Professionals. The OPAC exam is nationally normed and validated and measures proficiency in keyboarding, word processing, language arts, records management, and financial applications. Students may choose to certify based on the results of the exam.

Holders of the Certified Professional Secretary (CPS) certification may receive credit for 16 semester hours at Pellissippi State by presenting proof that they have passed all parts of the exam and have successfully completed 12 semester hours at Pellissippi State. Part or all of these credits count toward a degree at Pellissippi State (depending on the program chosen). See the Admissions and Registration Information section for additional information on CPS credits.

Business concentration. The Business curriculum is designed to update the skills required in the changing office environment and to enhance the training required for traditional office careers. Courses allow for specialized training for work environments using the newest hardware and software for business information work centers as well as professional word processing, desktop publishing applications and Web pages.
Health Care Office Administration concentration. This curriculum provides a course of study for individuals who wish to prepare for positions in a medical office. Courses allow for specialized training in medical terminology, coding, and insurance using the latest hardware and software for offices as well as professional word processing applications.

**Degree:** Associate of Applied Science (A.A.S.)

**Typical job opportunities:**
- Administrative Assistant/Secretary
- Clerk/Receptionist
- Coding, Billing & Insurance Specialist
- Computer Applications Specialist
- Desktop Publishing Specialist
- Medical Office Administrator
- Medical Transcriptionist
- Office Manager
- Word/Information Processing Supervisor

After successfully completing the Office Systems Technology program, the graduate will be equipped to do the following:

I. Use computer application programs (word processing, spreadsheet, database, presentation, Web editors, etc.).

II. Keyboard accurately.

III. Understand and use terminology specific to his/her field.

IV. Communicate effectively.

V. Use reference materials.

VI. Show a positive attitude and work ethic.

VII. Transcribe from machine dictation.

VIII. Work independently with a network of individuals and also function within a work team.

IX. Use proofreading skills involving grammar, punctuation and language arts.

X. Organize work and follow time and records management techniques.

XI. Adapt to changes in the work environment; develop problem-solving skills.

XII. Use the Internet for research.

**Contact(s):** Janice Wade, Program Coordinator, (865) 694-6656, jwade@pstcc.edu

**Office Systems Technology/Business Concentration—Courses and Course Sequence**

**Special note:** All Business and Computer Technology students who do not type 28 words per minute must enroll in OST 1100. All OST students are required to take the Office Proficiency Assessment and Certification (OPAC) exam before graduating.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

**Semester I (Fall)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
</tr>
<tr>
<td>HUM *</td>
<td>Humanities/Fine Arts Elective</td>
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<tr>
<td>MGT 2000</td>
<td>Principles of Management</td>
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<td>Semester I (Fall)</td>
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</tr>
<tr>
<td>ENGL 1010</td>
<td>3</td>
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<tr>
<td>MATH 1530</td>
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<tr>
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<th>Semester III (Fall)</th>
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<tbody>
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<td>ACC 2000</td>
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<td>MGT 2100</td>
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<td>OST 2120</td>
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<td>OST 2340</td>
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<table>
<thead>
<tr>
<th>Semester IV (Spring)</th>
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<tbody>
<tr>
<td>MATH 1530</td>
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<td>OST 2015</td>
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<td>OST 2302</td>
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<td>OST 2360</td>
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<td>OST 2600</td>
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</tr>
</tbody>
</table>

Total Credit Hours Needed for Graduation: 61

* See the General Education section of this Catalog for electives.

Office Systems Technology/Health Care Office Administration Concentration—
Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute must enroll in OST 1100. All OST students are required to take the Office Proficiency Assessment and Certification (OPAC) exam before graduating.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.
**Semester III (Fall)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACC 2000</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>OST 2340</td>
<td>Records Management</td>
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<td>OST 2935</td>
<td>Medical Transcription</td>
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<td>OST 2940</td>
<td>Medical Insurance Coding</td>
<td>3</td>
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<tr>
<td>SPH 2100</td>
<td>Public Speaking</td>
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**Semester IV (Spring)**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HUM</td>
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<tr>
<td>MGT 2030</td>
<td>Team Leadership</td>
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<tr>
<td>OST 2010</td>
<td>Office Proficiency Assessment &amp;</td>
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</tr>
<tr>
<td></td>
<td>Certification</td>
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<tr>
<td>OST 2925</td>
<td>Medical Practicum</td>
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<tr>
<td>OST 2945</td>
<td>Insurance Billing &amp; Coding</td>
<td>3</td>
</tr>
<tr>
<td>OST 2950</td>
<td>Health Care Insurance Survey</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credit Hours Needed for Graduation:** 61

* See the General Education section of this Catalog for electives.

**PARALEGAL STUDIES**

**Accreditation:** The Paralegal Studies program is approved by the American Bar Association.

**Program description.** A paralegal works in a law office under the direct supervision of an attorney doing legal work such as drafting legal documents and doing file organization, legal research, investigations, and office management. The Paralegal Studies program offers a core of general education and a core of legal specialty courses designed for paralegals. Although paralegals are not permitted to practice law, they can, while working under the supervision of an attorney, perform many law office tasks once done solely by an attorney.

**Degree:** Associate of Applied Science (A.A.S.)

**Typical placement areas:**
- Law Firms
- Legal Aid Services
- Corporate Law Departments
- Insurance and Accounting Firms
- Real Estate and Title Companies
- Government Legal Departments

After successfully completing the Paralegal Studies program, the graduate will be equipped to do the following:

I. Understand and apply principles of law and legal ethics.
II. Demonstrate entry-level employment skills acquired through the legal specialty courses.
III. Demonstrate analytical and problem-solving skills.
IV. Demonstrate effective verbal and written communication.
V. Demonstrate an understanding and practical application of law-office management and related computer applications in the legal environment.

**Contact(s):** Arlene Cleveland, Program Coordinator, (865) 971-5225, acleveland@pstcc.edu; Elizabeth McCowan, eimccowan@pstcc.edu; Paralegal Studies, (865) 971-5217
Paralegal Studies—Courses and Course Sequence

Special note: All Business and Computer Technology students who do not type 28 words per minute with five or fewer errors must enroll in OST 1100. Only students with college-level English skills (i.e. those eligible to enroll in ENGL 1010) may enroll in LAW courses.

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

| Semester I (Fall)                      | ENGL 1010  English Composition I .........................................3 |
|                                      | LAW 1000  Introduction to Law & Ethics ........................................3 |
|                                      | MATH  *  Mathematics Elective ...................................................3-5 |
|                                      | OST 1211  Word/Excel/PowerPoint ................................................3 |
|                                      | SPH 2100  Public Speaking ........................................................3 |
| Semester II (Spring)                  | +LAW 1050  Legal Writing & Analysis ...........................................3 |
|                                      | +LAW 1060  Legal Research ...........................................................3 |
|                                      | +LAW 2100  Torts .................................................................3 |
|                                      | LAW  *  LAW Elective .................................................................3 |
|                                      | OST 2700  Legal Terminology & Transcription ..................................3 |
| Semester III (Fall)                   | ACC 2000  Principles of Accounting I ...........................................3 |
|                                      | +LAW 2030  Property Law .............................................................3 |
|                                      | +LAW 2210  Litigation Skills I ...................................................3 |
|                                      | +LAW 2300  Contracts & UCC ..........................................................3 |
|                                      | SBS  *  Social/Behavioral Sciences Elective ..................................3-4 |
| Semester IV (Spring)                  | HUM  *  Humanities/Fine Arts Elective ..........................................3 |
|                                      | +LAW 2220  Litigation Skills II ..................................................3 |
|                                      | +LAW 2800  Legal Internship .......................................................3 |
|                                      | LAW  *  LAW Elective .................................................................3 |
|                                      | SBS  *  Social/Behavioral Sciences Elective ..................................3-4 |

Total Credit Hours Needed for Graduation: 60

LAW  *  LAW electives to be chosen from LAW 1020, 2020, 2040, 2110, 2120, 2500, 2600, 2620, 2900.

+Law specialty course

PHOTOGRAPHY

(SEE MEDIA TECHNOLOGIES)
**SECURITY ENGINEERING AND ADMINISTRATION TECHNOLOGY**

Program description. Security Engineering and Administration Technology offers a cross-disciplinary program that provides an academic/technical foundation for individuals who wish to prepare for positions in administrative and technical security fields. Security Engineering and Administration Technology students complement their studies with an internship at a selected site that allows them to gain on-the-job experience prior to graduation.

**Security Administrator concentration:** The Security Administrator concentration is designed for students interested in the administration of physical and personnel security. Areas of emphasis include investigation techniques, emergency planning, cybersecurity and security management.

**Security Technician concentration:** The Security Technician concentration is designed for students interested in the technical applications of physical and personnel security. Areas of emphasis include alarm systems installation, electrical circuit analysis and other security systems.

**Degree:** Associate of Applied Science (A.A.S.)

**Typical job opportunities:** Career opportunities for graduates can be found in private business and industry, federal agencies, airports, public safety works, police agencies, and many other areas now regulated under the Department of Homeland Security.

After successfully completing the Security Engineering and Administration Technology program, the graduate will be equipped to do the following:

I. Demonstrate a practical and theoretical understanding of the process of organizational planning for physical, personnel and/or information security at strategic, tactical and operational levels.

II. Critically analyze and articulate positions on the legal and ethical implications and influences on security management and operations, including relevant codes of ethics and federal and state laws.

III. Recognize, define and implement appropriate security solutions to real and anticipated threats.

IV. Adapt to emerging developments and applications in the security industry.

V. Work independently with a network of individuals and also function within a work team.

VI. Communicate effectively and professionally both orally and in writing.

VII. Qualify for entry-level positions or career advancement in security-related fields.

**Contact(s):** John Sterling, (865) 539-7272, jasterling@pstcc.edu

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**Security Engineering and Administration Technology/Security Administrator Concentration—Courses and Course Sequence**

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

**Semester I (Fall)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HPC 1010</td>
<td>HPC Internetworking Security</td>
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### Semester I (Fall)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EET 1012</td>
<td>Electrical Circuits I W/Lab</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HPC 1010</td>
<td>HPC Internetworking Security</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1130</td>
<td>College Algebra</td>
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<tr>
<td>or MATH 1730</td>
<td>Precalculus</td>
<td>3-5</td>
</tr>
<tr>
<td>SEAT 1000</td>
<td>Intro to Security Engineering &amp; Administration Technology</td>
<td>3</td>
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</table>

### Semester II (Spring)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HUM  *</td>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
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<tr>
<td>SEAT 1300</td>
<td>Emergency Planning</td>
<td>3</td>
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<tr>
<td>SEAT 1500</td>
<td>Security Management I</td>
<td>3</td>
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<tr>
<td>SEAT 1700</td>
<td>Physical and Personnel Security</td>
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<tr>
<td>SEAT 1900</td>
<td>Legal Aspects of Security Administration</td>
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### Semester III (Fall)

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HPC 2007</td>
<td>HPC Intrusion Detection &amp; Countermeasures</td>
<td>4</td>
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<td>HPC 2010</td>
<td>HPC Security Applications &amp; Technology</td>
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<td>SEAT 2500</td>
<td>Security Management II</td>
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<tr>
<td>SEAT 2800</td>
<td>Professional Practice</td>
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### Semester IV (Spring)

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<th>Course</th>
<th>Title</th>
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<tr>
<td>GEN ED 1</td>
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<td>SBS  *</td>
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<tr>
<td>SEAT 2</td>
<td>SEAT Guided Electives</td>
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<tr>
<td>SEAT 2900</td>
<td>SEAT Internship</td>
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</table>

**Total Credit Hours Needed for Graduation:** 60

* See the General Education section of this Catalog for electives.

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### Security Engineering and Administration Technology/Security Technician Concentration—Courses and Course Sequence

This sequence can be followed by students who begin college-level work in the fall semester. Prerequisites may apply to specific courses; it is the student’s responsibility to determine if prerequisites have been met. An academic advisor is provided for each student. Prior to registering each semester, the student is expected to consult with his/her assigned advisor.

**Semester I (Fall)**

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<th>Course</th>
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<tbody>
<tr>
<td>EET 1012</td>
<td>Electrical Circuits I W/Lab</td>
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</tr>
<tr>
<td>SEAT 1000</td>
<td>Intro to Security Engineering &amp; Administration Technology</td>
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Semester II (Spring)  
EET 1210  Active Devices I W/Lab................................. 4  
HUM *  Humanities/Fine Arts Elective ......................... 3  
SEAT 1400  Security Systems I........................................ 4  
SEAT 1600  Installation Practices.................................. 4

Semester III (Fall)  
EET 2220  Active Devices II W/Lab............................... 4  
EET 2715  Microcomputer Architecture............................. 4  
SEAT 2400  Security Systems II..................................... 3  
SEAT 2800  Professional Practice................................. 3

Semester IV (Spring)  
GEN ED 1  General Education Elective............................ 3-5  
SBS *  Social/Behavioral Sciences Elective......................... 3-4  
SEAT 2  SEAT Guided Electives.................................. 6  
SEAT 2900  SEAT Internship........................................ 3  

Total Credit Hours Needed for Graduation:  60

GEN ED 1  General Education elective to be chosen from one unduplicated course in the categories of Communication, Humanities/Fine Arts, Mathematics/Natural Sciences and Social/Behavioral Sciences in the General Education section of this Catalog.

SEAT 2  Security Engineering and Administration Technology guided electives chosen from SEAT 2600, any EET, HPC or SEAT courses not already required for the Security Technician concentration. Electives must be approved by the student’s advisor or the program coordinator. Some courses may require prerequisites.

* See the General Education section of this Catalog for electives.

VIDEO PRODUCTION TECHNOLOGY  
(SEE MEDIA TECHNOLOGIES)

WEB TECHNOLOGY  
(SEE MEDIA TECHNOLOGIES)
Certificate Programs

In This Section:
• Technical Certificate Programs
• Institutional Certificate Programs
Pelissippi State offers high-quality, short-term training in the form of certificate programs. Individual programs are designed for working students who wish to upgrade their skills or gain additional certification in a particular area. A technical certificate program is a college credit program from which, upon completion, the student receives a certificate from the Tennessee Board of Regents. An institutional certificate program is also a college credit program, one from which, upon completion, the student receives a certificate of completion from the College.

Students desiring to enroll in a certificate program should apply for admission as a special student and indicate on the application the certificate program in which they wish to enroll. The placement test and/or academic development courses are not required of students in technical and institutional certificate programs. Students enrolled in a certificate program in conjunction with a degree program must meet admission requirements for the degree program. All courses for the certificate program must be taken for credit.

**Minimum grade-point average.** A cumulative grade-point average (GPA) of at least 2.0 in all certificate coursework at Pellissippi State is required for a certificate.

Pelissippi State offers the following technical certificate programs:

- Local Area Network Operations/Management
- Photography (See Media Technologies)
- Supervision

Pelissippi State offers the following institutional certificate programs:

- Accounting Proficiency
- Banking
- Civil Structural Design Technology
- Computer Aided Manufacturing
- Computer Integrated Drafting & Design
- Cost Accounting
- Credit Union Management
- Customer Relationship Management
- E-Commerce
- Electronics Technician
- Food & Beverage Service
- Geographic Information Systems/Business
- Geographic Information Systems/Technical
- High Performance Computing/Security
- Industrial Maintenance
- Legal Secretary
- Linux System Administrator
- Lodging
- Manufacturing Automation Technician
- Mechanical & Electrical Systems Design Technology
- Media Technologies
  - Communication Graphics Technology
  - Photography (Technical Certificate)
  - Video Production Technology
  - Web Technology
- Medical Insurance Coding & Reimbursement
- Medical Transcription
- Microsoft Office Skills Enhancement
- Microsoft Office Specialist (MOS) Preparation
- Payroll/Taxation Accounting
- Project Management
- Quality Control
- Real Estate
- Surveying
- Travel & Tourism
ACCOUNTING PROFICIENCY (INSTITUTIONAL CERTIFICATE)

The Accounting Proficiency certificate program is designed to prepare students to quickly enter the accounting job market or update their technology and accounting skills for their current jobs. The certificate includes basic and advanced topics in financial and cost accounting as well as individual tax preparation, payroll and accounting software. Students will improve their technology skills as they use software packages such as Quickbooks, Peachtree, Excel, TurboTax and the Internet. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

**Foundation Courses**
- ACC 2000 Principles of Accounting I .......................................................3

**Core Courses**
- ACC 2030 Principles of Accounting II ......................................................3
- ACC 2140 Income Taxation ......................................................................3
- ACC 2500 Special Topics in Accounting ..................................................3

**Advanced Track Courses**
- ACC 2215 Intermediate Accounting I .......................................................3
- ACC 2360 Cost Accounting.......................................................................3
- ACC 2530 Accounting Systems.................................................................3

**TOTAL HOURS REQUIRED: 21**

BANKING (INSTITUTIONAL CERTIFICATE)

This certificate program is designed for personnel employed by the banking industry. The American Institute of Banking (AIB) assisted in developing the curriculum, which covers every facet of bank operations. Students must be employed by the banking industry. Students complete a total of 15 hours from the courses below for the certificate.

- ACC 2000 Principles of Accounting I
- BKG 2005 Accounting for Bankers ...........................................................3
- ACC 2030 Principles of Accounting II
- BKG 2100 Analyzing Financial Statements .......................................... 2-3
- BKG 2020 Principles of Banking ...............................................................2
- BKG 2060 Marketing for Banking...............................................................2
- BKG 2150 Introduction to Commercial Lending ......................................2
- BKG 2200 Consumer Lending ...................................................................2
- BKG 2240 Deposit Operation ....................................................................2
- BKG 2250 Money & Banking ....................................................................2
- BKG 2300 Law & Banking ........................................................................2
- BKG 2310 Law & Banking Applications .................................................2
- BKG 2350 Trust Business .........................................................................2
- BKG 2400 Commercial Bank Management ............................................3
- BKG 2420 Introduction to Mortgage Lending ..........................................2
- BKG 2450 Supervision or
- MGT 2000 Principles of Management .....................................................3
- BKG 2600 Bank Investments & Funds Management .........................2
- BKG 2700 Financial Planning .................................................................2

**TOTAL HOURS REQUIRED: 15**

CIVIL STRUCTURAL DESIGN TECHNOLOGY (INSTITUTIONAL CERTIFICATE)

The Civil Structural Design Technology certificate program provides the basic skills individuals need for a career in civil structural design technology. Several of the courses may be applied toward an associate’s degree. Courses in each level...
(Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
MATH 1730 Precalculus ..........................................................5

Core Courses
MET 1040 Applied Statics ..........................................................3

Advanced Track Courses
CET 2410 Structural Steel Design ..............................................3
CET 2420 Reinforced Concrete Design .....................................3
MET 1051 Strength of Materials ...............................................4

TOTAL HOURS REQUIRED: 18

COMMUNICATION GRAPHICS TECHNOLOGY
(INSTITUTIONAL CERTIFICATE) (SEE MEDIA TECHNOLOGIES CERTIFICATES)

COMPUTER AIDED MANUFACTURING
(INSTITUTIONAL CERTIFICATE)

The Computer Aided Manufacturing certificate program will provide the basic programming setup and operation skills needed to run state-of-the-art CNC machine tools. Emphasis is placed on manual data input and computer-assisted programming methods as they relate to three-axis CNC milling, four-axis EDM wire machining, two-axis CNC tuning, and inspection using both manual and automated coordinate measuring machines. Courses required for this certificate may be applied toward an associate’s degree. High school graduate reading and writing skills are expected, as development of technical reports, use of technical manuals and interpretation of codes are required in these courses. Math skills must include algebra, basic trigonometry and geometry.

Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
CID 1100 Fundamentals of Technical Drawing W/Lab....................3
ENGT 1000 Engineering Technology Applications
& Communications* ............................................................4
MET 1020 Shop Practices** ...................................................4

Core Courses
MET 2310 Geometrics & Coordinate Measuring .......................4
MET 2700 CNC Milling* .......................................................4

Advanced Track Courses I
MET 2720 CNC Turning..........................................................4

Advanced Track Courses II
MET 2740 Advanced CNC Machining ......................................2

TOTAL HOURS REQUIRED: 21-25

* The corequisites for ENGT 1000 and MET 2700 are not required for certificate students.

** MET 1020 may be waived at the discretion of the program coordinator with demonstrated competence.
COMPUTER INTEGRATED DRAFTING & DESIGN
(INSTITUTIONAL CERTIFICATE)

This program provides the skills required to operate current, professional-level drafting software to generate quality graphics to professional standards and incorporate the computer in the documentation process. This includes creating three-dimensional computer models and database manipulations and incorporating files from other computer applications into the graphic documents. There are four options for the certificate. The architectural option focuses on architectural drafting using AutoCAD, Architectural Desktop and Microstation. The AutoCAD option covers element creation, modification and manipulation of tools, 3D models, Paperspace/Modelspace, and printing using other specialized AutoCAD software. The mechanical option covers entry-level mechanical drafting/modeling and a substantial amount of 3D operations. The Microstation option covers 2D and 3D elements, manipulations, dimensioning, levels, reference files and printing using Microstation software. High school graduate reading and writing skills are expected, as development of technical reports, use of technical manuals, and interpretation of codes are required in these courses. Math skills must include algebra, geometry and basic trigonometry. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Architectural Option

Foundation Courses
CET 1010 Construction Methods or 3
CID 1022 Construction Materials W/Lab..........................4
CID 1100 Fundamentals of Technical Drawing W/Lab*................3
CID 1105 Engineering Drawing W/Lab*..........................4

Core Courses
CID 1210 Architectural Drawing W/Lab..........................4

Advanced Track Courses
CID 2115 Architectural Desktop W/Lab..........................3
CID 2175 Architectural Detailing W/Lab or 3
CID 2195 Civil Drawing W/Lab ........................................3

TOTAL HOURS REQUIRED: 14-21

AutoCAD Option

Foundation Courses
CID 1100 Fundamentals of Technical Drawing W/Lab*...............3
CID 1105 Engineering Drawing W/Lab*..........................4

Core Courses
CID 1210 Architectural Drawing W/Lab................................4
CID 2155 Advanced AutoCAD I W/Lab..........................3

Advanced Track Courses
CID 2115 Architectural Desktop W/Lab..........................3
CID 2255 Advanced AutoCAD II W/Lab..........................3

TOTAL HOURS REQUIRED: 13-20
### Mechanical Option

#### Foundation Courses
- CID 1100 Fundamentals of Technical Drawing W/Lab* .........................3
- CID 1105 Engineering Drawing W/Lab* .................................................4
- MET 1012 Materials & Manufacturing Processes
  or MET 1020 Shop Practices .................................................................4

#### Core Courses
- CID 1220 Advanced Mechanical Drawing W/Lab ..................................4
- CID 2155 Advanced AutoCAD I W/Lab .................................................3

#### Advanced Track Courses
- CID 2235 Parametric Modeling W/Lab
  or CID 2255 Advanced AutoCAD II W/Lab ........................................3

**TOTAL HOURS REQUIRED:** 14-21

### Microstation Option

#### Foundation Courses
- CID 1100 Fundamentals of Technical Drawing W/Lab* .........................3
- CID 1105 Engineering Drawing W/Lab* .................................................4

#### Core Courses
- CID 1220 Advanced Mechanical Drawing W/Lab ..................................4

#### Advanced Track Courses
- CID 2175 Architectural Detailing W/Lab** ............................................3
- CID 2195 Civil Drawing W/Lab** ...........................................................3

**TOTAL HOURS REQUIRED:** 10-17

* CID 1100 and 1105 may be waives at the discretion of the program coordinator with demonstrated competence.

** The prerequisite for CID 2175 and CID 2195 is not required for certificate students.

### COST ACCOUNTING (INSTITUTIONAL CERTIFICATE)

The Cost Accounting certificate program is designed to prepare students for an accounting position in a manufacturing company or to enhance skills for their current jobs. The foundation includes basic accounting principles. Advanced cost accounting concepts are then introduced to help students understand the procedures used to account for manufacturing costs. Students will also improve their computer skills in the Excel course. **Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.**

#### Foundation Courses
- ACC 2000 Principles of Accounting I .......................................................3
- OST 2621 Excel* .......................................................................................3

#### Core Courses
- ACC 2030 Principles of Accounting II ......................................................3

#### Advanced-Track Courses
- ACC 2360 Cost Accounting .......................................................................3

**TOTAL HOURS REQUIRED:** 12

* The prerequisite for OST 2621 is not required for certificate students.
**CREDIT UNION MANAGEMENT (INSTITUTIONAL CERTIFICATE)**

This certificate program is designed for professionals employed by the credit union industry. Coursework consists of the nationally recognized Certified Credit Union Executive (CCUE) program. People who successfully complete the program and pass the National CCUE exams will also receive the CCUE designation. Coursework is also American Council on Education (ACE) accredited.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUE 1080</td>
<td>Credit Union Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CUE 2000</td>
<td>History &amp; Philosophy of Credit Unions</td>
<td>2</td>
</tr>
<tr>
<td>CUE 2050</td>
<td>Credit &amp; Collections</td>
<td>3</td>
</tr>
<tr>
<td>CUE 2100</td>
<td>Credit Union Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>CUE 2150</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>CUE 2200</td>
<td>Credit Union Management</td>
<td>2</td>
</tr>
<tr>
<td>CUE 2230</td>
<td>Strategic Business Management &amp; Leadership</td>
<td>3</td>
</tr>
<tr>
<td>CUE 2250</td>
<td>Risk Management &amp; Insurance</td>
<td>3</td>
</tr>
<tr>
<td>CUE 2300</td>
<td>Financial Counseling</td>
<td>2</td>
</tr>
<tr>
<td>CUE 2310</td>
<td>Economics &amp; the Monetary System</td>
<td>3</td>
</tr>
<tr>
<td>CUE 2350</td>
<td>Money &amp; Banking</td>
<td>3</td>
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<tr>
<td>CUE 2400</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>CUE 2450</td>
<td>Financial Management I</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL HOURS REQUIRED: 15**

**CUSTOMER RELATIONSHIP MANAGEMENT (INSTITUTIONAL CERTIFICATE)**

The Customer Relationship Management certificate program is designed to enhance knowledge and skills applicable to the evolving marketing environment and the development of customer loyalty in the 21st century. The courses explore prevailing marketing strategies, strengthen customer service and customer care center communication skills, improve information acquisition and analysis expertise, and enhance understanding of customer behavior. Completion of the required certificate courses can be applied to the E-Commerce/Marketing A.A.S. degree. **Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.**

**Foundation Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MKT 2200</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 2420</td>
<td>Customer Service</td>
<td>3</td>
</tr>
</tbody>
</table>

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 2260</td>
<td>Marketing Information*</td>
<td>3</td>
</tr>
<tr>
<td>MKT 2350</td>
<td>Customer Behavior</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL HOURS REQUIRED: 12**

* The prerequisite for MKT 2260 may be waived at the discretion of the lead teacher for certificate students.
E-COMMERCE (INSTITUTIONAL CERTIFICATE)

The E-Commerce certificate program provides an overview of e-commerce and Web page design for use in marketing. This certificate is designed for working professionals who need an update on how the processes of selling and buying goods online impacts marketing efforts. Basics of Web design and an overview of the structure of the Internet (and how to access information thereon) are covered as well. **Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.**

**Foundation Courses**
- MKT 2200 Principles of Marketing ...........................................................3
- MKT 2450 E-Commerce .................................................................3
- OST 1100 Keyboarding* ............................................................3
- OST 1211 Word/Excel/PowerPoint .........................................................3

**Core Courses**
- OST 2801 Web Design I—HTML Coding ......................................................1
- OST 2802 Web Design II—Graphics ............................................................1
- OST 2803 Web Design III—Site Building ......................................................1

**TOTAL HOURS REQUIRED: 12-15**

* May be waived if student types 28 wpm.

ELECTRONICS TECHNICIAN (INSTITUTIONAL CERTIFICATE)

The Electronics Technician certificate program provides upgrading of skills for those presently in the electronics and computer related fields or basic skills for those who want to enter these fields. The certificate is based on the skills required of an electronics technician including soldering, electronic devices, electronic repair and troubleshooting, microcomputer programming and troubleshooting, and computer repair. Students are encouraged to pursue A+ certification or CET certification upon completion of this program. High school graduate reading and writing skills are expected, as development of technical reports and use of technical manuals are required in these courses. Math skills should include practical knowledge of algebra, basic trigonometry and geometry. All courses may be applied toward the associate’s degree in EET. **Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.**

**Foundation Courses**
- EET 1001 Introduction to EET .................................................................1
- EET 1012 Electrical Circuits I W/Lab* ......................................................3
- EET 1310 Digital Fundamentals W/Lab ......................................................4

**Core Courses**
- EET 1210 Active Devices I W/Lab ............................................................4
- EET 2715 Microcomputer Architecture ......................................................4

**Advanced Track Courses**
- EET 2220 Active Devices II W/Lab ............................................................4

**TOTAL HOURS REQUIRED: 20**

* The corequisite for EET 1012 is not required for certificate students.
FOOD & BEVERAGE SERVICE (INSTITUTIONAL CERTIFICATE)

The Food and Beverage Service certificate provides students with the primary skills to understand the managerial principles and operations of all types of food service facilities. Areas of interest include an introduction to the opportunities in the industry as well as the management of such firms. Special emphasis is placed on restaurant operations, facilities operations, cost controls and institutional food production. Completion of the required certificate courses can be applied to the Hospitality A.A.S. degree. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
HSP 1200 Introduction to Hospitality I ....................................................3
HSP 1300 Facilities Operation & Maintenance .......................................3

Core Courses
HSP 2050 Cost Control .............................................................................3
HSP 2200 Introduction to Hospitality II ...................................................3
HSP 2300 Food & Beverage Operations ..................................................3

Advanced Track Courses
HSP 2320 Quantity Food Production ........................................................3

TOTAL HOURS REQUIRED: 18

GEOGRAPHIC INFORMATION SYSTEMS/BUSINESS (INSTITUTIONAL CERTIFICATE)

The GIS/Business certificate program is designed to prepare business professionals to use geographic information systems (GIS) technology in business applications such as site selection, demographics, customer tracking, logistics and other location-based services. In addition, the program can improve skills of individuals in managerial positions who would like to learn about new opportunities in the application of this technology. Basic computer use knowledge and math and reading skills at the college level are required. Completion of the required certificate courses can be applied to the Geographic Information Systems A.A.S. degree. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses (Complete all courses)
GIS 1010 Fundamentals of GIS ...............................................................3
GIS 1120 Desktop GIS Software Tools ...................................................3

Core Courses (Complete all courses)
GIS 1110 Intro to GIS Database Management .......................................3
GIS 1600 Business Geographics ............................................................3
GIS 2600 Location Based Services* .........................................................3

Advanced Track Courses (Select two courses)
GIS 1030 GIS Data Sources & Quality ..................................................3
GIS 2030 Planning & Executing Projects ...............................................3
GIS 2120 Image & Raster GIS Analysis ..................................................3
GIS 2410 GIS Web Applications ............................................................3
GIS 2510 GIS Software Systems ............................................................3
GEOGRAPHIC INFORMATION SYSTEMS/TECHNICAL
(INSTITUTIONAL CERTIFICATE)

The GIS/Technical certificate program is designed to prepare technical professionals to use geographic information systems (GIS) technology in a variety of applications, such as mapping, emergency services, land development, local planning, utility services, facility management and education. Managers can learn about new opportunities in the application of this technology. Basic computer use knowledge and math and reading skills at the college level are required. Completion of the required certificate courses can be applied to the Geographic Information Systems A.A.S. degree. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses (Complete all courses)
GIS 1010 Fundamentals of GIS ...............................................................3
GIS 1120 Desktop GIS Software Tools ...................................................3

Core Courses (Complete all courses)
GIS 1020 Digital Images & Base Maps ...................................................3
GIS 1110 Intro to GIS Database Management ........................................3
GIS 1200 Global Positioning Technology ...............................................3

Advanced Track Courses (Select two courses)
GIS 1030 GIS Data Sources & Quality ...................................................3
GIS 2030 Planning & Executing Projects ................................................3
GIS 2120 Image & Raster GIS Analysis ...................................................3
GIS 2410 GIS Web Applications .............................................................3
GIS 2510 GIS Software Systems .............................................................3
GIS 2710 GIS Cartography ......................................................................3
GIS 2810 Special Topics in GIS ..............................................................3

TOTAL HOURS REQUIRED: 21

HIGH PERFORMANCE COMPUTING/SECURITY
(INSTITUTIONAL CERTIFICATE)

High performance computers such as PC clusters are a collection of interconnected computers working together as a single computing resource to accomplish tasks that otherwise would take a long period of time to complete. While many knowledgeable information systems professionals are aware of risks and threats to these networks, the available defensive tools and techniques are often a great mystery. This certificate targets network professionals in the computing field who would like to add security training to their skills when communicating between PC clusters. It helps these professionals understand the risks to modern networks and how to maintain network defenses. Completion of the required certificate courses can be applied to the High Performance Computing A.A.S. degree.
Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

**Foundation Courses**
- HPC 1010 HPC Internetworking Security .................................................4
- HPC 1020 HPC Internetworking & Grid Technology ..........................4

**Core Courses**
- HPC 2000 HPC Security Management ......................................................4
- HPC 2007 HPC Intrusion Detection & Countermeasures .........................4
- HPC 2010 HPC Security Applications & Technology ..............................4
- HPC 2020 Advanced HPC Internetworking & Grid Technology .............4

**TOTAL HOURS REQUIRED:** 24

**INDUSTRIAL MAINTENANCE (INSTITUTIONAL CERTIFICATE)**

The Industrial Maintenance certificate program will provide upgrading of skills for those presently in the manufacturing field or basic skills for those who want to enter the field. The certificate is based on preventive and predictive skills in the following areas: print reading, applied mathematics, hydraulics, pneumatics, power trains, mechanisms, electronics, and PLCs. Courses for this certificate may be applied toward an associate’s degree. High school graduate reading and writing skills are expected, as development of technical reports, use of technical manuals and interpretation of codes are required in these courses. Math skills should include practical knowledge of algebra, basic trigonometry and geometry. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

**Foundation Courses**
- EET 1012 Electrical Circuits I W/Lab* ....................................................3
- ENGT 1000 Engineering Technology Applications & Communications* ......................................................4
- MET 1020 Shop Practices** ......................................................................4
- MET 1060 Maintenance Printreading Applications W/Lab ......................3
- MET 2020 Fluid Mechanics & Power Applications*** ............................4

**Core Courses**
- EET 2920 Programmable Controllers .......................................................2
- MET 2030 Machine Elements W/Lab .........................................................3

**TOTAL HOURS REQUIRED:** 24-28

* The corequisites for EET 1012 and ENGT 1000 are not required for certificate students.

** MET 1020 may be waived at the discretion of the program coordinator with demonstrated competence.

*** The prerequisite for MET 2020 is not required for certificate students.
LEGAL SECRETARY (INSTITUTIONAL CERTIFICATE)

This certificate program would allow students to understand the legal terminology and to prepare legal documents in a law firm. The students in this program will take two law courses to familiarize them with legal office procedures. They will take a terminology/transcription class that will provide knowledge of the terms used in legal documents and be able to apply those terms when transcribing taped dictation. Formatting, punctuation, writing skills and proof-reading will be stressed. The OST and LAW courses taken for this certificate can be applied toward the respective associate’s degrees in those programs. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
LAW 1000 Introduction to Law & Ethics* ........................................3
LAW 1020 Law in Society or LAW 2210 Litigation Skills I ..................3
MKT 2420 Customer Service ............................................................3
OST 1005 Word ..............................................................................3
OST 1100 Keyboarding** ...............................................................3

Core Courses
OST 1105 Speed & Skillbuilding .......................................................3
OST 2700 Legal Terminology & Transcription ..................................3

TOTAL HOURS REQUIRED: 18-21

* The prerequisite/corequisite for LAW 1000 and LAW 2210 is not required for certificate students.

** May be waived if student types 28 wpm.

LINUX SYSTEM ADMINISTRATOR (INSTITUTIONAL CERTIFICATE)

The Linux System Administrator certificate program provides hands-on Linux system administration skills. The certificate is designed to prepare students for system administrator jobs and help working administrators to update their skills. The certificate program includes courses to provide basic and advanced system administration skills to install, configure, and maintain standalone and networked systems. Students are encouraged to pursue entry-level and advanced-level industrywide Linux certificates. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
CSIT 2410 Introduction to Linux ......................................................4

Core Courses
CSIT 2411 Linux System Administration ................................................4

Advanced Track Courses
CSIT 2475 Linux Advanced Systems
& Network Administration .........................................................4
CSIT 2476 Linux System Security Administration ..................................4

TOTAL HOURS REQUIRED: 16
LOCAL AREA NETWORK OPERATIONS/MANAGEMENT
(TECHNICAL CERTIFICATE)

The Local Area Network Operations/Management certificate program is designed to prepare an individual for a career in the operations and management of local area networks. Each course in this certificate also prepares the student for either a Microsoft or CompTIA certification examination. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

**Foundation Courses**
- NETW 1010 PC Hardware (A+ Certification) ................................. 4
- NETW 1020 PC Operating System Software (A+ Certification) ........ 4
- NETW 1100 Networking Fundamentals (Network+ Certification) ...... 4

**Core Courses**
- NETW 1200 Windows Professional ...................................................... 4

**Advanced Track Courses I**
- NETW 1210 Windows Server.................................................................. 4

**Advanced Track Courses II**
- NETW 1220 Administering Network Infrastructure ............................. 4

TOTAL HOURS REQUIRED: 24

LODGING (INSTITUTIONAL CERTIFICATE)

The Lodging certificate program provides students with the necessary knowledge and skills to work and professionally develop within the lodging industry. Program emphasis includes an introduction to the segments and opportunities within the industry, as well as facilities operations, cost control, and lodging management. Completion of the required certificate courses can be applied to the Hospitality A.A.S. degree. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

**Foundation Courses**
- HSP 1200 Introduction to Hospitality I .................................................... 3
- HSP 1300 Facilities Operation & Maintenance ....................................... 3

**Core Courses**
- HSP 2050 Cost Control .......................................................................... 3
- HSP 2200 Introduction to Hospitality II ................................................... 3
- HSP 2260 Hotel Operations ..................................................................... 3

**Advanced Track Courses**
- HSP 2320 Quantity Food Production ....................................................... 3

TOTAL HOURS REQUIRED: 18
MANUFACTURING AUTOMATION TECHNICIAN  
(INSTITUTIONAL CERTIFICATE)

The Manufacturing Automation Technician certificate program provides upgrading of skills for those presently employed in manufacturing as instrument and electrical technicians or basic skills for those who want to enter these fields. The certificate is based on the skills required to troubleshoot and maintain PLC and CNC control systems and Data Acquisition systems. High school graduate reading and writing skills are expected, as development of technical reports and use of technical manuals are required in these courses. Math skills should include practical knowledge of algebra, basic trigonometry and geometry. All courses may be applied toward the associate’s degree in EET and MET. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

**Foundation Courses**
- CID 1100 Fundamentals of Technical Drawing W/Lab..........................3
- EET 1012 Electrical Circuits I W/Lab* ..................................................3
- EET 2910 Data Acquisition & Control** .............................................2
- MET 1020 Shop Practices....................................................................4

**Core Courses**
- EET 2920 Programmable Controllers ...............................................2
- MET 2700 CNC Milling* .....................................................................4

TOTAL HOURS REQUIRED: 18

* The corequisites for EET 1012 and MET 2700 are not required for certificate students.

** The prerequisites for EET 2910 are not required for certificate students.

MECHANICAL & ELECTRICAL SYSTEMS DESIGN TECHNOLOGY  
(INSTITUTIONAL CERTIFICATE)

The Mechanical and Electrical Systems Design Technology certificate program provides the basic skills individuals need for a career in building mechanical and electrical systems design technology. Several of the courses may be applied toward an associate’s degree.

**Foundation Courses**
- CET 1010 Construction Methods.........................................................4
- CET 2010 Cost Estimating.................................................................3
- CET 2021 Project Scheduling W/Lab...............................................3
- CET 2312 Mechanical Systems I W/Lab...........................................3
- CET 2322 Mechanical Systems II W/Lab..........................................3

TOTAL HOURS REQUIRED: 16
MEDIA TECHNOLOGIES

The Media Technologies certificates are designed for the professional to complement a degree program in another media field, such as Communication Graphics Technology, Photography, Video Production Technology or Web Technology. They are also designed for those professionals who need to add a new skill set or update skills where industry standards may have changed. Media Technologies certificates are not designed to replace a degree but rather to enhance one.

Communication Graphics Technology (INSTITUTIONAL CERTIFICATE)

The Communication Graphics Technology certificate program is targeted toward degreed individuals, visual communications professionals, and current students in Media Technologies who wish to update or expand upon the technical skills needed for success within the field of graphic design and related industries. Throughout all required courses, emphasis is placed on developing proficiency with industry standard software. There are three options for the certificate: Graphic Design, Illustration and Web Visuals. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Graphic Design Option

Foundation Courses
CGT 1030 Introduction to Macintosh Graphic Design* ..................... 3

Core Courses
CGT 1040 Digital Photography* ......................................................... 3
CGT 1105 Digital Graphic Design I ..................................................... 4
CGT 1110 Typography ....................................................................... 3
CGT 1950 Design Fundamentals* ..................................................... 3

Advanced Track Courses
CGT 2005 Digital Graphic Design II .................................................. 4
CGT 2040 Computer Illustration ......................................................... 3
CGT 2140 Desktop Publishing .............................................................. 3

TOTAL HOURS REQUIRED: 17-26

Illustration Option

Foundation Courses
CGT 1030 Introduction to Macintosh Graphic Design* ..................... 3

Core Courses
CGT 1040 Digital Photography* ......................................................... 3
CGT 1105 Digital Graphic Design I ..................................................... 4
CGT 1110 Typography ....................................................................... 3
CGT 1950 Design Fundamentals* ..................................................... 3

Advanced Track Courses I
CGT 2040 Computer Illustration ......................................................... 3

Advanced Track Courses II
CGT 2045 Advanced Photoshop .......................................................... 3
CGT 2160 3D Modeling & Animation .................................................. 3
CGT 2240 Advanced Computer Illustration ........................................... 3

TOTAL HOURS REQUIRED: 19-28
Web Visuals Option

**Foundation Courses**
- CGT 1030 Introduction to Macintosh Graphic Design* ........................................ 3

**Core Courses**
- CGT 1040 Digital Photography* ................................................................. 3
- CGT 1105 Digital Graphic Design I .............................................................. 4
- CGT 1110 Typography .............................................................................. 3
- CGT 1950 Design Fundamentals* .............................................................. 3

**Advanced Track Courses**
- CGT 2040 Computer Illustration ............................................................... 3
- WEB 2000 Dreamweaver/Fireworks** ...................................................... 3
- WEB 2110 Flash** or WEB 2811 Advanced Computer Graphics** ...................... 3

**TOTAL HOURS REQUIRED: 16-25**

* CGT 1030, 1040 and 1950 may be waived at the discretion of the program coordinator with demonstrated competence.

** The prerequisites for the WEB courses are not required for certificate students.

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Photography (TECHNICAL CERTIFICATE)

The Photography Technical certificate program is designed for the media professional interested in adding photography skills. It is also a career option for someone interested in working as a photofinishing lab technician or digital imaging technician in the photographic support industry or in owning a photography-related business. The certificate is useful for someone who uses photography as part of his or her profession, such as in the medical industry or law enforcement, but who needs additional photographic skills. All of the courses in the program are hands-on and practical and are taught by experienced professionals. **Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.**

**Foundation Courses (Complete all courses)**
- PHO 1000 Introduction to Photography .................................................... 3

**Core Courses (Complete all courses)**
- MDT 2100 Photoshop Essentials............................................................. 3
- PHO 1100 Advanced Photographic Techniques ........................................ 3
- PHO 2060 Advanced Digital Imaging Techniques ..................................... 3
- PHO 2850 Photography Portfolio ............................................................. 1

**Advanced Track Courses (Select two courses)**
- CGT 1030 Introduction to Macintosh Graphic Design ................................ 3
- MDT 2998 Media Technologies Internship .............................................. 3
- PHO 2100 Nature & Travel Photography .................................................. 3
- PHO 2200 Commercial Photography ...................................................... 3
- PHO 2300 Portrait Photography ............................................................ 3
- PHO 2400 Photojournalism .................................................................... 3
- PHO 2500 Wedding & Retail Photography .............................................. 3
- PHO 2700 Special Topics in Photography ................................................ 3
- PHO 2900 Photography Internship .......................................................... 3
- PHO 2950 Independent Photographic Projects ....................................... 3
- VPT 1045 Technical Video Production .................................................. 3

**TOTAL HOURS REQUIRED: 19**
Video Production Technology (INSTITUTIONAL CERTIFICATE)

This certificate program is designed for working professionals seeking to broaden or update their existing skills. It is also designed for students who want to complement their skills from a related degree program such as Communication Graphics Technology, Photography or Web Technology. There are two options for the certificate. The videographer option provides hands-on training in audio production and motion picture photography. The video editor option covers editing theory using linear and nonlinear systems with hands-on applications. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Videographer Option

### Foundation Courses
- VPT 1015 Sound Production ............................................ 3
- VPT 1050 Electronic Cinematography* ................................ 3
- VPT 1090 Campus Broadcast I........................................ 3

### Core Courses
- PHO 1100 Advanced Photographic Techniques* ............... 3
- PHO 2200 Commercial Photography or 3
- PHO 2300 Portrait Photography......................................... 3
- PHO 2400 Photojournalism* ............................................. 3

**TOTAL HOURS REQUIRED: 18**

* The prerequisites/corequisites for PHO 1100, 2200, 2300, 2400 and VPT 1050 are not required for certificate students.

Video Editor Option

### Foundation Courses
- VPT 1015 Sound Production ............................................ 3
- VPT 1030 Introduction to Desktop Video/Audio* ............... 3

### Core Courses
- VPT 1210 Video Editing.................................................... 4

### Advanced Track Courses
- VPT 2215 Advanced Editing............................................. 3
- CGT 2160 3D Modeling & Animation** or 3
- CID 2004 Animation W/Lab** .......................................... 3

**TOTAL HOURS REQUIRED: 13-16**

* VPT 1030 may be waived at the discretion of the program coordinator with demonstrated competence.

** The prerequisites for CGT 2160 and CID 2004 are not required for certificate students.
Web Technology—Master CIW Designer

(INSTITUTIONAL CERTIFICATE)

The Master CIW (Certified Internet Web Professional) Designer institutional certificate program targets professionals who develop and maintain Web sites using authoring and scripting languages, create content and digital media, and employ standards and technologies for both business-to-business and business-to-consumer e-commerce Web sites. Master CIW Designer certification can lead to a successful career as a Web designer, creative director, Web marketing/business specialist or art director. Candidates must pass three required CIW exams to become a master CIW designer.

The CIW logo identifies individuals as Internet professionals who have been certified by one of the most prestigious and fastest-growing programs in the industry. This certificate is delivered completely over the Internet, enabling individuals to have greater access and opportunity to fill information technology-based jobs. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

**Foundation Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB 2200</td>
<td>CIW Foundations</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2291</td>
<td>CIW Foundations Certification</td>
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</tbody>
</table>

**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB 2210</td>
<td>CIW Site Designer</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2220</td>
<td>CIW E-Commerce</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2292</td>
<td>CIW Site Designer Certification</td>
<td>1</td>
</tr>
<tr>
<td>WEB 2293</td>
<td>CIW E-Commerce Certification</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL HOURS REQUIRED:** 12

Web Technology—Master CIW Web Site Manager

(INSTITUTIONAL CERTIFICATE)

The Master CIW (Certified Internet Web Professional) Web Site Manager institutional certificate program is aimed at professionals who manage Web servers and maintain Web sites for small to large enterprises. Master CIW Web Site Manager certification can lead to a successful career as a Webmaster, intranet or extranet Web administrator or Internet project manager. The candidate must pass five required CIW exams to become a master CIW Web site manager. (The Perl exam is not required for the institutional certificate but is required for national CIW certification.)

The CIW logo identifies individuals as Internet professionals who have been certified by one of the most prestigious and fastest-growing programs in the industry. This certificate is delivered completely over the Internet, enabling individuals to have greater access and opportunity to fill information technology-based jobs. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

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</table>
Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIT 2665</td>
<td>Perl Programming*</td>
<td>4</td>
</tr>
<tr>
<td>WEB 2210</td>
<td>CIW Site Designer</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2292</td>
<td>CIW Site Designer Certification</td>
<td>1</td>
</tr>
<tr>
<td>WEB 2300</td>
<td>CIW JavaScript Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2391</td>
<td>CIW JavaScript Fundamentals Certification</td>
<td>1</td>
</tr>
<tr>
<td>WEB 2601</td>
<td>CIW Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2691</td>
<td>CIW Server Administration Certification</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL HOURS REQUIRED: 20

* The prerequisite for CSIT 2665 is not required for certificate students.

NOTE: The CIW Perl Programming Certification exam must be taken at a Prometric or Vue Testing Center if CIW Web Languages certification is desired.

Web Technology—Web Tools
(INSTITUTIONAL CERTIFICATE)

The Web Tools institutional certificate program is designed for students who wish to learn the Web authoring tools required by industry for use in the development of online content, including animations, graphics, movies, games and audio. HTML, graphics, Adobe Photoshop, Dreamweaver, Fireworks, Flash, Adobe Acrobat and audio/video for the Web are covered in this certificate course. Students walk away with the ability to design graphic-filled Web sites, use animation (in Flash movies), and understand how and when to add audio/video for the Web. Holding a Web Tools certification can give you the tool set for a successful career as a Web author or Internet/intranet designer.

This certificate is delivered completely over the Internet, enabling individuals to have greater access and opportunity to fill information technology-based jobs. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses

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<tr>
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<tr>
<th>Course</th>
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<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>MDT 2100</td>
<td>Photoshop Essentials</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2000</td>
<td>Dreamweaver/Fireworks</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2110</td>
<td>Flash</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2120</td>
<td>Audio/Video for the Web</td>
<td>3</td>
</tr>
<tr>
<td>WEB 2703</td>
<td>Adobe Acrobat</td>
<td>1</td>
</tr>
<tr>
<td>WEB 2811</td>
<td>Advanced Computer Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL HOURS REQUIRED: 20
MEDICAL INSURANCE CODING & REIMBURSEMENT  
(INSTITUTIONAL CERTIFICATE)

The Medical Insurance Coding and Reimbursement certificate program prepares individuals for employment in the area of medical insurance and health care claim processing. Classroom instruction includes use of CPT-4- and ICD-9-CM as well as the processing of medical insurance claims and medical billing procedures. Students completing the program may wish to take the professional certification exam offered through the American Academy of Professional Coders (AAPC) or the American Health Information Management Association (AHIMA). Graduates may apply credits earned through the certificate program toward an associate’s degree in Office Systems Technology – Health Care Office Administration. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
OST 1005  Word ..............................................................................3
OST 1100  Keyboarding* .................................................................3
OST 2910  Medical Terminology I.....................................................4

Core Courses
OST 1003  Excel I CBT .................................................................1
OST 2920  Medical Terminology II..................................................4

Advanced Track Courses
OST 2940  Medical Insurance Coding .............................................3
OST 2945  Insurance Billing & Coding** ..........................................3
OST 2950  Health Care Insurance Survey** .....................................3

TOTAL HOURS REQUIRED:  21-24

* May be waived if student types 28 wpm.
** The prerequisite for OST 2945 and 2950 may be taken simultaneously with
   OST 2945 and 2950 for certificate students.

MEDICAL TRANSCRIPTION  (INSTITUTIONAL CERTIFICATE)

The Medical Transcription certificate program prepares individuals to understand the language of science and medicine and to prepare accurate documentation in health information professions. Career opportunities exist in medical record transcription. This certificate will be beneficial to premedicine and other scientific careers, pharmaceutical and surgical supply company representatives, insurance adjusters, court reporters and other professionals requiring knowledge of medical terminology.

Some of the courses required for the certificate can also be applied toward the associate’s degree, should the student so desire. Students receiving this certificate should be able, after meeting necessary entrance requirements, to pass the AAMT National Certification Examinations and also qualify for membership in the American Health Information Management Association. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.
Foundation Courses
OST 1005  Word .................................................................3
OST 1100  Keyboarding* ....................................................3
OST 2910  Medical Terminology I .....................................4

Core Courses
OST 1105  Speed & Skillbuilding ......................................3
OST 2920  Medical Terminology II ....................................4
OST 2932  Medical Transcription Issues ...........................3

Advanced Track Courses
OST 2120  Document Design & Editing .............................3
OST 2935  Medical Transcription ........................................3

TOTAL HOURS REQUIRED: 23-26

* May be waived if student types 28 wpm.

MICROSOFT OFFICE SKILLS ENHANCEMENT
(INSTITUTIONAL CERTIFICATE)

The Microsoft Office Skills Enhancement certificate program provides students with employable skills using more advanced features of Word, Excel and PowerPoint. This certificate is beneficial to students wanting to learn these three popular applications for the first time and for those who want to explore the many capabilities of each program. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
OST 1100  Keyboarding* ....................................................3
OST 1211  Word/Excel/PowerPoint ....................................3

Core Courses
OST 1212  Document Management in Word ........................1
OST 1213  Special Effects with Excel ................................1
OST 1214  PowerPoint Presentation Enhancement ...............1

TOTAL HOURS REQUIRED: 6-9

* May be waived if student types 28 wpm.

MICROSOFT OFFICE SPECIALIST
(MOS) PREPARATION (INSTITUTIONAL CERTIFICATE)

The MOS program provides an industry-recognized standard for measuring an individual’s mastery of Microsoft Office applications. By passing one or more MOS program certification exams, users demonstrate proficiency in a given Microsoft Office application to current and potential employers.

The online certificates offered by Pellissippi State are designed to prepare students for these exams. The certificates can be grouped together as several 3-hour certificates or as one 17-hour certificate to meet the curriculum needs of the student.
Basic computer use knowledge is required, as well as high school graduate reading and writing skills. All courses except MGT 2000, MKT 2420, OST 1100, 2801, 2802, and 2803 require the Computer Based Training (CBT) application. The remaining courses are Web-based courses. Certificates delivered over the Web can be completed at home or work at any time.

**Entry-level standards:** Keyboard speed of 28 wpm or OST 1100 or equivalent; basic knowledge of the personal computer and its operation. **Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.**

### Comprehensive MOS Certificate

**Foundation Courses**
- MGT 2000 Principles of Management or
- MKT 2420 Customer Service
- OST 1001 Word I CBT
- OST 1003 Excel I CBT
- OST 1006 PowerPoint CBT
- OST 1007 Access I CBT
- OST 1010 Microsoft Outlook CBT
- OST 1100 Keyboarding

**Core Courses**
- OST 1002 Word II CBT
- OST 1004 Excel II CBT
- OST 1008 Access II CBT

**Advanced Track Courses**
- OST 2801 Web Design I—HTML Coding
- OST 2802 Web Design II—Graphics
- OST 2803 Web Design III—Site Building

**TOTAL HOURS REQUIRED:** 14-17

* May be waived if student types 28 wpm.

### MOS Applications Certificate—Core Level

**Foundation Courses**
- OST 1001 Word I CBT
- OST 1003 Excel I CBT
- OST 1006 PowerPoint CBT
- OST 1100 Keyboarding

**Core Courses**
- OST 1002 Word II CBT
- OST 1004 Excel II CBT

**TOTAL HOURS REQUIRED:** 5-8

### MOS Word Certificate—Core Level

**Foundation Courses**
- OST 1001 Word I CBT
- OST 1010 MS Outlook CBT
- OST 1100 Keyboarding

**Core Courses**
- OST 1002 Word II CBT

**TOTAL HOURS REQUIRED:** 3-6
## MOS Excel Certificate—Core Level

### Foundation Courses
- **OST 1003** Excel I CBT ................................................................. 1
- **OST 1010** MS Outlook CBT ......................................................... 1
- **OST 1100** Keyboarding* ............................................................... 3

### Core Courses
- **OST 1004** Excel II CBT ............................................................... 1

**TOTAL HOURS REQUIRED:** 3-6

* May be waived if student types 28 wpm.

## MOS Access Certificate—Core Level

### Foundation Courses
- **OST 1007** Access I CBT ............................................................. 1
- **OST 1010** MS Outlook CBT ......................................................... 1
- **OST 1100** Keyboarding* ............................................................... 3

### Core Courses
- **OST 1008** Access II CBT ............................................................ 1

**TOTAL HOURS REQUIRED:** 3-6

## PAYROLL/TAXATION ACCOUNTING (INSTITUTIONAL CERTIFICATE)

The Payroll/Taxation Accounting certificate program is designed to prepare students for jobs in individual tax preparation and payroll accounting. Students are introduced to accounting principles to prepare them for topics emphasizing individual taxation and payroll accounting as well as partnership and corporate tax laws. Students learn to process payroll checks and to prepare all tax forms related to payroll taxes. **Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.**

### Foundation Courses
- **ACC 2000** Principles of Accounting I ......................................... 3

### Core Courses
- **ACC 2410** Income Taxation ....................................................... 3
- **ACC 2500** Special Topics in Accounting ....................................... 3

**TOTAL HOURS REQUIRED:** 9

## PHOTOGRAPHY (TECHNICAL CERTIFICATE) (SEE MEDIA TECHNOLOGIES CERTIFICATES)

## PROJECT MANAGEMENT (INSTITUTIONAL CERTIFICATE)

The Project Management certificate program provides basic skills to plan, cost and control projects. Courses can also be applied to the Management A.A.S. degree. **Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.**

### Foundation Courses
- **MGT 2000** Principles of Management ......................................... 3
QUALITY CONTROL (INSTITUTIONAL CERTIFICATE)

The Quality Control certificate program will provide an individual with basic skills needed for process control, testing and analysis of product quality. Areas of emphasis include testing fundamentals, destructive testing, nondestructive testing, computer-assisted measuring and statistical process control (SPC). Associated lab exercises allow hands-on experience with testing equipment and measuring devices such as ultrasound, magnetic particle, dye penetrant, hardness, Charpy-Izod impact tests, tensile/compression tests, SPC data collection units and software, digital calipers, and coordinate measuring machines. Courses required for this certificate can be applied toward an associate’s degree. High school graduate reading and writing skills are expected, as development of technical reports, use of technical manuals and interpretation of codes are required in these courses. Math skills must include algebra, geometry and basic trigonometry. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>CID 1100</td>
<td>Fundamentals of Technical Drawing W/Lab.</td>
<td>3</td>
</tr>
<tr>
<td>ENGT 1000</td>
<td>Engineering Technology Applications &amp; Communications*</td>
<td>4</td>
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</tbody>
</table>

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MET 2310</td>
<td>Geometrics &amp; Coordinate Measuring*</td>
<td>4</td>
</tr>
<tr>
<td>MET 2800</td>
<td>Fundamentals of Testing*</td>
<td>3</td>
</tr>
<tr>
<td>MET 2810</td>
<td>Destructive &amp; Nondestructive Testing</td>
<td>3</td>
</tr>
<tr>
<td>MET 2820</td>
<td>Statistical Process Control*</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL HOURS REQUIRED: 21

* The prerequisites/corequisites for ENGT 1000, MET 2310, 2800 and 2820 are not required for certificate students.

REAL ESTATE (INSTITUTIONAL CERTIFICATE)

The real estate industry places great emphasis on education and professionalism. The Tennessee Real Estate Commission, through legislation, requires a prelicensing course and continuing education for practitioners. The certificate program in real estate is an effort to provide high-quality technical training for residents of Knoxville and surrounding counties. Candidates applying to TREC to take the Affiliate Broker Licensing Exam must complete 60 hours of classroom instruction in basic principles of real estate (covered in the courses listed below). After passing the Licensing exam, candidates must complete 30 hours of classroom instruction by taking the Affiliate Broker Sales Training course (BUS 618 listed below) before submitting their application for their license. All courses are approved by TREC. All appraisal courses are approved by the Tennessee Appraisal Commission.

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BUS 218</td>
<td>Affiliate Broker Sales Training</td>
<td>Non-credit</td>
</tr>
<tr>
<td>FIN 2450</td>
<td>Real Estate Principles &amp; Salesmanship</td>
<td>4</td>
</tr>
</tbody>
</table>
SUPERVISION (TECHNICAL CERTIFICATE)
Supervisors with solid, up-to-date management skills are critical for a business to be successful. This Certificate Program offers potential supervisors these necessary skills. In addition, the program helps experienced supervisors improve their managerial skills to realize their full potential as managers. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
- MGT 2000 Principles of Management .............................................3

Core Courses
- MGT 2030 Team Leadership ..........................................................3
- MGT 2050 Human Resources .........................................................3

TOTAL HOURS REQUIRED: 9

SURVEYING (INSTITUTIONAL CERTIFICATE)
The Surveying certificate program curriculum provides the basic skills needed to enter a career in surveying. Courses are offered at night and normally meet one or two nights each week during the semester.

- CET 0100 Introduction to Surveying* .............................................3
- CET 1212 Surveying Principles W/Lab ..........................................4
- CET 2212 Advanced Surveying Principles W/Lab ..........................4
- CET 2220 Site Planning & Development W/Lab ...............................3
- CET 2240 Legal Aspects of Surveying .............................................3

TOTAL HOURS REQUIRED: 17

* CET 0100 may be waived at the discretion of the program coordinator with demonstrated competence.

TRAVEL & TOURISM (INSTITUTIONAL CERTIFICATE)
The Travel and Tourism certificate program introduces students to the hospitality industry with particular emphasis on tourism, travel, and hospitality management. Program content emphasizes an understanding of the multifaceted segments of the industry and their respective interactions. Additional topics include travel planning and reservation procedures in conjunction with operational management and destination services. Completion of the required certificate courses can be applied to the Hospitality A.A.S. degree. Courses in each level (Foundation, Core, Advanced Track) must be completed prior to advancing to the next level. Where more than one course is offered within a level, courses may be taken in any sequence.

Foundation Courses
- HSP 1200 Introduction to Hospitality I .........................................3
- HSP 1300 Facilities Operation & Maintenance ..............................3
Core Courses
HSP 2050  Cost Control ................................................................. 3
HSP 2200  Introduction to Hospitality II .......................................... 3
HSP 2210  Travel/Tourism Administration ...................................... 3

Advanced Track Courses
HSP 2500  Travel Geography .......................................................... 3

TOTAL HOURS REQUIRED 18

VIDEO PRODUCTION TECHNOLOGY (INSTITUTIONAL CERTIFICATE)
(SEE MEDIA TECHNOLOGIES CERTIFICATES)

WEB TECHNOLOGY (INSTITUTIONAL CERTIFICATE)
(SEE MEDIA TECHNOLOGIES CERTIFICATES)

How to Apply for Technical & Institutional Certificates

Students planning to complete certificate requirements must complete and submit the Application for Certificate prior to the semester that they intend to complete the certificate. Students planning to complete the certificate requirements in the same semester must submit an Application for Certificate within 14 days of the first day of classes. Forms may be obtained in Admissions and Records or in the Business and Community Services Office on the Pellissippi Campus or the Business/Records Office at the off-site campuses. Certificate applicants are exempt from paying the graduation fee and from taking the CBASE exit exam. As soon as grades are posted and the completed certificates are received, they will be mailed to the student.
Course Descriptions

In This Section:
- General Information
- Course Descriptions
GENERAL INFORMATION

Developmental Studies Prerequisites. Enrollment in most college-level courses requires completion of developmental studies (DSP) coursework or qualifying placement test scores. Students who have tested into DSP courses should check the DSP placement chart in the Academic Information and Services section of the Catalog to determine eligibility for college-level courses.

Term Designations. Term designations appearing after each course description refer to the semester(s) that the course is generally offered. The “On Demand” designation is used when the course is scheduled irregularly. Scheduling of classes depends on sufficient enrollment.

TBR Designations. Courses denoted with the ♦ symbol represent transferable courses within the TBR system. Every TBR institution incorporates a common 41-hour core curriculum into its degree requirements and accepts all courses designated with the ♦ symbol as meeting these requirements at other TBR institutions. A complete matrix of courses that satisfy the minimum degree requirements at all TBR institutions is available on the TBR Web page (www.tbr.state.tn.us).

University of Tennessee Designations. Courses denoted with the ★ symbol represent Pellissippi State courses that receive direct course equivalency at the University of Tennessee, Knoxville.
COURSE DESCRIPTIONS

ACCOUNTING

★ACC 2000 Principles of Accounting I 3 Credits
A survey of financial and managerial accounting. Financial accounting topics include structure of financial statements and accounting for merchandising operations, cash, receivables, inventories, plant and equipment, liabilities, and equity. Managerial accounting topics include analysis of financial statements, introduction to managerial accounting, cost behavior and CVP analysis and budgeting. Spring and Fall Corequisite(s): College-level math

★ACC 2030 Principles of Accounting II 3 Credits
A continuation of the study of financial and managerial accounting theory and practice, including analyzing and recording business transactions, completing the accounting cycle, and analyzing and preparing financial statements. Accounting for liabilities, equity and payroll as well as measuring cash flow, cost accounting systems, special analysis and budgeting are taught in the course. Spring and Fall Prerequisite(s): ACC 2000

ACC 2215 Intermediate Accounting I 3 Credits
A study of financial accounting theory and practice, including financial statement presentation and the accounting cycle, current asset measurement and valuation, fixed asset acquisition, depreciation, depletion, disposition, and measurement and valuation of intangible assets. Fall Prerequisite(s): ACC 2030

ACC 2220 Intermediate Accounting II 3 Credits
A continuation of the study of financial accounting theory and practice, including liabilities and stockholders’ equity, cash flow measurement and reporting, issues related to income measurement, and the preparation and analysis of financial statements. Spring Prerequisite(s): ACC 2215 or consent of instructor

ACC 2360 Cost Accounting 3 Credits
A study of cost accounting terminology and concepts. Includes job order costing, process costing and standard costing; also includes accounting for overhead and joint processing costs, as well as absorption and variable costing. Fall Prerequisite(s): ACC 2030

ACC 2410 Income Taxation 3 Credits
A study of federal income taxation as applied to personal income. Topics include income inclusions and exclusions, adjustments, deductions, taxes, and credits. Practice in income tax return preparation. Spring Prerequisite(s): ACC 2000

ACC 2500 Special Topics in Accounting 3 Credits
A study of selected accounting topics including payroll tax accounting, partnership and corporation taxation, financial statement analysis and financial statement presentation techniques. Fall Prerequisite(s): ACC 2000

ACC 2530 Accounting Systems 3 Credits
A study of the flow of documents and information from initial transaction to financial statement preparation. Emphasis is on computer software applications using general ledger software. Topics include internal control, general ledger, accounts receivable, accounts payable, payroll and job order costing. Spring Prerequisite(s): ACC 2030

ACC 2571 Computer Accounting Internship 3 Credits
This course is a supervised work experience requiring a minimum of 135 hours in the accounting field. Individual conferences are arranged instead of class attendance. On Demand Prerequisite(s): Completion of 15 hours of ACC courses with minimum 2.5 GPA in ACC courses; seeking an A.A.S. degree as a Computer Accounting major; and a completed internship application submitted to the Coordinator of BCT Internships prior to enrollment in the course and the beginning of the term. Application is available on the Web: www.pstcc.edu/departments/bctpi.
ADVERTISING

★ADV 2500 Advertising & Promotion 3 Credits
A study of advertising principles applied to marketing and organizational situations. Includes study of the communication process, consumer behavior, market segmentation, creative strategy and media. Spring and Fall

AMERICAN SIGN LANGUAGE

ASL 1010 Beginning American Sign Language I 3 Credits
An introductory study of the language that deaf adults in America use among themselves. This course includes an introduction to the deaf culture and to the basic structure of its language, as well as the mastery of finger spelling and 400 signs. Spring and Fall Prerequisite(s): ASL 1010

ASL 1020 Beginning American Sign Language II 3 Credits
A continuation of the study of the language of the American deaf. This course includes further study of the structure of the language and the mastery of an additional 400 signs. Spring and Fall Prerequisite(s): ASL 1010

ASL 2010 Intermediate American Sign Language I 3 Credits
A course that provides in-depth experience in conversing in American sign language, as well as the mastery of 100 widely used American sign language idioms. Spring and Fall Prerequisite(s): ASL 1020

ASL 2020 Intermediate American Sign Language II 3 Credits
A course that involves conversational practice, experience in signing music and the mastery of 100 additional American sign language idioms. On Demand Prerequisite(s): ASL 2010

ANTHROPOLOGY

★ANT 1100 Physical Anthropology 3 Credits
Focuses on the range of human genetic variation and adaptation that is demonstrated in living populations today, comparisons of biology and behavior between human and non-human primates and an examination of our human prehistory as it is outlined in the fossil record. Spring and Fall

★ANT 1200 Prehistoric Archaeology 3 Credits
Introduction to methods, theory, and techniques used to analyze and date archaeological cultures, past life ways, and cultural evolution. On Demand

◆★ANT 1300 Cultural Anthropology 3 Credits
An introduction to the field of cultural anthropology focusing on the description and analysis of geographically diverse social groups and their learned traditions. Culture consists of the abstract values, beliefs and impressions of the world that lie behind behavior and upon which the attitudes and ideals of a society reflect. Spring and Fall

★ANT 2100 Biological Anthropology 3 Credits
An introduction to human biological variation as a result of evolutionary processes. Examples based upon contemporary, historic, and prehistoric populations are used to introduce anthropological methods for the analysis of variation using living persons, genetic material, and skeletal remains. On Demand Prerequisite(s): ANT 1100 or consent of instructor
ART

ART 1011  Drawing I  3 Credits
Fundamental aspects of drawing, including line, tone, space, form, and composition utilizing a variety of media. Emphasis placed on development of observational skills and perception of reality. Spring and Fall

ART 1031  Three-Dimensional Media  3 Credits
Fundamental aspects of three-dimensional design utilizing projects that deal with real space and a variety of three-dimensional materials. Spring and Fall

ART 1110  2-D Design  3 Credits
A fundamental exploration of the elements of two-dimensional art (line, shape, texture, value, and color) and their relationship to the principles of design (balance, rhythm, variety, and unity). Stress is placed on visual thinking through the use of problem-solving structures. On Demand

ART 1610  Basic Printmaking  3 Credits
An introductory survey of printmaking focusing on the basic fundamentals and techniques in relief printing, monoprints and collographs. On Demand

◆ART 1720  Western Art I  3 Credits
Major movements in Western art, with emphasis on Europe from prehistory through the Middle Ages. Course provides an overview of the predominant artistic/architectural/cultural movements from the Paleolithic to Early Christian/Byzantine period, including Mesopotamia, Egypt, the Aegean, Greece, the Etruscans and Rome. Spring and Fall

◆ART 1730  Western Art II  3 Credits
Major movements in Western art, with emphasis on Europe from the 14th through the 17th century. The course provides an overview of the predominant artists, aesthetic intent, and techniques encountered in the Late Gothic (Proto-Renaissance), Early and High Renaissance, Mannerism, and the Baroque periods. Spring and Fall

ART 2110  Intermediate Drawing  3 Credits
A continuation of the fundamental concepts of drawing with emphasis on composition, techniques and content. Spring Prerequisite(s): ART 1011

ART 2120  Life Drawing  3 Credits
Continued development of drawing and observational skills with a concentration on the structure and dynamics of the human form; perception of the figure in conceptual and expressive contexts. Fall Prerequisite(s): ART 2110 or consent of instructor for art majors; no prerequisite for non-art majors

ART 2130  Painting  3 Credits
Capacities of oil and acrylic painting on canvas. Spring and Fall Prerequisite(s): ART 1011 and 2950 for art majors; no prerequisite for non-art majors

ART 2140  Painting II  3 Credits
Continued exploration of the capacities of oil and acrylic painting on canvas. May be repeated. Maximum of 6 hours. Spring and Fall Prerequisite(s): ART 2130 for art majors; no prerequisite for non-art majors

ART 2210  Ceramics I  3 Credits
Hand-building techniques, including forming methods, glazing, clay preparation, and firing small and large-scale pieces. Spring and Fall

ART 2220  Ceramics II  3 Credits
Thrown ceramic forms, including functional pottery techniques, glazing and firing methods. Spring and Fall

ART 2410  Sculpture  3 Credits
Problems that explore basic materials and techniques, including clay modeling, plaster construction and mold making. Fall Prerequisite(s): ART 1031 for art majors; no prerequisite for non-art majors

ART 2420  Life Sculpture  3 Credits
Modeling techniques in clay and wax working from the figure. Possibilities of expression with the human figure as subject. Modeling process encompasses both observational and material handling techniques. *Spring Prerequisite(s): ART 1031 for art majors; no prerequisite for non-art majors*

**ART 2620**  
*Intaglio Printmaking*  
3 Credits  
Metal plate intaglio printing in traditional and contemporary techniques of etching; softground, drypoint, mezzotint, aquatint, open bite process and collograph plate construction. May be repeated. Maximum 6 hours. *Fall Prerequisite(s): ART 1011 for art majors; no prerequisite for non-art majors*

**ART 2950**  
*Intermediate Design & Color*  
3 Credits  
Exploration of the basic principles and concepts of composition in correlation with the elements of design. Emphasis will be placed on color theory, techniques and individual approaches to problem solving. *Spring and Fall*

### BANKING

**BKG 2005**  
*Accounting for Bankers*  
3 Credits  
A study of financial accounting theory and practice. Emphasis is placed on analyzing preparing and reporting financial information. *On Demand*

**BKG 2020**  
*Principles of Banking*  
2 Credits  
A study of the language and documents of banking, check processing, teller functions, deposit functions, trust services, bank loans and investments. *On Demand*

**BKG 2060**  
*Marketing for Banking*  
2 Credits  
A study of marketing principles and their practical application in the banking industry. *On Demand*

**BKG 2100**  
*Analyzing Financial Statements*  
2 Credits  
A study of financial statement analysis. Topics include generation of statement data and limitations of the accounting information provided, business funds flow and analysis tools and techniques. *On Demand*

**BKG 2150**  
*Introduction to Commercial Lending*  
2 Credits  
An overview of the commercial lending function. Topics include the commercial loan customer, types of commercial loans, the loan decision process, cost analysis, control and profitability and the regulatory and legal environments. *On Demand*

**BKG 2200**  
*Consumer Lending*  
2 Credits  
An overview of the role of consumer credit in overall bank operations. Topics include credit risk evaluation, policy, loan processing, servicing and collecting loans, compliance and portfolio management. *On Demand*

**BKG 2240**  
*Deposit Operation*  
2 Credits  
Focuses on how banks operate in the context of the U.S. payments mechanism. The deposit-taking activities of banks, their management of deposited funds, and the competitive and regulatory environments in which banks operate are the central subjects of the text. *On Demand*

**BKG 2250**  
*Money & Banking*  
3 Credits  
A study of money and the world of banking that it creates and through which it flows. Topics include the tools of monetary and fiscal policy, the impact of monetary policy on the banking system, monetary theory and international banking. *On Demand*

**BKG 2300**  
*Law & Banking*  
2 Credits  
A study of law and legal issues, with special emphasis on the Uniform Commercial Code. Topics include contracts, real estate and bankruptcy. *On Demand*

**BKG 2310**  
*Law & Banking Applications*  
2 Credits  
Introduction to laws pertaining to secured transactions, letters of credit and the bank collection process. Laws covering collateral, perfection and default will also be covered. *On Demand*
BKG 2350 Trust Business 3 Credits
A study of trust management. Topics include the trust department, trust investments, tax administration, and real estate administration. On Demand

BKG 2400 Commercial Bank Management 3 Credits
An introduction to daily bank activities, including formulation of objectives and policies, management of assets and liabilities, sources and uses of funds, and the administration of deposits, loans, and other investments. On Demand

BKG 2420 Introduction to Mortgage Lending 2 Credits
This course covers construction and permanent financing for residential property; real estate law; documentation; mortgage loan servicing; the secondary mortgage market; the role of government in mortgage lending; and residential real estate as an investment. The discussion of underwriting, processing and servicing will give participants a framework for learning the mortgage lending business and refining their existing knowledge. Additionally, the coverage of laws and regulations affecting mortgage lending provide an understanding of mortgage lending’s history and a glimpse into its future. On Demand

BKG 2450 Supervision 3 Credits
A study of principles of management, including planning, organizing, staffing, directing and controlling. On Demand

BKG 2600 Bank Investments & Funds Management 2 Credits
A study of banking investment and funds management strategies that earn an acceptable return without undue risk. On Demand

BKG 2700 Financial Planning 2 Credits
An overview of the financial planning process and its application. On Demand

BIOLOGY

BIOL 1000 Special Topics in Biology 4 Credits
Study and discussion of a selected topic in biology. Content will vary, as this course is a means for classes to explore certain biology-related topics in depth. Classes may be taught by visiting professors. May be repeated for credit when a different topic is taught. On Demand Prerequisite(s): Consent of instructor

◆★BIOL 1110 General Biology I 4 Credits
Chemical basis of life; cell structure and function, including energy metabolism; cell division; DNA and gene regulation; Mendelian and molecular genetics; evolution. Course includes 3 hours of lecture and 2 hours of laboratory applications each week. Spring and Fall

◆★BIOL 1120 General Biology II 4 Credits
Plant and animal anatomy (tissues, organs and organ systems), physiology, reproduction, and growth; microorganisms; fungi; ecology. Course includes three hours of lecture and two hours of laboratory applications each week. Spring and Fall

◆BIOL 1310 Concepts of Biology 3 Credits
A survey of biology concepts and content as applicable to the Tennessee K-8 curriculum standards and the National Science Foundation Standards. Instructional topics include scientific method, cell structure and function, food production and energy for life, heredity and reproduction, diversity and adaptation among living things, interactions between living things and their environment, and biological change. Students will design, develop, and implement hands-on science activities for K-8 students; create and develop a course portfolio; and collect and evaluate biologically related resources. Course includes two hours of lecture and three hours of laboratory applications each week. This course will only count toward the education program at Tennessee Technological University and Lincoln Memorial University. Spring and Fall
BIOL 2000  Independent Scientific Investigation  2 Credits
Independent laboratory, library or field research in biology under the supervision of a consenting faculty member. Designed to develop an interest in biology and the application of techniques of scientific research. Students may accumulate up to 6 credit hours; a minimum of four hours of research is required each week. Intended as elective credit and may not be applied toward general education requirements. On Demand

◆◆BIOL 2010  Human Anatomy & Physiology I  4 Credits
A study of basic biological chemistry, cellular structure and function (including cellular respiration, protein synthesis, and cell division); histology; and integumentary, skeletal, and nervous systems. Course includes three hours of lecture and laboratory applications each week. Spring and Fall

◆◆BIOL 2020  Human Anatomy & Physiology II  4 Credits
A study of the anatomy and physiology of blood and the circulatory, immune, respiratory, digestive, excretory, endocrine, and reproductive systems. Course includes three hours of lecture and laboratory applications each week. Spring and Fall Prerequisite(s): BIOL 2010

BIOL 2021  Careers in Biology  2 Credits
This course is an exploration of prospective careers for biology-related majors. Students will be required to shadow professionals in several different career fields and give in-class presentations of their experiences. Students will also practice interviewing, writing essays for application to graduate and professional schools, and writing resumes and cover letters. On Demand Prerequisite(s): ENGL 1010 and 1020 Corequisite(s): High school advanced placement biology or BIOL 1110 or 1120 or 2010 or 2020; exceptional high school students may be admitted upon their teachers’ recommendations

◆◆BIOL 2040  General Ecology  4 Credits
Relationships between organisms and their environment, including human environmental problems. Four hours of lecture, with announced field trips. Spring and Fall

BIOL 2050  Human Physiology  4 Credits
A study of the homeostatic mechanisms in the human body as they pertain to normal physiology and mechanisms of disease. The laboratory provides students an opportunity to learn by measuring many of the vital physiological processes. Course includes three hours of lecture and laboratory applications each week. On Demand

◆◆BIOL 2110  Cell Biology  4 Credits
This course is a study of basic biomolecules, cell structure and function, cellular respiration and photosynthesis, molecular genetics, cellular communication, cancer, and evolution of the cell. The course includes 3 hours of lecture and 3 hours of laboratory per week. Spring Prerequisite(s): BIOL 1110 and 1120 and CHEM 1110 and 1120; or two years of high school biology and ACT natural science score of 26 or higher; or consent of instructor

◆◆BIOL 2120  General Genetics  4 Credits
Mendelian genetics, chromosomal inheritance, modified Mendelian ratios, chromosome mapping, linkage, gene and chromosomal mutations, recombination, gene expression, recombinant DNA technology, transposable elements, extranuclear genome, population genetics, and quantitative genetics. Course includes three hours of lecture and three hours of laboratory applications each week. Fall Prerequisite(s): BIOL 1110 and 1120, or two years of high school biology; and CHEM 1110 and 1120, or consent of instructor

◆◆BIOL 2130  Microbiology  4 Credits
An introductory course in microbiology dealing with bacteria, fungi, yeast, and viruses to include discussions of cell structure, identification, taxonomy, metabolism, genetics, resistance, infection, disease, and immunity. Course includes three hours of lecture and four hours of laboratory applications each week. Spring and Fall

BIOL 2210  Pathophysiology  2 Credits
An introduction to the disease processes and mechanisms of the human body and to the dysfunction of the body’s systems. Spring
BIOL 2400  Principles of Nutrition  3 Credits
Human nutrition for the lifespan, including biochemistry of body nutrients, health and disease, government and scientific guidelines. Spring and Fall Prerequisite(s): BIOL 2010 or CHEM 1010

★BIOL 2410  Anatomy for Radiological Technologists  4 Credits
Gross and microanatomy of the human. Course includes three hours of lecture and three hours of laboratory applications each week. This course will only count toward the radiological technologist program at the University of Tennessee Medical Center. On Demand

BOTANY
◆★BOT 1010  Fundamentals of Botany I  4 Credits
Introduction to taxonomy through tree identification, basic organization and function of cells, respiration, photosynthesis, genetics (including meiosis, mitosis, Mendelian inheritance), survey of plant kingdom (bacteria, algae, fungi, mosses, ferns, conifers, and flowering plants). Fall

◆★BOT 1020  Fundamentals of Botany II  4 Credits
Plant growth, anatomy, growth regulation; uptake and transport; origin of life and mechanism of evolution; ecology, importance to humans and environmental concerns. Spring

BUSINESS ADMINISTRATION
★BUS 2010  Business Functions  4 Credits
Understanding how business works through application and integration of fundamental business functions. Includes aspects of marketing, finance, logistics, operations, organizational behavior and information management. Spring and Fall Prerequisite(s): ACC 2000 and ECN 2010

CHEMICAL ENGINEERING
★CHT 2001  Chemical Engineering Fundamentals  3 Credits
A study of material balances, energy balances and numerical methods with applications to problem solving. Computer hardware and software will be required as specified on the syllabus. On Demand Prerequisite(s): ENS 1510 and 1520 and CHEM 1120 Corequisite(s): MATH 1920

CHEMISTRY
◆★CHEM 1010  Principles of Chemistry  4 Credits
Atomic structure, periodic law, bonding, gas laws, liquid and solid states, solutions, acids and bases, oxidation and reduction reactions and equilibrium. Course includes three hours of lecture and three hours of laboratory applications each week. Spring and Fall Prerequisite(s): Two years of high school algebra and completion of DSP math requirements

◆★CHEM 1020  Basic Organic & Biochemistry  4 Credits
Organic chemistry: alkanes and unsaturated and aromatic hydrocarbons, with emphasis on structure, nomenclature, and functional groups. Biochemistry: amino acids and proteins, carbohydrates, lipids, nucleic acids. Course includes three hours of lecture and three hours of laboratory applications each week. Spring and Fall Prerequisite(s): CHEM 1010

◆★CHEM 1110  General Chemistry I  4 Credits
Modern atomic theory, chemical bonding, stoichiometry, kinetics. Course includes three hours of lecture and three hours of laboratory applications each week. Spring and Fall Prerequisite(s): Two years of high school algebra and completion of DSP math requirements
CHEM 1120 General Chemistry II 4 Credits
Chemical equilibrium, thermochemistry, electrochemistry, introduction to organic chemistry. Course includes three hours of lecture and three hours of laboratory applications each week. Spring and Fall Prerequisite(s): CHEM 1110

CHEM 1310 Concepts of Chemistry 3 Credits
Composition of matter, atomic structure, bonding, gas laws, liquid and solid states, solutions, acids and bases, chemical reactions, nuclear chemistry and technology, polymers, household chemistry, and introduction to environmental and organic/medicinal chemistry. Course includes three hours of lecture and three hours of laboratory applications each week. This course will only count toward the education program at Tennessee Technological University and Lincoln Memorial University. Spring and Fall

CHEM 2010 Organic Chemistry I 4 Credits
Compounds of carbon and their reactions. Reaction mechanisms, synthesis, spectroscopic and other physical properties. Course includes 3 hours of lecture and 3 hours of laboratory applications each week. Spring and Fall Prerequisite(s): CHEM 1120

CHEM 2020 Organic Chemistry II 4 Credits
Continuation of CHEM 2010. Course includes 3 hours of lecture and 3 hours of laboratory applications each week. Spring and Fall Prerequisite(s): CHEM 2010

CHEM 2310 Analytical Chemistry 4 Credits
Principles and practices of quantitative measurements in chemical systems are introduced. Chemical equilibria (acid base, complexometric and redox), elementary spectrophotometry; chemical separations—including chromatography, ion exchange and solvent extraction—are discussed. Course includes 3 hours of lecture and 5 hours of laboratory applications each week. Spring Prerequisite(s): CHEM 1120

CHILD AND FAMILY STUDIES

CFS 1100 Introduction to Early Childhood Education 3 Credits
The history and philosophy of the field of early childhood education. Current issues and trends are covered along with educational theories and program models. Spring and Fall

CFS 2110 Development in Infancy 3 Credits
A course that studies theories, knowledge and practices in infant/child development with a focus on conception to age 9. Particular emphasis is placed on development in the physical, cognitive, language and socioemotional domains. Spring and Fall

CFS 2200 Marriage & Family: Roles & Relationships 3 Credits
Explores marriage and family experiences; personal choices; marital adjustments; conflict management; parenting decisions; communication; and changes resulting from divorce, widowhood, and remarriage. Spring and Fall

CIVIL ENGINEERING TECHNOLOGY

CET 0100 Introduction to Surveying 3 Credits
This course covers both fundamental and advanced concepts of algebra, geometry and trigonometry. Surveying as a career and basic terminology are also discussed. Fall

CET 1000 CET Seminar 1 Credit
This course provides the Civil Engineering Technology student an opportunity to observe the organization and function of local industries engaged in the practice of civil engineering and related activities. The student will visit offices, plant sites and construction projects to observe practical work situations. Speakers will be invited to the classroom to discuss topics in the civil engineering technology field. Fall

CET 1010 Construction Methods 4 Credits
The basic techniques and fundamentals essential in erecting wood frame, steel frame and reinforced concrete frame buildings. The study involves the various phases from site investigation through finished work. Fall
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<th>Course Code</th>
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<td>CET 1022</td>
<td>Construction Materials W/Lab</td>
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<td>CET 1212</td>
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<td>CET 2212</td>
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<td>CET 2220</td>
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<td>CET 2240</td>
<td>Legal Aspects of Surveying</td>
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<td>CET 2312</td>
<td>Mechanical Systems I W/Lab</td>
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<td>CET 2322</td>
<td>Mechanical Systems II W/Lab</td>
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<tr>
<td>CET 2410</td>
<td>Structural Steel Design</td>
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This is an introductory course in the basic properties, testing and inspection of construction materials and the methods of production of these materials. Topics include an introduction to basic concepts of strength of materials and properties of construction materials such as aggregates, asphalt, steel, and wood; their proper application; performance of standard tests on construction materials and the preparation of proper technical reports on test results. Word processing and spreadsheet software are used to prepare reports that include text, tables, data reduction and graphs. Spreadsheet templates are developed for use in data reduction. 

Spring

The basic theory and applications of measurement with steel tape, transit, level and total station. Topics include pacing, horizontal and vertical distance measurements, traverse computations and field notes. 

Spring

The interpretation of building plans, preparation of quantity surveys dealing with individual sections of work, computation of labor costs, pricing of material costs, overhead and profit. This class also includes an introduction to Timberline software. 

Fall

This course covers methods used in planning, organizing and controlling construction projects. It includes the use of bar charts and critical path diagrams. Software is used to create project schedules. Emphasis is placed on time, resources and capital considerations for the project. 

Spring

Prerequisite(s): Second-year status or consent of instructor

This course covers basic soil mechanics including index properties of fine and coarse soil, soil classification, stress analysis, permeability, compaction, strength concepts, and settlement and compressibility. The laboratory covers standard ASTM soil tests. Word processing and spreadsheet software are used to prepare professional technical reports that include text, tables, data reduction and graphs. Spreadsheet templates are developed for use in data reduction. 

Fall

Prerequisite(s): MATH 1730

Use of total stations, data collectors, GPS systems, surveying software, and AutoCAD. Field applications of traversing, topo-mapping, profiling and cross-sectioning, and construction stakeout. Related topics in surveying astronomy, photogrammetry, and horizontal and vertical curves. 

Fall

Basic concepts and design considerations in site planning and development. Topics include topography, storm water drainage, retention basins, sanitary sewer considerations, subdivision planning and pavement alignment and design. AutoCAD Land Desktop software is taught in the development of a parcel of land. 

Spring

This course emphasizes the legal aspects of land surveying, including professionalism, licensing, documents, legal definitions and laws. 

Fall

The basic design principles of hydraulics; water distribution; sewage systems; fire sprinkler systems; and heating, ventilation and air conditioning systems. 

On Demand

Prerequisite(s): Second-year status

The basic principles of electricity, wiring principles, multiphase systems, lighting fundamentals and energy management control systems. 

On Demand

Prerequisite(s): Second-year status

Design of structural steel members and their connections. Topics include tension and compression members, beams, girders, trusses and columns subjected to concentric and eccentric loads. 

On Demand

Prerequisite(s): MET 1040
CET 2420  Reinforced Concrete Design  3 Credits
Design of reinforced concrete structures, including beams, columns, floor systems, footings and retaining walls. *On Demand*  
Prerequisite(s): MET 1040

CET 2710  Special Projects Variable Hours  1-3 Credits
Projects related to practical applications of design, allowing students to use theory, methods and practices similar to those encountered on the job. Group design projects are developed by a team of students under faculty supervision. The course credit depends upon the complexity of the project. *On Demand*

**COMMUNICATIONS**

★CMN 1500  Communication in an Information Age  3 Credits
This course provides an overview of human, mass and mediated communication. It includes an introduction to finding, organizing and evaluating information. *Spring and Fall*

**COMMUNICATION GRAPHICS TECHNOLOGY**

★CGT 1030  Introduction to Macintosh Graphic Design  3 Credits
Introduction to the Macintosh computer and its operating system and an overview of graphic design applications. A functional lab will be included as a component of the course. *Spring and Fall*  
Corequisite(s): ART 1011 and CGT 1950; no corequisite for non-CGT majors

CGT 1040  Digital Photography  3 Credits
A study of the fundamentals of photographic concepts, techniques and digital imaging processes for graphic design. Includes skill development with Adobe Photoshop software. *Spring and Fall*  
Prerequisite(s): CGT 1030 or consent of instructor

CGT 1105  Digital Graphic Design I  4 Credits
A study of visual communications theory, creative problem solving techniques and concepts for graphic design. Portfolio development and review. *Spring and Fall*  
Prerequisite(s): ART 1011 and CGT 1030 and 1950  
Corequisite(s): CGT 1110

CGT 1110  Typography  3 Credits
A study of the basics of typography, including history, font designs, functional and expressive applications for graphic designs. Introduction to use of computerized equipment emphasized. *Spring and Fall*  
Prerequisite(s): CGT 1030  
Corequisite(s): CGT 1105 or consent of instructor

★CGT 1510  History of Graphic Design & Illustration  3 Credits
Major movements and pivotal artists/designers/illustrators/art directors, 1850 to the present, and their effect on current graphic design trends. *Spring and Fall*

CGT 1911  Portfolio  1 Credit
Organization and correct presentation of first-year art and design studio work for critical evaluation. A successful performance review by designated faculty and industry professionals is essential for continuance to second-year CGT coursework. *On Demand*  
Prerequisite(s): Completion of or enrollment in first-year CGT coursework and consent of instructor

CGT 1950  Design Fundamentals  3 Credits
A study of visual design fundamentals, creative problem solving techniques, color theory application and concept development for graphic design. Emphasis will be placed on visual literacy development, presentation techniques, craftsmanship and computer skill development using graphic design industry standard software. *On Demand*  
Corequisite(s): ART 1011 and CGT 1030

CGT 2005  Digital Graphic Design II  4 Credits
The study of advertising design, including design research, creative strategies development, visual/verbal concepts and presentation skills. Individual and team projects. *Fall*  
Prerequisite(s): CGT 1105 and successful portfolio review
CGT 2040  Computer Illustration  3 Credits
Creating electronic renderings for visual communications. Infographics, product, editorial and conceptual imaging are explored. Spring and Fall Prerequisite(s): CGT 1040 and 1105 and 1110

CGT 2045  Advanced Photoshop  3 Credits
An advanced study of photographic concepts, image enhancement, digital image editing techniques and processes for visual communication. Includes beyond-the-basics skill development with Adobe Photoshop software. On Demand Prerequisite(s): CGT 1040 or MDT 2100; and CGT 2040; or consent of instructor

CGT 2050  Special Projects  1-3 Credits
Special projects and applications in emerging technology and media. May be repeated up to 9 credits. On Demand Corequisite(s): CGT 1105 or consent of instructor

CGT 2055  Digital Graphic Design III  4 Credits
Advanced graphic design. Comprehensive projects to include design management, development and production. Professional portfolio/student exhibition. Spring Prerequisite(s): CGT 2005 or consent of instructor

CGT 2140  Desktop Publishing  3 Credits
A study of electronic publishing, including the integration of text and graphics. A functional lab will be included as a component of the course. Spring and Fall Prerequisite(s): Consent of instructor

CGT 2160  3D Modeling & Animation  3 Credits
A study of advanced three-dimensional design and animation. Virtual modeling techniques and the basics of 3D motion will be emphasized. Spring and Fall Prerequisite(s): CGT 1105 and 2040; or consent of instructor

CGT 2240  Advanced Computer Illustration  3 Credits
An advanced study in creating electronic renderings for visual communications. Infographics, product, editorial and conceptual imaging are explored in depth. On Demand Corequisite(s): CGT 1040 and 1105 and 2040

COMPUTER INTEGRATED DRAFTING AND DESIGN TECHNOLOGY

☆CID 1100  Fundamentals of Technical Drawing W/Lab  3 Credits
A broadly focused CAD course for CIDD majors, Engineering Technologies majors and Engineering transfer students. This course covers the basic techniques and principles necessary to produce engineering drawings, including the use of drafting equipment, freehand sketching, geometric construction, orthographic and isometric drawings, dimensioning and assembly drawings. The computer is used as a drafting tool to teach CAD commands and reinforce the concepts of technical drawing. Word processing and spreadsheet software are also incorporated to prepare professional technical reports. Spring and Fall

CID 1105  Engineering Drawing W/Lab  4 Credits
This course is taught in conjunction with Fundamentals of Technical Drawing for CIDD majors. It covers the basic techniques and principles necessary to produce engineering drawings, including the use of traditional drafting equipment, freehand sketching, geometric construction, descriptive geometry, orthographic and isometric drawing, dimensioning, and assembly drawings as they are applied in a professional environment. The computer is used as a drafting tool to teach CAD commands, reinforce the concepts of technical drawing and reinforce the understanding of drafting standards. Spring and Fall Corequisite(s): CID 1100

☆CID 1110  Technical Illustration W/Lab  4 Credits
A coverage of basic sketching skills and the communication concepts of describing physical objects graphically through the use of line drawings, techniques of shade and dimensional representation using perspective methods. The student will learn how to represent an object, building or other shapes using freehand sketching and orthographic projection methods such as isometric, diametric, trimetric and perspective projection methods. Both one-point and two-point perspectives will be covered. On Demand Prerequisite(s): CID 1100
CID 1210 Architectural Drawing W/Lab 4 Credits
An introduction to architectural drafting. The course will use CAD software to teach the basic elements of architectural drafting. The students will produce a set of architectural drawings that will include floor plan, site plan, building section, wall section and elevations. The computer will also be used to calculate quantities and produce reports. Spring and Fall
Prerequisite(s): CID 1100

CID 1220 Advanced Mechanical Drawing W/Lab 4 Credits
An introduction to Microstation CAD software and a continuation of mechanical drawing practices. This course covers basic commands, 3D commands, file manipulations, cells, symbology, and dimensioning. Descriptive Geometry (auxiliary views, intersections, developments, and flat pattern layouts), ANSI standard Y.14 dimensioning and tolerancing and simple assembling drawing are also covered. Spring and Fall
Prerequisite(s): CID 1100 and 1105

CID 2004 Animation W/Lab 3 Credits
Using animation, this class will address a broad range of applications, such as interior design, graphic design, video production, industrial design and architectural presentations. Students will use 3D Studio MAX to create three-dimensional models, create light schemes, apply lights, create and supply materials, place and manipulate cameras, and animate objects. On Demand
Prerequisite(s): CID 1100 or consent of instructor

CID 2115 Architectural Desktop W/Lab 3 Credits
An architectural modeling and drafting class using Autodesk’s Architectural Desktop. The course uses Architectural Desktop to model walls, doors, windows, floor planes, roof, kitchen appliances, bathroom fixtures and other components of a building. The student will generate dimensioned plans, sections, elevations and wall sections from the 3D digital model. Students will also create a digital walk-through and rendered images of the model. On Demand
Prerequisite(s): CID 1210 or consent of instructor

CID 2155 Advanced AutoCAD I W/Lab 3 Credits
Expands the knowledge and use of AutoCAD software commands with the continuation of training begun in CID 1100 and 1105. The course covers topics involving the creation and manipulation of orthographic and three-dimensional drawings, introduction of solid modeling, the concept of creation and management of symbol libraries, and rendering the models. The students will be able to use AutoCAD to enhance their performance in producing various drafting projects, create a three-dimensional model and turn the model into a fully detailed set of working drawings. Spring and Fall
Prerequisite(s): CID 1100 and 1105; CID 1100 for CET majors

CID 2175 Architectural Detailing W/Lab 3 Credits
A continuation of concepts covered in CID 1210. More detailed drawing requirements will be covered, as well as the need for more specialized drawings. The student will organize and draw a set of detailed drawings consisting of wall sections, large-scale details, isometric details, multiple plans, interiors elevations and details required for special construction. On Demand
Prerequisite(s): CID 1210

CID 2195 Civil Drawing W/Lab 3 Credits
This course covers traditional topographic representations of three-dimensional modeling of terrain. Students use the 3D models to generate profiles, cut and fill. They also learn the basics of highway layout and bridge structure. 3D modeling is used as an animation tool to evaluate terrain and resulting cuts and fill. On Demand
Prerequisite(s): CID 1100 and 1105; or consent of instructor

CID 2235 Parametric Modeling W/Lab 3 Credits
An advanced course using parametric modeling and solid modeling applications such as Pro/ENGINEER and Inventor. Students create parametric, feature-based, three-dimensional solid models. This course covers assemblies, rendering and detailing engineering drawings. May be repeated for up to 6 hours of credit. On Demand
Prerequisite(s): CID 1100 and 1105; or consent of instructor

CID 2255 Advanced AutoCAD II W/Lab 3 Credits
A continuation of training in the use of AutoCAD. This course will cover other applications offered by Autodesk. On Demand
Prerequisite(s): CID 2155
**CID 2301  CIDD Project/Internship  2 Credits**

The student and the instructor identify a project or outside work experience to be completed by the student. The student is expected to produce sketches, working drawings, details, sections, auxiliary views, etc. as required to completely describe the project. The student will also develop a traditional paper portfolio and an electronic portfolio. *Spring and Fall*

**Prerequisite(s):** Program coordinator approval and second-year standing

**CID 2900  Special Topics  1-4 Credits**

Special projects and applications in emerging technology. Content will vary, as this course is a means for classes to explore certain topics in depth not covered in the general curriculum. May be repeated for credit up to 9 hours. *On Demand*

**Prerequisite(s):** Consent of instructor

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### COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>★CSIT 1000</td>
<td>Introduction to Computers &amp; Computing</td>
<td>3</td>
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<tr>
<td>★CSIT 1020</td>
<td>Introduction to Computer Science</td>
<td>4</td>
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<tr>
<td>★CSIT 1050</td>
<td>Programming for Engineering Transfer</td>
<td>1</td>
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<tr>
<td>CSIT 1110</td>
<td>Introduction to Information Technology</td>
<td>4</td>
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<tr>
<td>CSIT 1200</td>
<td>Application Development Using Visual Basic</td>
<td>4</td>
</tr>
<tr>
<td>★CSIT 1300</td>
<td>Problem Solving for Engineering Transfer</td>
<td>2</td>
</tr>
<tr>
<td>★CSIT 1400</td>
<td>Data Structures</td>
<td>4</td>
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<tr>
<td>CSIT 1410</td>
<td>Machine Organization</td>
<td>4</td>
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**CSIT 1000  Introduction to Computers & Computing  3 Credits**

This course covers the basic concepts of computer hardware and software, microcomputer systems and workstations, networking and the Internet, and the interdisciplinary science of computing. This course is intended for University Parallel students not majoring in computer science. *On Demand*

**CSIT 1020  Introduction to Computer Science  4 Credits**

Problem solving and algorithm development. Organization and characteristics of modern digital computers. Emphasis on developing good programming habits. Building abstractions with procedures and data. Programming in a modern computing language. Program development using UNIX operating system. This course is intended for University Parallel students majoring in Computer Science or Computer Engineering. It is not designed as an elective for non-majors. *Spring and Fall*

**Corequisite(s):** MATH 1730 or equivalent

**CSIT 1050  Programming for Engineering Transfer  1 Credit**

Computer programming using C++ for engineering problem solving. Introduction to computer programming concepts, problem analysis, code formulation, engineering data utilization and applications. *Spring and Fall*

**CSIT 1110  Introduction to Information Technology  4 Credits**

A first course in computer science and information technology, providing a comprehensive overview of computer architecture, data organization and communication. This course includes problem solving, logic design, personal computing, operating systems and application software. *Spring and Fall*

**CSIT 1200  Application Development Using Visual Basic  4 Credits**

A study of Windows graphic interface development through the Visual Basic programming language. The student will use VBA (Visual Basic for Applications) for customizing applications such as Word, Excel, Access, MS Project, Visio, AutoCAD, accounting and helpdesk. Topics include VBA programming tools and integrating with Internet and intranet solutions. *On Demand*

**Corequisite(s):** CSIT 1110 or consent of instructor

**CSIT 1300  Problem Solving for Engineering Transfer  2 Credits**

Application of computers to engineering problem solving. Introduction to computer mathematical tools, problem analysis, code formulation, engineering data plotting and simulations. Solutions of engineering problems using MatLab. *On Demand*

**CSIT 1400  Data Structures  4 Credits**

Advanced problem solving and algorithm development, structured programming, data structures and applications, I/O techniques, lists, queues, trees, algorithms, and files. Program development using UNIX operating system. This course is intended for University parallel students. *Fall*

**Prerequisite(s):** CSIT 1020 or department approval

**CSIT 1410  Machine Organization  4 Credits**

A study of assembly language and computer organization. Topics include organization, architecture, number systems, storage concepts, I/O, memory management and process management. *Spring and Fall*

**Prerequisite(s):** CSIT 1110
CSIT 1510  Introduction to Programming Using Java  4 Credits
A study of the Java programming language, object-oriented programming, design and algorithm development. Topics include language structure and syntax, methods, program control statements, classes, strings, arrays, and applets. Spring and Fall Corequisite(s): CSIT 1110

CSIT 1520  Advanced Java Programming  4 Credits
A study in Java language techniques beyond the introductory course. Emphasis will include object-oriented design, arrays, GUI and event-driven programming, exceptions and Java packages for collections, file I/O, and database connectivity. Spring Prerequisite(s): CSIT 1110 and 1510 or Java programming experience

CSIT 1541  C++: An Introduction to Programming  4 Credits
An introduction to programming using the C++ language. Extensive problem solving, algorithm development, programming logic, object-oriented construction, syntax fundamentals and program design methodologies are used to provide a foundation of understanding computer programming. On Demand

CSIT 1600  Computer Organization  4 Credits
Number systems, Boolean algebra, combinational and sequential circuits, processor functional units and control, pipelining, memory and caching, stored program computing, memory management, computer system organization, and assembly language programming are components of the course. Spring Prerequisite(s): CSIT 1020 or department approval

CSIT 1810  Introduction to Database Design  4 Credits
A study of database management systems and their impact on information technology. Topics include database models, data modeling techniques, conceptual and physical design, storage techniques, and data administration. Special emphasis will be placed on relational systems and application of query languages using relational operations. Laboratory exercises will include database application design and development using desktop development tools. Spring and Fall Prerequisite(s): CSIT 1110 or GIS 1010 or WEB 2200

CSIT 2100  Information Support Services  4 Credits
This course provides the skills appropriate for end-user support. The focus of the course is on helpdesk interactions, the use of a customer management database, product evaluation, end-user training and creating documentation. On Demand Prerequisite(s): CSIT 1110 and MKT 2420; or consent of instructor

CSIT 2410  Introduction to Linux  4 Credits
A study of the Linux operating system. Topics include the file system, basic commands and utilities, text editors, electronic mail, graphical user interfaces, and an introduction to shell scripts. On Demand

CSIT 2411  Linux System Administration  4 Credits
A study of system administration tools and techniques for the Linux operating system. Emphasis will be on the practical use and application of the Linux operating system to perform system installation, configuration and maintenance tasks. Spring and Fall Prerequisite(s): CSIT 2410 or Linux/UNIX system administrator or user-level experience; no prerequisite for HPC majors

CSIT 2412  Linux Certification Exam Preparation  2 Credits
A study of system administration tools and techniques for the Linux operating system to prepare for entry-level industrywide Linux certificates. On Demand Prerequisite(s): CSIT 2411 or Linux/UNIX system administrator experience

CSIT 2425  SQL Applications Using Oracle  4 Credits
A comprehensive study of SQL using the Oracle relational database management system. Hands-on training will include the use of SQL*PLUS, database creation, data queries, view definition and use, operators and functions, security, calculation, indexing, utilities and data transport. Spring and Fall Prerequisite(s): CSIT 1810 and one programming course
CSIT 2445  **Oracle Application Development**  4 Credits
An introduction to database application programming using Oracle development tools, including Oracle Forms, Oracle Reports and advanced PL/SQL procedures. Hands-on training will include design and development of client-server and Web applications.  *Fall Corequisite(s):* CSIT 2425 or department approval

CSIT 2460  **Unix Utilities & Shell Programming**  4 Credits
A study of the UNIX operating system. Topics include the use of UNIX utilities, electronic mail, shell programming.  *On Demand Prerequisite(s):* CSIT 1110 and one programming course

CSIT 2465  **Object-Oriented Database Application Development**  4 Credits
A study of database program development for business applications using desktop development tools. Topics include table creation and maintenance, indexing, data manipulation, forms, reports, labels, queries, data modules, object-oriented data manipulation (OODML), event-driven applications, rapid application development (RAD) and client-server development.  *On Demand Prerequisite(s):* CSIT 1810 and one programming course

CSIT 2475  **Linux Advanced System & Network Administration**  4 Credits
A study of advanced system and network administration topics for the Linux operating system. Topics include configuration and management of services like FTP, SSH, NFS, NIS, LDAP, Samba, DNS, BIND, DHCP, HTTP, sendmail, postfix and procmail. Emphasis will be on the practical use and application of the advanced system and network administration skills.  *On Demand Prerequisite(s):* CSIT 2411 or appropriate Linux/UNIX system administration experience

CSIT 2476  **Linux System Security Administration**  4 Credits
A study of system security administration topics for the Linux operating system. Topics include SELinux, console access control, firewalls, TCP wrappers, xinetd access control, tripwire configuration, PAM configuration, system monitoring techniques, encryption, PKI and Open SSH configuration.  *On Demand Prerequisite(s):* CSIT 2411 or appropriate Linux/UNIX system administration experience

CSIT 2477  **Advanced Linux Certification Exam Preparation**  2 Credits
A study of system administration tools and techniques for the Linux operating system to prepare for advanced-level industrywide Linux certificates.  *On Demand Prerequisite(s):* CSIT 2475 and 2476 or CSIT 2412 or entry-level Linux certification or advanced-level Linux/UNIX system administrator experience

CSIT 2480  **Desktop System Administration**  4 Credits
This course covers intermediate desktop computer operations. Course content includes managing files and disk drives, installing software, customizing the desktop environment, security, and troubleshooting.  *On Demand Prerequisite(s):* CSIT 1110 or consent of instructor

CSIT 2490  **Special Topics in Information Technology**  4 Credits
A directed study and utilization of specific hardware, applications and software products within business and industry. This course requires extensive utilization of specific computer resources. Students may expect a high degree of lab work and documentation.  *On Demand Prerequisite(s):* CSIT 1110 or department approval

CSIT 2550  **Advanced Database Management Systems**  4 Credits
A study of database management system concepts. Topics include relational and object-oriented models, conceptual design, data structures, storage techniques, data administration, system security, concurrent transactions, distributed systems, multi-tiered architectures, data warehousing, and data mining. Practical application of techniques may include advanced application of query languages, remote access, database administration and user support.  *Spring Prerequisite(s):* CSIT 2425
CSIT 2610 Visual Basic Programming 4 Credits
A study of Windows graphic interface development through the learning and hands-on application of Visual BASIC programming language. The learner will develop, design, code, and test graphic sessions, images, windows, mouse selections, data usage, and image movements to produce client-based working programs. Emphasis will be on code creation, sound programming practice, window control and graphic design. Development of working client-based products is essential to the completion of this course. On Demand Prerequisite(s): One programming course

CSIT 2630 C# Programming 4 Credits
A study of object-oriented programming through the use and practical application of C# language. Topics include classes, objects, methods, GUI programming, graphics, databases, XML, Web pages and Internet. On Demand Prerequisite(s): CSIT 1510 or one programming course

CSIT 2645 Introduction to Internet Software Development 4 Credits
The history, growth and use of the Internet are explored, and major Internet protocols are discussed. Students use HTML and other technologies to create their own Web pages. Students work individually and in teams to create Web sites, using dynamic HTML techniques in conjunction with content management systems. On Demand Prerequisite(s): One programming course

CSIT 2655 Enterprise Java Programming 4 Credits
A continued examination of Java programming including servlets, Java server pages, Corba and Enterprise JavaBeans. The course will use case studies. A team project is required. On Demand Prerequisite(s): CSIT 1520, 1810 or Java programming experience

CSIT 2665 Perl Programming 4 Credits
A study of the Perl programming language including regular expressions, objects from Perl libraries, file handling and networking. Perl and its use in CGI scripts with HTML Web pages are included. On Demand Prerequisite(s): One programming course

CSIT 2690 Object Oriented Programming Using C++ 4 Credits
The study of object-oriented programming and design through the practical application of the C++ language. The course covers object-oriented design, data abstraction and encapsulation, operator overloading, inheritance, polymorphism, stream I/O and object-oriented data structures. Fall Prerequisite(s): One programming course

CSIT 2695 Advanced C++ 4 Credits
A study of advanced C++ programming concepts. Emphasis is on development for the Windows environment. Projects may include extensive use of the Standard Template Library (STL), the Active Template Library (ATL), the Microsoft Foundation Class Library (MFC) and the .NET framework. Topics include C++ support of windows and controls, event handling, images, fonts, and colors. On Demand Prerequisite(s): CSIT 2690 or department approval

CSIT 2810 Systems Analysis & Design 4 Credits
This course examines established and evolving methodologies for the analysis, design, and development of a business information system. Students practice software engineering principles and documentation techniques through team projects. Emphasis is placed on business systems characteristics, prototyping, CASE tools and SDLC phases. Spring and Fall Prerequisite(s): CSIT 2425 or CSIT programming elective or department approval; and CSIT 1810 and ENGL 1010

CSIT 2880 Server-Side Internet Development 4 Credits
This course will cover the server-side scripting languages PHP and ASP. Both languages will be used to access a database. PHP and ASP objects will be covered. This course corresponds to the CIW Dynamic Server Pages course. On Demand Prerequisite(s): CSIT 1110 or WEB 2200; and CSIT 1810 and one programming course; or department approval
CSIT 2911  Computer Science & Information Technology Internship  3 Credits
This course is a supervised work experience requiring a minimum of 135 hours in the field of computer science and information technology. Individual conferences are arranged instead of class attendance. Spring and Fall Prerequisite(s): Completion of 20 hours of CSIT courses with a minimum 2.5 GPA in CSIT courses; pursuit of an A.A.S. degree as a CSIT major; a completed internship application submitted to the coordinator of Business and Computer Technology internships prior to the beginning of the enrolled term. Application is available on the Web: www.pstcc.edu/departments/bctpi.

**CREDIT UNION MANAGEMENT**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUE 1080</td>
<td>Credit Union Marketing</td>
<td>3</td>
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A study of the facts and principles of marketing and its application in credit unions. Topics include the marketing concept and structure, marketing information and buyer behavior, consumer and intermediate customers’ buying behavior, product packaging and branding decisions, consumer and industrial goods, product planning and time-placed utility, channels of distribution, promotion, pricing strategy and developing a marketing program, controlling marketing programs and the cost value to society. *On Demand*

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<tr>
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<tbody>
<tr>
<td>CUE 2000</td>
<td>History &amp; Philosophy of Credit Unions</td>
<td>2</td>
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A study of the credit union movement, including the history, legal basis, powers and characteristics of credit unions. Topics include credit union management and the financial system. *On Demand*

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<tr>
<td>CUE 2050</td>
<td>Credit &amp; Collections</td>
<td>3</td>
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A study of the extension of credit. Topics include nature and role of credit, types of credit, basis of the credit decision, numerical scoring systems and collections policies, practices and systems. *On Demand*

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<tbody>
<tr>
<td>CUE 2100</td>
<td>Credit Union Accounting I</td>
<td>3</td>
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A study of principles of accounting theory. Includes analyzing and recording business transactions and summarizing, adjusting, closing and preparing financial statements. *On Demand*

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<tr>
<td>CUE 2150</td>
<td>Human Resource Management</td>
<td>3</td>
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A study of records management, training, salary administration, job evaluation, performance appraisal and benefit programs. *On Demand*

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<tbody>
<tr>
<td>CUE 2200</td>
<td>Credit Union Management</td>
<td>2</td>
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A study of planning, organizing, leading and controlling as it relates to credit union operation. *On Demand*

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<tbody>
<tr>
<td>CUE 2230</td>
<td>Strategic Business Management &amp; Leadership</td>
<td>3</td>
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This course will expose students to various authors on leadership and the future. The course will identify students’ skills and potential to enable them to move into progressively challenging roles that will have positive impacts on other individuals and on the future of credit unions. *On Demand*

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<tr>
<td>CUE 2250</td>
<td>Risk Management &amp; Insurance</td>
<td>3</td>
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A study of the concepts and principles of risk management and control. Important concepts of insurance, property and liability, personal and institution risk exposures and insurance are covered. *On Demand*

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<tr>
<td>CUE 2300</td>
<td>Financial Counseling</td>
<td>2</td>
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A study of financial counseling. Topics include family resource management, consumer credit, budgeting, social security and estate planning. *On Demand*

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<tr>
<td>CUE 2310</td>
<td>Economics &amp; the Monetary System</td>
<td>3</td>
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</table>

Introduction to basic concepts and theories of supply, demand, inflation, GNP and elasticity. Additional topics include money’s functions, types of financial institutions, significant banking legislation and the Federal Reserve and its powers. Special emphasis is placed on applications to credit unions. *On Demand*
CUE 2350 Money & Banking 3 Credits
A study of financial institution structures and their role in the financial, economic and open market operations. On Demand

CUE 2400 Business Law 3 Credits
A study of the principles of law as applied to business transactions, including contracts, employment, negotiable instruments and security agreements. On Demand

CUE 2450 Financial Management I 3 Credits
An introduction to general concepts in finance and their application to credit union financial management. This is the first in a two-part series on financial management. On Demand
Prerequisite(s): CUE 2000

CUE 2500 Credit Union Finance 3 Credits
Applications and issues in credit union financial management. On Demand
Prerequisite(s): CUE 2450

DEVELOPMENTAL STUDIES ENGLISH (SEE ENGLISH)
DEVELOPMENTAL STUDIES MATH (SEE MATHEMATICS)
DEVELOPMENTAL STUDIES READING (SEE READING)

DEVELOPMENTAL STUDY SKILLS

DSPS 0800 College & Lifetime Learning 3 Credits
College and Lifetime Learning supports integration of reading, English and math skills. Content covers a combination of traditional study skills including note taking, test taking and improving memory. It also covers essential life skills including managing time, managing conflict, setting goals, solving problems creatively, maintaining good health and utilizing community and college resources. Spring and Fall

E-COMMERCE/MARKETING

MKT 2200 Principles of Marketing 3 Credits
A study of the function of marketing in businesses and organizations. Topics include target markets, segmentation, product and service analysis, promotion planning, distribution and supply chain management, and pricing strategies within the context of relationship marketing. Spring and Fall

MKT 2260 Marketing Information 3 Credits
This course focuses on the collection, evaluation, and analysis of data and information about the external environment, products and industries, and consumer/buyer behavior. It is an analysis of how buying behavior and decision-making affect the development, pricing, distribution and promotion of products. Fall
Prerequisite(s): MKT 2200 and OST 1211

MKT 2350 Customer Behavior 3 Credits
This course addresses the factors that influence the behavior of consumers and business customers. One section focuses on cultural, social, family, and individual influence, such as personal motives, perception, and attitudes on consumer buying decisions for goods and services. Another section addresses business-to-business buying behavior. Spring
Prerequisite(s): MKT 2200

MKT 2420 Customer Service 3 Credits
A practical course designed to prepare students to meet and exceed customers’ expectations. The course focuses on communication, including listening, electronic, verbal, nonverbal, and telephone communication skills and communicating in difficult and diverse customer situations. Techniques for learning involve simulations, observation research and an individual skill-building project. Spring and Fall
MKT 2450  E-Commerce  3 Credits
A study of e-commerce and its impact on business. The course provides a framework for understanding e-commerce, including possible marketing opportunities, as well as implementation and organization issues involved in capitalizing on e-commerce. **Fall**

MKT 2471  E-Commerce/Marketing Internship  3 Credits
This course is a supervised work experience requiring a minimum of 135 hours in an e-commerce/marketing training capacity. Individual conferences are arranged instead of class attendance. **On Demand**

MKT 2570  Sales/Event Marketing  4 Credits
A study of the principles and techniques of effective promotion. Course is designed to provide foundational skills in sales and sales management, public relations and event marketing. **Spring**

**Prerequisite(s):**
- Completion of 15 hours of MKT courses with minimum 2.5 GPA in MKT courses;
- Seeking an A.A.S. degree as an E-Commerce/Marketing major;
- A completed internship application submitted to the Coordinator of BCT Internships prior to enrollment in the course and the beginning of the term. Application is available on the Web: www.pstcc.edu/departments/bctpi.

ECEd 1010  Orientation to Early Childhood Education  2 Credits
Introduces the student to the early childhood education profession and the basic skills needed for a successful academic career. Topics include professionalism, family relationships, individual and cultural diversity, child development, developmentally appropriate practice, observation and assessment, learning environment, health and safety, and guidance. Students study the different types of early childhood programs, community resources and professional organizations. **Spring and Fall**

ECEd 2010  Safe, Healthy Learning Environments  3 Credits
A study of the basic principles of good health as they relate to the child in the family, child care center, or family child-care home, and the community. Includes child nutrition, growth, disease and accident prevention, and safety. Also included is a study of principles of creating appropriate learning environments for young children. Laboratory observation and interaction. **Spring and Fall**

ECEd 2015  Early Childhood Curriculum  3 Credits
A study of developmentally appropriate practices and the teacher’s role in supporting the development of children age birth to 9. Emphasis is on curriculum planning, including goals, environment, roles of teachers and parents, materials, and settings. Field experience required. **Spring and Fall**

ECEd 2020  Infant, Toddler & Child Development  3 Credits
The study of the physical, cognitive, social, and emotional aspects of young children and their application to the care, guidance, and development of the child birth to 9. **Spring and Fall**

ECEd 2021  Infant, Toddler & Child Development Lab  1 Credit
A laboratory course that provides the opportunity for students to observe and interact with children in an early childhood setting. Students participate in an accredited developmental program with children from infancy to early childhood to observe their emotional, social, cognitive and physical development. **Spring and Fall**

ECEd 2030  Infant & Toddler Care  3 Credits
A course in methods of providing safe, competent individual and group care, as well as a warm and secure emotional atmosphere for infants and toddlers. Includes procedures for stimulating the intellectual and physical development of infants and toddlers in addition to basic care-giving skills. Course open to Nonmajors (i.e. parents, parent-to-be, babysitters). **On Demand**
**ECEd 2040 Family Dynamics & Community Involvement** 3 Credits
The role of the family and community in the physical, cognitive, social, and emotional growth of the child in a diverse society. The areas of professionalism, program management, advocacy, and family development and the structure of the family will be the main topics. Laboratory observation and interaction. *Spring and Fall*

**ECEd 2050 Psychomotor Development** 3 Credits
The major theories of psychomotor development and the application to the development of the young child. Particular emphasis is placed on the positive development of motor skills. Laboratory observation and interaction. *On Demand Prerequisite(s):* ECEd 2020

**ECEd 2060 Development of Exceptional Children** 3 Credits
This course covers physical disabilities, mental retardation, sensory impairment, the gifted child, and the accessing and coordinating of community resources to ensure accurate diagnosis and appropriate treatment and services. Students will learn to interpret diagnostic instruments and to write programs to meet the special needs of exceptional children. Laboratory observation and interaction. *Spring and Fall*

**ECEd 2070 Developmental Assessment** 3 Credits
A study of the basic instruments and checklists leading to competency in screening children for developmental problems. The course will also consider appropriate community support programs and referral procedures. Laboratory observation and interaction. *On Demand Corequisite(s):* ECEd 2060

**ECEd 2080 Children’s Literature** 3 Credits
Examines the criteria for selecting appropriate literature for children. Discussion topics explore age levels, values taught through literature and literary and artistic qualities. *On Demand*

**ECEd 2085 Math & Science in Early Childhood** 3 Credits
A course on the standards, principles, and practices in teaching mathematics and science to children age birth to 9. Emphasis is on developing an integrated math and science curriculum that includes appropriate content, processes, environment and materials, and child-centered choices. *On Demand Prerequisite(s):* Department approval

**ECEd 2090 Creative Development** 3 Credits
A course dealing with theories, teaching techniques, and basic program components of early childhood art instruction. Emphasizes value of art in physical-mental and social-emotional growth of young children. Explores use of art media, creative play activities, and methods of incorporating creativity into other curricular areas. *On Demand*

**ECEd 2095 Language & Literacy Development in Early Childhood** 3 Credits
This course outlines the research-based principles and practices for providing children age birth to 9 a strong foundation in language and literacy within a developmentally appropriate approach. *On Demand Prerequisite(s):* ECEd 2015 and 2020; or department approval

**ECEd 2100 The Mentoring Teacher** 3 Credits
A study of the philosophy, principles, and methods of mentoring adults who have varying levels of training. Emphasis will be on the role of mentors as facilitators of adult learning while simultaneously addressing the needs of children, parents, and other staff. *On Demand Prerequisite(s):* Department approval

**ECEd 2110 Advanced Learning Environments** 3 Credits
This course focuses on the skill, knowledge, and materials development which are necessary in the provision of a developmentally appropriate environment for young children. Laboratory observation and interaction. *On Demand Prerequisite(s):* ECEd 2010 and 2015

**ECEd 2120 Administration of Child Care Centers** 3 Credits
A study of organization and administration practices applicable to the child care center. Topics of special consideration will be staff-management relations, state and local licensing standards, national accreditation, CDA standards, tax laws, legal liabilities, and the effect these topics will have on the care of the child. Laboratory observation and interaction. *On Demand*
ECEd 2130  Clinical Practicum I  2-3 Credits
Supervised practicum with a minimum of 15 clock hours in seminar and 90 clock hours in an early childhood program offering practical experiences in a learning environment for young children. A study of the physical and human qualities that combine to create a classroom that is safe and healthy and that promotes optimal learning.  *Spring and Fall*
Prerequisite(s): Department approval

ECEd 2140  Clinical Practicum II  2-3 Credits
Pre- or in-service supervised clinical experience with a minimum of 15 clock hours in seminar, 45 clock hours in an approved clinical site (NAEYC-, NAFCC-, or NSACA-accredited agency or TECTA-approved site), and 45 clock hours in student’s worksite.  *Spring and Fall*
Prerequisite(s): Department approval

ECEd 2150  Clinical Practicum III  2-3 Credits
Supervised practicum experience with a minimum of 15 clock hours in seminar and 45 clock hours of approved early childhood practical experience. Course focuses on the student’s demonstration of competencies that produce positive development outcomes for children age birth to 9.  *On Demand*
Prerequisite(s): Department approval

**ECONOMICS**

◆★ECN 2010  Principles of Economics  4 Credits
A presentation of basic economic concepts, including supply and demand, competition, money and banking, employment, inflation, and market models. Specific issues of resource allocation, current economic problems of the U.S., international economics and the world economy are studied.  *Spring and Fall*
Corequisite(s): College-level math

**EDUCATION**

EDU 1020  Reading, Writing & Math Teaching Methods  3 Credits
A model for teaching reading, writing, and math methods and skills in the K-6 educational setting. This course is designed for K-6 education paraprofessionals pursuing the academic requirements of the No Child Left Behind Act.  *On Demand*

EDU 1200  Student Leadership  1 Credit
This course is designed to provide a formally structured leadership education program for current student leaders involved in co-curricular programs and potential new student leaders that will engage them in active leadership training and personal development. Course is designed for Student Ambassadors, Tele-counselors, COSA members and other PSTCC student leaders. Registration for the course is by instructor approval only.  *On Demand*
Prerequisite(s): Consent of instructor

EDU 2010  Introduction to Teaching & Technology  3 Credits
An overview of school in America, the role and responsibility of the teacher, and an introduction to instructional technology principles and practices. The course combines classroom discussion with field observations as a means to analyze the teaching profession.  *Spring and Fall*
Corequisite(s): ENGL 1010

EDU 2030  Field Studies in Science Education  2 Credits
Background in elementary science education goals and pedagogies; training in cart demonstrations; design, preparation, implementation and evaluation of hands-on science activities in the elementary schools; and development of family science activities.  *On Demand*
Prerequisite(s): Successful completion of a college-level laboratory science course or two years of high school science
ELECTRICAL ENGINEERING

★ECE 2010 Circuits I 3 Credits
Fundamental laws of circuit analysis: Ohm’s law, Kirchoff’s voltage and current laws and the law of conservation of energy; circuits containing independent and dependent voltage and current sources; resistance, conductance, capacitance and inductance analyzed using mesh and nodal analysis, superposition and source transformations and Norton’s and Thevenin’s theorems; steady state analysis of DC and AC circuits; complete solution for transient analysis for circuits with one and two storage elements. Fall Prerequisite(s): CHEM 1110 and CSIT 1050
Corequisite(s): PHYS 2110

★ECE 2020 Circuits II W/Lab 4 Credits
Average, complex, real and imaginary power; effective value of voltage and current; three-phase circuits; delta and wye connections, power measurement using two wattmeters; complex frequency; sinusoidal forcing functions and natural response; resonance: general case, special cases in series and parallel circuits; scaling: magnitude and frequency; mutual inductance transformers as circuit elements; linear and ideal transformers as circuit elements; linear and ideal transformers; admittance, impedance and hybrid parameters; trigonometric and complex Fourier series. Course includes 3 hours of lecture and 3 hours of laboratory applications each week. Spring Prerequisite(s): ECE 2010 Corequisite(s): MATH 2110 and PHYS 2120

ELECTRICAL ENGINEERING TECHNOLOGY

EET 1001 Introduction to Electrical Engineering Technology 1 Credit
The student is introduced to electronic instrumentation (with particular emphasis on the multimeter and oscilloscope) and soldering techniques. An introduction to printed circuit board layout, schematic software, laboratory reports, personal computer operating systems and application software are covered. Basic professional ethics, time management and quality work habits are also discussed. Spring and Fall

EET 1012 Electrical Circuits I W/Lab 3 Credits
An introductory course in DC and AC circuits. Topics include atomic structure, current and voltage, resistance and power. Ohm’s Law and series and parallel circuits are covered. Transient response for capacitors and inductors are also discussed. The course includes fundamental AC concepts and phasor calculations for impedance, voltage, and current in RLC circuits. There will also be discussion of ladder logic and introduction to motors and transformers. Spring and Fall Prerequisite(s): EET 1012

EET 1022 Electrical Circuits II W/Lab 5 Credits
A continuation of EET 1012. This course extends DC topics to include network theorems such as mesh and nodal analysis, superposition, Thevenin and Norton equivalent circuits. AC topics are covered in more detail and include series and parallel resonance, filters, and three-phase power. Transformers and motors are also covered in more depth than in Circuits I. Spring and Fall Prerequisite(s): EET 1012

EET 1210 Active Devices I W/Lab 4 Credits
An introductory course in solid-state devices and the basic circuits in which they are used. Topics include semiconductor physics, diode circuits, bipolar transistor circuit analysis and FET circuit analysis. Spring and Fall Prerequisite(s): EET 1012

EET 1310 Digital Fundamentals W/Lab 4 Credits
A study of basic numbering systems, basic computer codes, Boolean algebra, basic logic gates, and logic simplification using Boolean algebra and Karnaugh maps. Topics include flip-flops, counters, shift registers, different types of memory (RAM, ROM, EPROM) and basic microprocessor principles. Spring and Fall

EET 2220 Active Devices II W/Lab 4 Credits
A study of integrated circuits and special purpose solid-state devices. Topics include silicon-controlled rectifiers, triacs, diacs, unijunction transistors, varistors, thermistors and varactors, timers, op amps and other linear devices and applications. Fall Prerequisite(s): EET 1210
EET 2310  Microprocessors I W/Lab  4 Credits
Basic microprocessor architecture with particular emphasis on the Motorola MC68HC11 68000. Topics include assembly language programming, C programming, branching, stacks, interrupts, and interfacing techniques, with many commonly used integrated circuits and interface chips, e.g., the PIA (parallel interface adapter), ACIA (asynchronous communication interface adapter), and programmable timers. Spring and Fall Prerequisite(s): EET 1310

EET 2601  Major Projects  2 Credits
A project course in which the student and instructor identify a project to be pursued by the student. The student is required to submit the project for acceptance, acquire the parts and build and test the completed product. The student is required to develop a technical report and make a presentation before his/her peers on the project. In addition, students are required to complete a team report and presentation on a current technology, discussing its impact on society. Spring Prerequisite(s): EET 2310

EET 2715  Microcomputer Architecture  4 Credits
This course provides an opportunity for students to obtain knowledge and skills necessary to service microcomputer hardware and supported peripherals. The course includes identifying parts of a PC; discussing the functions and interactions of all PC subsystems; identifying and troubleshooting common PC hardware problems; installing, replacing, and upgrading PC hardware components; and installing and troubleshooting PC peripherals such as printers and modems. On Demand Prerequisite(s): EET 1310 or consent of instructor

EET 2900  Special Topics  1-4 Credits
Special projects and applications in emerging technology. Content will vary, as this course is a means for classes to explore certain topics in depth not covered in the general curriculum. May be repeated for credit up to 9 hours. On Demand Prerequisite(s): Consent of instructor

EET 2910  Data Acquisition & Control  2 Credits
LabVIEW will be emphasized in solving problems in instrumentation and control. This course covers basic data acquisition and control techniques. On Demand Prerequisite(s): EET 1210 and 2310

EET 2920  Programmable Controllers  2 Credits
An introductory course in programmable logic controllers (PLCs) and basic applications in which they are used. Topics include an overview of PLCs, PLC hardware components, basics of PLC programming, development of fundamental PLC wiring diagrams and ladder programs, programming timers and counters, advanced programming techniques, and PLC control of motors and processes. Spring and Fall Prerequisite(s): EET 1012

ENGINEERING SCIENCE

★ENS 1510  Physics for Engineers I  4 Credits
Calculus-based study of basic physics concepts, including vectors, kinematics, Newton’s laws, work-energy and impulse-momentum. Introduction to teamwork. Introduction to the engineering disciplines, examination of engineering principles and design issues; oral and written presentation skills. Spring and Fall Corequisite(s): MATH 1910

★ENS 1520  Physics for Engineers II  4 Credits
Calculus-based study of basic physics concepts, including rotational dynamics, statics, oscillations, waves, fluids, heat and temperature, and first and second law of thermodynamics. Introduction to teamwork. Introduction to the engineering disciplines, examination of engineering principles and design issues; oral and written presentation skills. Spring and Fall Prerequisite(s): ENS 1510 and MATH 1910

★ENS 2021  Engineering Mechanics  2 Credits
Review of vector algebra. Statics of two-dimensional trusses and frames, including methods of joints and sections. Geometric properties of cross-sections, including first and second moments and location of centroid. Inertial properties of rigid bodies, including moment of inertia and location of mass center. On Demand Corequisite(s): ENS 1520
ENS 2310  Dynamics   3 Credits
Study of the kinetics and kinematics of rigid bodies. Also covered are such topics as centers of mass and mass moments of inertia. Spring and Fall  Prerequisite(s): MATH 1920  Corequisite(s): ENS 1520

ENGINEERING TECHNOLOGIES

ENGT 1000  Engineering Technology Applications & Communications  4 Credits
Students learn the basic skills and knowledge and gain the ability to successfully communicate in the technical environment. They learn to use various applications for word processing, problem solving, and graphing, along with generating presentation aids for required technical presentations. Outcomes are accomplished through project-based, hands-on use of computer applications required by the department, including Outlook Email, Internet, Windows, AutoCAD, MS Excel, MS PowerPoint, MS Word and other program-specific software. Spring and Fall  Prerequisite(s): MATH 1730  Corequisite(s): ENS 1520

ENGLISH

ENG A0700  Basic Writing   3 Credits
Writing skills basic to all tasks are taught: discovering and developing a topic, organizing ideas, revising written work, and proofreading. Standard English, spelling, and usage patterns are discussed and reinforced in the individual student’s work. Spring and Fall

DSPW 08000  Developmental Writing   3 Credits
By developing basic writing skills, this course prepares the student for college-level writing tasks. Students are introduced to multiparagraph compositions, summary writing, documentation methods and report formats. Spring and Fall  Prerequisite(s): Completion of or exemption from DSPR 0700 (Basic Reading)

ENGL 1010  English Composition I   3 Credits
Study and practice of expository and persuasive writing. Topics include critical reading and writing essays, with emphasis on research, writing processes and effective formatting. Spring and Fall  Prerequisite(s): Satisfactory placement test scores; or satisfactory completion of DSPW 0700 and 0800

ENGL 1020  English Composition II   3 Credits
Analytic writing based on the study of literature; study and practice of research writing. Spring and Fall  Prerequisite(s): ENGL 1010

ENGL 1030  Writing Workshop   1 Credit
Writing Center-based course for (1) students eligible to take degree-level English courses who want additional instruction in writing and (2) students taking degree-level English courses who are required by their instructors to work on certain aspects of their writing. Instruction in mechanics, paragraph development, essay structure, developing and documenting research papers, and writing about literature. Students in category 1 must register for the course by the end of the late registration period; students in category 2 must be assigned to the workshop no later than the 14th day of instruction. To receive credit, students must satisfy the competency requirements established at the beginning of the instructional period and must meet with the instructor assigned to them a minimum of 30 hours per semester, averaging two hours per week. Grading: P/F. Spring and Fall  Prerequisite(s): Enrollment in or completion of ENGL 1010

ENGL 1060  Basic Pronunciation—ESL   2 Credits
A course to help international students improve their English speaking skills and master the patterns of English spelling. Students practice the production of English sound patterns and related spelling patterns. Highly recommended to all ESL students who do not have excellent pronunciation. Spring and Fall
ENGL 1221 Non-native Speakers 5 Credits
Comprehensive review of English rhetorical structures. Extensive practice in reading, vocabulary and writing. A student may be admitted to this course by passing a comprehensive ESL placement test, which includes reading, writing, vocabulary and grammar. Spring and Fall Prerequisite(s): The student must achieve a score of 75 on the Michigan Test of English Language Proficiency and must complete an ESL writing sample that demonstrates the ability to perform at the college level as an ESL writer.

Enrichment Study for
Spring and Fall
Prerequisite(s): ENGL 1010

ENGL 1330 Non-native Speakers 5 Credits
Intensive practice in composition organization and development. A student may be admitted to this course by passing a comprehensive ESL placement test, which includes reading, writing, vocabulary and grammar. The course may be taken before or with ENGL 1010. Spring and Fall Prerequisite(s): The student must achieve a score of 75 on the Michigan Test of English Language Proficiency and must complete an ESL writing sample that demonstrates the ability to perform at the college level as an ESL writer.

ENGL 2110 American Literature I 3 Credits
A study of the development of American literature from its beginnings to the War Between the States. Spring and Fall Prerequisite(s): ENGL 1020

ENGL 2120 American Literature II 3 Credits
American literature from the War Between the States to the present. Spring and Fall Prerequisite(s): ENGL 1020

ENGL 2210 British Literature I 3 Credits
A study of the development of British literature from three periods: Anglo-Saxon and Middle Ages, Renaissance and Restoration, and 18th Century. Fall Prerequisite(s): ENGL 1020

ENGL 2220 British Literature II 3 Credits
A study of the development of British literature from three periods: Romantic, Victorian and 20th Century. Spring Prerequisite(s): ENGL 1020

ENGL 2310 World Literature I 3 Credits
Ancient, Medieval and Renaissance literature. Spring and Fall Prerequisite(s): ENGL 1020

ENGL 2320 World Literature II 3 Credits
Enlightenment, Romantic and Modern literature. Spring and Fall Prerequisite(s): ENGL 1020

ENGL 2331 African-American Literature 3 Credits
This course introduces students to literature written by major African-American writers. It examines the vernacular (voice), the conventional literary devices and the diverse writing strategies. It also covers the universal themes found in the literature of the following periods: 1865-1919 (Narratives of Slavery and Literature of the Reconstruction to the New Renaissance) and 1919-1940 (the Harlem Renaissance). The course examines the writing of African-Americans found in the following genres: essays, short stories, drama and the novel. The course seeks to improve students’ abilities to read critically, to write analytically and to substantially increase their knowledge of African-American literary traditions and writers. On Demand Prerequisite(s): ENGL 1020

ENGL 2510 Introduction to Poetry 3 Credits
A study of poetry as a unique genre of literature with an emphasis on the critical tools for reading poetry. Spring and Fall Prerequisite(s): ENGL 1020

ENGL 2520 Introduction to Drama 3 Credits
Critical tools for perceptive reading of play texts. Writing emphasis course. On Demand Prerequisite(s): ENGL 1020

ENGL 2630 Introduction to Creative Writing 3 Credits
Writing of poetry and short fiction in combination with study of models and techniques. Spring and Fall Prerequisite(s): ENGL 1020
ENGL 2660 Introduction to Playwriting 3 Credits
Writing of plays in combination with study of models and techniques. On Demand Prerequisite(s): ENGL 1010 or consent of instructor.

ENGL 2670 Introduction to Screenwriting 3 Credits
Writing of screenplays in combination with study of models and techniques. On Demand Prerequisite(s): ENGL 1010 or consent of instructor.

★ENGL 2950 Business & Technical Writing 3 Credits
Instruction and practice in the forms and techniques of business and technical writing and editing on the computer, with an emphasis on basic writing skills when necessary. It is recommended that students be able to type 20 wpm. Spring and Fall Prerequisite(s): ENGL 1010

FINANCE

FIN 2000 Financial Management 3 Credits
A survey of the essentials of business finance as applied to corporations, small firms and governmental units. Topics included financial needs, institutions, and instruments; concepts of risk and return; ratio analysis; capital budgeting; interest rates; and liability management. Spring and Fall Prerequisite(s): ACC 2000 Corequisite(s): MATH 1530

FIN 2450 Real Estate Principles & Salesmanship 4 Credits
The course examines the fundamental principles underlying real estate brokerage activities, as well as skills needed to sell real estate property. The treatment of these principles in Tennessee law will also be addressed. Fall

FRENCH

★FREN 1010 Beginning French I 3 Credits
Introduction to reading, writing, speaking and understanding the French language within a cultural context. Language laboratory required; listening and practice materials on tape, coordinated with a workbook and computer exercises. Spring and Fall

★FREN 1020 Beginning French II 3 Credits
Vocabulary building, grammar, conversation, and culture. Language laboratory required; listening and practice materials on tape, coordinated with a workbook. Spring and Fall Prerequisite(s): FREN 1010 or one year of high school French

◆★FREN 2010 Intermediate French I 3 Credits
Grammar, conversation, and aspects of French culture. Language laboratory required; listening and practice materials on tape, coordinated with a workbook and computer exercises. Spring and Fall Prerequisite(s): FREN 1020 or equivalent

◆★FREN 2020 Intermediate French II 3 Credits
An introduction to French literature and film and a review of conversation skills. Language laboratory required; listening and practice materials on tape. Spring and Fall Prerequisite(s): FREN 2010 or equivalent

GEOGRAPHIC INFORMATION SYSTEMS

GIS 1010 Fundamentals of GIS 3 Credits
Presents an overview of the GIS profession and the opportunities available in the field. Presents introductory content on typical business and technical applications, data, software, and techniques used to accomplish GIS projects. When possible, local GIS professionals present seminars on their work. Students receive hands-on experience with global positioning system (GPS) and GIS hardware and software. Students learn the basics needed for advanced GIS courses. This course is also designed for students who want to become generally familiar with GIS technology. Students should have a working knowledge of Microsoft Windows before enrolling in the course. Spring and Fall
GIS 1020 Digital Images & Base Maps 3 Credits
Presents software and techniques used to acquire and manage digital images applied to make GIS base maps. Introduces methods that enable a GIS professional to register and rectify raster data for use in GIS projects. Students learn digital photogrammetric and field GPS methods that make it possible to create an orthophotograph from historical aerial photographs and to mosaic multiple aerial photographs into a seamless image for GIS use. On Demand 
Prerequisite(s): GIS 1010

GIS 1030 GIS Data Sources & Quality 3 Credits
Provides a rigorous opportunity to become knowledgeable about sources and quality of a variety of commercial and public data available via the Internet. Much GIS data already exists but is difficult to find, often has quality problems and may only be available in certain file formats. The GIS professional must be able to evaluate data problems and be able to efficiently acquire the data and convert it to his/her use. Students examine a variety of GIS data, evaluate the meta-data and determine the quality as related to the expected end use. On Demand 
Prerequisite(s): GIS 1010

GIS 1110 Intro to GIS Database Management 3 Credits
Introduces the concept of database structure to GIS projects and provides skill training in the use of relational databases for spatial and multiple table queries. Structured Query Language (SQL) is used. Students design, develop, maintain, query and modify a variety of GIS databases. Database importing, exporting and file conversion are also covered. On Demand 
Prerequisite(s): GIS 1010

GIS 1120 Desktop GIS Software Tools 3 Credits
Instruction in the use of commercial GIS viewers and associated tools used in various courses and GIS projects. The specific product offered will vary depending on student needs and the commercial success of the software. The course will provide training on the use of products that are currently commercially viable. May be repeated for credit up to 9 hours with consent of GIS coordinator. On Demand 
Corequisite(s): GIS 1010 or consent of GIS coordinator

GIS 1200 Global Positioning Technology 3 Credits
Provides experience in planning and executing efficient data collection ranging from digitizing existing maps and images to collecting spatial feature attribute data with global positioning technology and creating GIS data layers. Students will become thoroughly familiar with GPS hardware and software and scanning and digitizing techniques to create and update GIS databases. Spring 
Prerequisite(s): GIS 1010

GIS 1600 Business Geographics 3 Credits
Focuses on the business applications of GIS primarily concerned with the analysis of customer and demographic data in the context of the physical world. Business applications deal with the analysis of alternative retail locations, the evaluation of market opportunities and practical logistics. Demographic databases are queried and results visualized addressing specific business decisions. Spring 
Corequisite(s): GIS 1010 or consent of GIS coordinator

GIS 2030 Planning & Executing Projects 3 Credits
Teaches the reality of contemporary GIS work that requires cost-effective planning and execution of projects that meet client needs and budgets. Student teams plan, bid, and execute small GIS projects and are evaluated on their efficiency and effectiveness in meeting client need, cost, teamwork and profitability criteria. Prepares students for independent work in GIS 2050. On Demand 
Prerequisite(s): GIS 1010 and 1110

GIS 2050 Independent GIS Projects 3 Credits
This course is carried out independently by the student after consultation with the GIS advisor to specify the project deliverables. Results of the project work are reported as a seminar to simulate delivery of the final product to the client. On Demand 
Prerequisite(s): GIS 2030
GIS 2120  Image & Raster GIS Analysis  3 Credits
Provides training in the use of advanced image and raster GIS tools, including the analysis of multispectral satellite data now widely available. Students will also be trained to use 3D tools to visualize GIS data. Data from the Endeavor satellite that made the first 3D map of the Earth will also be incorporated. Provides the analytical basis for the preparation of raster data for use in GIS 2510. On Demand Prerequisite(s): GIS 1010 and 1020; or consent of GIS coordinator

GIS 2410  GIS Web Applications  3 Credits
Provides the opportunity for students to use the latest Internet mapping tools to deliver GIS and location-based services via the Internet. Students will be trained to deliver GIS applications on the Internet using a variety of tools and emerging raster and vector standards. On Demand Prerequisite(s): GIS 1010 or consent of GIS coordinator

GIS 2510  GIS Software Systems  3 Credits
Instruction in the use of complete commercial GIS systems used in various GIS courses and projects. The specific system offered will vary depending on student needs and the commercial success of the software system. The course will provide training on the use of systems that are currently commercially viable. May be repeated for credit up to 9 hours with consent of GIS coordinator. On Demand Prerequisite(s): GIS 1010 or consent of GIS coordinator

GIS 2600  Location Based Services  3 Credits
Examines the latest trends in business geographics and location-based Services (LBS) and provides students with training in the latest tools and applications products. This technology is developing rapidly as a combination of GIS, GPS, database management, Internet and wireless communication technologies. On Demand Prerequisite(s): GIS 1010 and 1110 and 1600; or consent of GIS coordinator

GIS 2710  GIS Cartography  3 Credits
Combines cartographic principles with GIS technology and practice to provide students with experience in creating their own finished maps. Students learn to prepare their own maps by using GIS map-making tools to apply a variety of vector and raster data. Emphasis is given to the understanding of map source data and the quality of finished GIS cartographic products. Large-format finished cartographic products are required as class projects. On Demand Prerequisite(s): GIS 1010 and 1020; or consent of GIS coordinator

GIS 2810  Special Topics in GIS  1-4 Credits
Study and discussion of a selected topic in geographic information systems. Content will vary, as this course is a means for classes to explore certain GIS topics in depth. Classes may be taught by visiting professors. May be repeated for credit when a different topic is taught. On Demand Prerequisite(s): GIS 1010 or consent of GIS coordinator

GEOGRAPHY

◆GEOG 1000  Introduction to Geography  3 Credits
This course provides an introduction to geography with emphasis on place-name countries, bodies of water, cities and development of a geographical vocabulary. Spring and Fall

GEOLOGY

◆★GEOL 1040  Physical Geology  4 Credits
An introduction to study of the Earth. Physical processes that continuously change the Earth’s surface and interior are studied to understand the origins of rocks, volcanoes, earthquakes, continents, oceans, and the atmosphere. Course includes three hours of lecture and three hours of laboratory applications each week. Fall

◆★GEOL 1050  Historical Geology  4 Credits
A study of the interrelated physical and biological changes occurring during Earth’s 4.5-billion-year history. Geologic, biologic, and radiometric dating principles are used to interpret the rock and fossil records of change occurring on continents and in ocean basins that have affected the evolution of life on Earth. Course includes three hours of lecture and three hours of laboratory applications each week. Spring Prerequisite(s): GEOL 1040
**GEOL 1300**  
The Environment W/Lab  
4 Credits

A study of the Earth’s environment and the natural and anthropogenic impacts that affect the environment. A review of Earth’s geology provides a basis for discussing environmental issues stemming from the rapid increase in world population and the associated demands for resources and energy. Focus is on current environmental issues such as water and air pollution, global warming, managing waste discharges, energy production, and how to manage change to ensure a high quality environment for generations that follow. Environmental issues will be further explored in weekly laboratory exercises. *Spring and Fall Prerequisite(s): GEOL 1040; no prerequisite for Career/Technical majors*

**GEOL 1310**  
Concepts of Earth Science  
3 Credits

This course covers the basic principles from the fields of geology, oceanography, meteorology and astronomy. Topics include map interpretation, minerals and rocks, processes acting at the Earth’s surface and within the Earth, plate tectonics, geologic time and dating, water movements, ocean floor, weather and climate, composition and motions of the Earth, solar systems, phases of the moon, origin and life cycles of stars, and galaxies. This course only counts toward the education program at Tennessee Technological University and Lincoln Memorial University. *Spring and Fall*

**GERMAN**

**GERM 1010**  
Beginning German I  
3 Credits

Introduction to German. *Fall*

**GERM 1020**  
Beginning German II  
3 Credits

Continuation of GERM 1010. *Spring Prerequisite(s): GERM 1010 or one year of high school German*

**GERM 2010**  
Intermediate German I  
3 Credits

Reading, writing and speaking German. *Fall Prerequisite(s): GERM 1020 or equivalent*

**GERM 2020**  
Intermediate German II  
3 Credits

Continuation of GERM 2010. *Spring Prerequisite(s): GERM 2010 or equivalent*

**HIGH PERFORMANCE COMPUTING**

**HPC 1010**  
HPC Internetworking Security  
4 Credits

This course provides instruction in understanding and implementing a comprehensive WAN-level security alternative. While many knowledgeable information systems professionals are aware of risks and threats, the nature and available defensive tools and techniques are often a great mystery. Topics include security architecture, PIX firewalls, router-based firewalls, encryption, IPSec and VPNs. *Fall*

**HPC 1020**  
HPC Internetworking & Grid Technology  
4 Credits

This course provides instruction in the planning of high-speed networks using Cisco routers and switches, along with emphasis on the dynamics of communications related to remotely accessing massively parallel computers (HPC). Topics include internetworking functions of the OSI model, data encapsulation conversion, IP addressing and subnetting, TCP/IP network layer protocols, single and multistage interconnection networks, grid internetworking, optimization techniques, load balancing, bandwidths, and data communications. *Fall Corequisite(s): HPC 1010 or consent of instructor*

**HPC 2000**  
HPC Security Management  
4 Credits

This course helps network professionals understand the risks to modern networks and how to install, configure, operate, manage, and verify Cisco network security products and Cisco IOS software features that enable network security. *On Demand Prerequisite(s): HPC 1010 or consent of instructor*
HPC 2007  HPC Intrusion Detection & Countermeasures  4 Credits
This course is a practical, comprehensive solution to designing, deploying and maintaining network defenses for the HPC clusters. It discusses perimeter components, such as firewalls, VPNs, routers, and intrusion detection systems, and it explains how to integrate them into a unified whole to meet real-world business requirements. **On Demand** Prerequisite(s): HPC 1010 or consent of instructor

HPC 2010  HPC Security Applications & Technology  4 Credits
This course is a guide to computer forensics and investigation. It presents methods to properly conduct a computer forensics investigation, beginning with a discussion of ethics, while mapping the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. **On Demand** Prerequisite(s): HPC 1010 or consent of instructor

HPC 2020  Advanced HPC Internetworking & Grid Technology  4 Credits
This course is a continuation of HPC 1020 and provides instruction in the planning, installation, and administration of high-speed routers, switches, high-performance networking, and introductory WAN security issues. Topics include Cisco router elements, network service, TCP/IP transport-layer protocols, managing configuration files, IOS software commands, protocol address resolution, router topology, IP addressing and access list operations, I/O architecture, performance modeling, high-speed communication networks, grid internetworking, and security architecture. **On Demand** Prerequisite(s): HPC 1020 or consent of instructor

HPC 2300  HPC Architecture & System Administration  4 Credits
This course reviews microprocessors. Topics include classification and management of clusters, an in-depth study of the system board components and memory management, supporting input and output devices, troubleshooting and disaster recovery techniques, working with high-speed networks, distributed and shared memory systems, hardware design issues, vector parallel machines and communication issues of remote massively parallel machines and clusters, and the assembly and maintenance of PC clusters. **Fall** Corequisite(s): CSIT 2411 or consent of instructor

HPC 2400  Introduction to Parallel Programming  4 Credits
Parallel computing fundamentals including models of parallel computing, architecture taxonomy, memory architecture, performance, design, and scalability considerations, parallel programming paradigms, techniques and issues in parallel program creation, and parallel programming examples. **On Demand** Prerequisite(s): HPC 1010 or consent of instructor

HPC 2500  MPI Programming  4 Credits
Introduction to MPI programming including data types, functions, collective operations, language bindings, implementation issues, error handling, process creation and management, performance tuning, and I/O operations. **On Demand** Prerequisite(s): HPC 1010 or consent of instructor

HPC 2600  High Performance & Distributed Computing  4 Credits
A study of the Java programming language involving distributed and parallel applications. Emphasis is on distributed-object computing, multithreading, networking, remote objects, Java, and different flavors of parallel programming models and Web-based parallel computing. Concepts of exception handling, debugging, documentation and object-oriented programming are an integral part of the course. **On Demand** Prerequisite(s): CSIT 1541 and HPC 2400; or consent of instructor

HPC 2700  HPC Data Mining  4 Credits
Data mining is the automated extraction of hidden predictive information from databases. This technology is used to recognize patterns in data in order to discover new knowledge. This course provides an introduction into the use of existing tools developed for specific applications and background information about the development of new tools. Special emphasis is placed on case studies using high-performance computing methods and techniques, including pattern recognition, analysis, and visualization. Class projects are designed to use HPC hardware and software. **On Demand** Prerequisite(s): CSIT 1541 and HPC 1010; or consent of instructor
HPC 2800  Advanced HPC Applications & System Architecture  4 Credits
Provides training in advanced PC cluster design, deployment and management techniques, with emphasis on cluster building components such as the Linux and Windows operating systems, networking and clustering software. Topics include high-availability (HA) clusters, high-performance computing (HPC) clusters, open-source and commercially available tools for clustering, cluster performance measurement and troubleshooting techniques, and cluster optimization techniques for a wide variety of scientific and industrial applications. On Demand
Prerequisite(s): CSIT 2411 and HPC 2300

HPC 2900  HPC Special Topics  4 Credits
This course provides an avenue to present state-of-the-art technology courses in a timely manner. The topics allow an array of High Performance Computing courses to be delivered while technical innovations are moving toward the mainstream, thus providing cutting-edge technology today. May be repeated for credit up to 8 hours when a different topic is taught. On Demand
Prerequisite(s): consent of instructor

HPC 2950  HPC Practicum  2-4 Credits
Supervised work experience. Individual conferences are arranged instead of class attendance. On Demand
Prerequisite(s): Successful completion of all HPC coursework through the third semester or consent of instructor

HIST 1010  Western Civilization I  3 Credits
A survey of the ancient Western world to 1715. Spring and Fall

HIST 1020  Western Civilization II  3 Credits
A survey of the Western world from 1715 to the present. Spring and Fall

HIST 1110  World Civilization I  3 Credits
A survey of world history from the emergence of human civilizations to the 1500s. The course focuses on finding the order, meaning, and purpose in human events through a comparative study of the Western and non-Western historical experiences. Fall

HIST 1120  World Civilization II  3 Credits
A survey of world history from the 1500s to contemporary times. The course focuses on finding the order, meaning, and purpose in human events through a comparative study of the Western and non-Western historical experiences. Spring

HIST 2010  U.S. History I  3 Credits
A survey of U.S. history from settlement to 1877. Spring and Fall

HIST 2020  U.S. History II  3 Credits
A survey of U.S. history from 1877 to the present. Spring and Fall

HIST 2040  African-American Studies  3 credits
A multidisciplinary approach to the African-American experience during the 19th and 20th centuries. This course fulfills the Social/Behavioral Sciences requirement for University Parallel and Career/Technical students. On Demand

HOSPITALITY
HSP 1200  Introduction to Hospitality I  3 Credits
This course is an introduction to the hospitality industry, with emphasis on the broad spectrum of hospitality organizations and career opportunities. Spring and Fall

HSP 1300  Facilities Operation & Maintenance  3 Credits
This course is designed to offer information to hospitality managers who manage the physical plant of a hospitality facility. Provides understanding of terminology vital for communication with engineering and maintenance. On Demand
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSP 2000</td>
<td>Purchasing</td>
<td>3</td>
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<td></td>
<td>This course is intended to focus on the principles of how to select and procure items to be utilized in the hospitality industry. <strong>Fall Prerequisite(s):</strong> HSP 1200</td>
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<tr>
<td>HSP 2050</td>
<td>Cost Control</td>
<td>3</td>
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<td>This course is intended to provide the student with the methodologies and tools to control food, beverage, labor and other costs within a hospitality business. The course regularly uses basic mathematics. <strong>Spring Prerequisite(s):</strong> HSP 1200</td>
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<tr>
<td>HSP 2100</td>
<td>Professional Beverage Management</td>
<td>3</td>
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<td></td>
<td>This course deals with the management of beverages within the hospitality industry context. The course provides students with a history of beverages within the industry as well as knowledge of the products, facilities, regulations and mixology. <strong>On Demand Prerequisite(s):</strong> HSP 1200</td>
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<tr>
<td>★HSP 2200</td>
<td>Introduction to Hospitality II</td>
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<td>This course is an in-depth introduction to hospitality management with an emphasis on the functions of the hospitality manager. It includes the historical and future perspectives of the hospitality industry. <strong>Spring Prerequisite(s):</strong> HSP 1200</td>
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<tr>
<td>★HSP 2210</td>
<td>Travel/Tourism Administration</td>
<td>3</td>
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<td>This course covers modes of travel and accommodations, travel behavior, the sociology of tourism, tourism components and supply, and tourism marketing and research. <strong>Fall Prerequisite(s):</strong> HSP 1200</td>
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<tr>
<td>HSP 2250</td>
<td>Professional Catering</td>
<td>3</td>
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<td>This course examines the requirements to start and operate a catering company. Topics of discussion include kitchen equipment, regulations, operations and business planning. <strong>On Demand Prerequisite(s):</strong> HSP 1200</td>
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<tr>
<td>★HSP 2260</td>
<td>Hotel Operations</td>
<td>3</td>
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<td>This course familiarizes students with the development of the lodging industry in the United States and different functions within a hotel. The course focuses on the fundamental application of procedures used to effect a smooth transition from check-in to check-out. <strong>Spring Prerequisite(s):</strong> HSP 1200</td>
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<tr>
<td>★HSP 2300</td>
<td>Food &amp; Beverage Operation</td>
<td>3</td>
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<td>This course covers restaurant and food service operations, including facilities capabilities, personnel management, daily operations, sanitation, and facilities readiness. <strong>Fall Prerequisite(s):</strong> HSP 1200</td>
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<tr>
<td>★HSP 2320</td>
<td>Quantity Food Production</td>
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<td>This course is a study and application of principles of quantity food production using institutional equipment and procedures. It includes quantity food planning, procurement and service. <strong>Spring Prerequisite(s):</strong> HSP 2200</td>
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<tr>
<td>HSP 2500</td>
<td>Travel Geography</td>
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<td>This course examines destination geography, including attractions, travel modes and accommodations. <strong>On Demand Prerequisite(s):</strong> HSP 2200</td>
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<tr>
<td>HSP 2950</td>
<td>Hospitality Internship</td>
<td>3</td>
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</table>
|             | This course is a supervised work experience in the hospitality field requiring a minimum of 135 work hours. Work activities can range from entry-level to management training. Individual conferences are arranged instead of class attendance. **On Demand Prerequisite(s):** Second-year status, a minimum 2.5 GPA in HSP courses, pursuit of an A.A.S. degree as a Hospitality major, a completed internship application submitted to the coordinator of the BCT internships prior to the beginning of the enrolled term. Application is available on the Web: www.pstcc.edu/departments/bctpi.
HUMANITIES

HUM 2100 Leadership Development 3 Credits
A course designed to provide students with the fundamental knowledge and skills required of effective leaders. Experiential learning exercises, interactions with peers and college and community leaders, and written assignments are combined to illustrate the application of strategies required to successfully communicate with others, facilitate group or organizational activities, constructively resolve conflicts, and plan and implement activities or programs. Issues of diversity, personal growth and interpersonal relationships are explored within the context of leadership development. Fall Corequisite(s): ENGL 1010

◆ HUM 2810 Introduction to Film Studies 3 Credits
An overview of film history using selected world cinema feature films. Basic elements of film expression for understanding and analyzing narrative cinema. Some research is required. Spring and Fall

INTERIOR DESIGN TECHNOLOGY

IDT 1001 Introduction to Interior Design 3 Credits
An overview of the profession of interior design. An introductory study of the basic elements and principles for creative, comfortable and aesthetically pleasing interiors. An emphasis is placed on the use of interior materials. Professional designer techniques are introduced. Spring and Fall

IDT 1030 History of Interiors 3 Credits
Interior architecture, decoration and decorative arts within cultural context, ancient through 19th century. Emphasis on Italy, England, France and America. Fall

IDT 1100 Materials & Process 3 Credits
Introduction to materials and processes used in interior design and related industry. Course topics will include floor treatments, wall treatments, window treatments, cabinetry, construction, building processes and codes. Spring and Fall Corequisite(s): ENGL 1010

IDT 1310 Fundamentals of Architectural Drafting 3 Credits
A basic architectural drafting course that covers the fundamental techniques and principles necessary to understand and produce architectural drawings. Spring and Fall

IDT 1360 AutoCAD & CAD Applications for Interior Design 3 Credits
Computer-aided design and drafting skills for interior design applications using AutoCAD and other CAD applications. Word-processing and spreadsheet software are also incorporated to prepare professional technical reports. Spring and Fall Prerequisite(s): IDT 1310

IDT 2030 Modern Interiors & Architecture 3 Credits
Interior architecture, furniture, design philosophies, 19th-century roots of the 20th-century developments, Europe and America; design as influenced by movements in fine arts, technological advances and cultural context. Spring Prerequisite(s): IDT 1030

IDT 2050 Contract Design 3 Credits
Laws, codes, standards and specifications relative to nonresidential interiors. On Demand Prerequisite(s): IDT 1001 and 1100 and RCS 1200

IDT 2500 Special Topics 1-3 Credits
Special projects and applications in emerging technology. Content will vary, as this course is a means for classes to explore certain topics in depth not covered in the general curriculum. May be repeated for credit up to 9 hours. On Demand Prerequisite(s): Consent of instructor

IDT 2611 Kitchen & Bath Planning 3 Credits
Integration of task planning, movements, sensory mechanism, and aesthetic consideration into supportive and attractive furnishings, equipment, accessories, and lighting in kitchen and bath. On Demand Prerequisite(s): IDT 1001 and 1100 and 1310
IDT 2630  Presentation & Visualization Techniques  3 Credits
A variety of skills, techniques, methods and materials used to visually communicate design concepts. Application of perspective, sketching, rendering and other presentation methods to graphically delineate three-dimensional space. On Demand Prerequisite(s): ART 1011 and 1110 and IDT 1001 Corequisite(s): IDT 2640

IDT 2640  Residential Design & Construction  3 Credits
Principles of spatial organization, creative problem solving and communication techniques in residential design. Integrates working drawings, materials and processes, presentation methods, and residential design. On Demand Prerequisite(s): IDT 1001 and 1310 and 1360 and 2611 Corequisite(s): IDT 2630

IDT 2900  Interior Design Internship  3 Credits
Course provides actual work experience in the design field. Individual conferences are held in lieu of class attendance. Spring and Fall Prerequisite(s): Consent of instructor

JOURNALISM

★JOU 2000  Newswriting  3 Credits
Writing for print and electronic media under deadline. Gathering information by using records, documents, observation and interviewing. Emphasis on library resources and current events. Basic style and editing based on AP Stylebook and Libel Manual. Spring and Fall Prerequisite(s): CMN 1500 and ENGL 1020 and keyboarding skills

★JOU 2030  Editing  3 Credits
Methods and practice in judging news, editing copy, writing headlines, and designing newspapers and magazines. Emphasis on precise word use and news display. Writing skills specific to newspapers and magazines. Spring and Fall Prerequisite(s): ENGL 1010 or JOU 2000

★JOU 2700  Public Relations Principles  3 Credits
Theories and principles of public relations. Overview of public relations in the management of business, government, institutions and organizations. Brief case studies and public relations projects. On Demand Prerequisite(s): CMN 1500

JOU 2998  Journalism Internship  3 Credits
This course is designed to afford students practical work experience in the field of journalism, public relations, broadcasting or advertising. On Demand Prerequisite(s): CMN 1500 and consent of instructor Corequisite(s): If internship is in a journalism or public relations environment, student must be enrolled in or have already completed JOU 2030 and/or JOU 2700

LAW (SEE PARALEGAL STUDIES)

LIBERAL ARTS STUDIES

LAS 2020  Special Topics in Liberal Arts  3 Credits
Study and discussion of a selected topic in liberal arts. Content varies. May be repeated for up to 6 hours of credit. Spring and Fall

MANAGEMENT

MGT 2000  Principles of Management  3 Credits
A study of management through analyzing managerial functions of planning, organizing, leading and controlling. Spring and Fall

MGT 2030  Team Leadership  3 Credits
A study of team leadership techniques needed for successful management. Student teams study the application of modern team management principles to leading, motivating, delegating and disciplining. Spring and Fall Prerequisite(s): MGT 2000 or HSP 1200
MGT 2050 Human Resources 3 Credits
A study of principles of human resource management, including equal employment law, recruitment, selection, and development and maintenance of the human resource. Spring and Fall Prerequisite(s): MGT 2000 or HSP 1200

MGT 2100 Information Systems 3 Credits
An introduction to information systems. The course takes the user perspective in the analysis of organizational information needs, system design, system acquisition and organizational impact of the system. Fall Prerequisite(s): MGT 2000; and OST 1211 or 1005

MGT 2160 Quality Improvement 3 Credits
This course is an introduction to quality management as a system through the application of statistical process control, W. Edwards Deming’s management philosophy and various quality management techniques. Spring Prerequisite(s): MGT 2000 Corequisite(s): MATH 1530 or department approval

MGT 2170 Project Management 3 Credits
This course is a study of project management including project software, project planning, cost and control. Fall Prerequisite(s): MGT 2000 Corequisite(s): MATH 1530 or department approval

MGT 2180 Team Practicum 3 Credits
A management simulation which is a culmination of the student’s academic studies that gives experience in applying theories and skills from various business disciplines to self-managed team problem solving through the use of readings, case studies, simulations, role plays and guest speakers. Spring Prerequisite(s): MGT 2030 and 2050 and department approval

MGT 2240 Business Capstone 3 Credits
A project-oriented course designed to require students working in cross-functional teams to apply what they have learned in their major curriculum to the development of a complex entrepreneurial project. Emphasizes necessity of informed decision making and planning in all phases of business. Spring Prerequisite(s): ACC 2110 and MGT 2000 and MKT 2200 and department approval

MGT 2471 Management Internship 3 Credits
This course is a supervised work experience requiring a minimum of 135 hours in a management training capacity. Individual conferences are arranged instead of class attendance. On Demand Prerequisite(s): Completion of 15 hours of MGT courses with a minimum 2.5 GPA in MGT courses; seeking an A.A.S. degree as a Management major; and a completed internship application submitted to the Coordinator of BCT Internships prior to enrollment in the course and the beginning of the term. Application is available on the Web: www.pstcc.edu/departments/bctpi.

MARKETING (SEE E-COMMERCE/MARKETING)

MATHEMATICS

DSPM 0700 Basic Mathematics 3 Credits
This course includes the study of integers, fractions, decimals, percents, ratios, proportions, measurements, equations and related applications. The TI-83 or TI-83 Plus calculator is required and used throughout the course. Spring and Fall

DSPM 0800 Elementary Algebra 3 Credits
This course includes the study of real numbers, algebraic expressions, functions, linear equations and inequalities, graphing, systems of linear equations and inequalities, and related applications. The TI-83 or TI-83 Plus calculator is required and used throughout the course. Spring and Fall Prerequisite(s): DSPM 0700 or equivalent math placement score
DSPM 0850  Intermediate Algebra  3 Credits
This course includes the study of quadratics, rational and radical functions and their graphs, polynomial expressions, quadratic equations and inequalities, rational expressions and equations, radical expressions and equations, and related applications. The TI-83 or TI-83 Plus calculator is required and used throughout the course. Spring and Fall Prerequisite(s): DSPM 0800 or equivalent math placement score

◆★MATH 1010  Survey of Mathematics  3 Credits
Topics include critical thinking skills, problem solving, logic, geometry with some right triangle trigonometry, measurement, consumer math, probability and statistics. Spring and Fall Prerequisite(s): High school algebra I and algebra II and ACT math score of at least 19; or DSPM 0850 or equivalent math placement score

◆★MATH 1130  College Algebra  3 Credits
This course is designed for students who are not in University Parallel/College Transfer programs of science, mathematics, engineering, or computer science. Topics include linear, polynomial, rational, exponential, and logarithmic functions and their graphs and applications; linear and nonlinear models. Spring and Fall Prerequisite(s): High school algebra I and algebra II and ACT math score of at least 19; or DSPM 0850 or equivalent math placement score

★MATH 1410  The Structure of the Number System  3 Credits
Recommended for prospective elementary education teachers. Topics include problem solving, sets and relations, numeration systems, integers, elementary number theory, rational numbers, decimals and algebraic applications. On Demand Prerequisite(s): High school algebra I and algebra II and geometry and ACT math score of at least 19; or DSPM 0850 or equivalent math placement score

★MATH 1420  Geometry/Statistics  3 Credits
Recommended for prospective elementary education teachers. Topics include elementary probability and statistics, basic plane and 3-space geometry, congruence and similarity, constructions, transformations, area, volume, surface area and measurements. On Demand Prerequisite(s): High school algebra I and algebra II and geometry and ACT math score of at least 19; or DSPM 0850 or equivalent math placement score

◆★MATH 1530  Elementary Probability & Statistics  3 Credits
Topics include elementary probability theory, concepts of descriptive statistics, discrete and continuous distributions, hypothesis testing, confidence intervals, sample sizes, correlation, regression, multinominal and contingency tables. Noncalculus based. Computer applications will be investigated. Spring and Fall Prerequisite(s): High school algebra I and algebra II and ACT math score of at least 19; or DSPM 0850 or equivalent math placement score

◆★MATH 1630  Finite Mathematics  3 Credits
Linear functions and applications, interest, annuities, amortization, systems of linear equations, including Gauss-Jordan elimination, and matrix theory. Linear programming using graphical and simplex methods. ACT math score of at least 21 is recommended. Spring and Fall Prerequisite(s): High school algebra I and algebra II and precalculus and satisfactory placement test scores; or MATH 1130 or 1710

◆MATH 1710  Precalculus Algebra  3 Credits
Precalculus algebra for students in University Parallel/transfer programs of science, mathematics, engineering or computer science. This is one of two courses in a sequence that prepares students for Calculus I. It provides a review of algebraic, logarithmic and exponential functions. Topics include systems of equations and inequalities, maximization, exponential and logarithmic functions, and complex numbers. On Demand Prerequisite(s): High school algebra I and algebra II and ACT math score of at least 19; or DSPM 0850 or equivalent math placement score
★MATH 1720 PreCalculus Trigonometry 3 Credits

PreCalculus trigonometry for students in University Parallel/transfer programs of science, mathematics, engineering or computer science. This is one of two courses in a sequence that prepares students for Calculus I. It provides a review of plane trigonometry and other analytical aspects used in calculus. This course is a prerequisite for MATH 1910 if high school trigonometry has not been completed. On Demand Prerequisite(s): High school algebra I and algebra II and ACT math score of at least 19; or DSPM 0850 or equivalent math placement score

★MATH 1730 PreCalculus 5 Credits

PreCalculus for students in University Parallel/College Transfer programs of science, mathematics, engineering or computer science. This course prepares students for Calculus I. Review of algebraic, trigonometric, logarithmic and exponential functions. Topics include systems of equations and inequalities, maximization, trigonometric definitions, graphs, equations and identities, exponential and logarithmic functions and complex numbers. Spring and Fall Prerequisite(s): High school algebra I and algebra II and ACT math score of at least 19; or DSPM 0850 or equivalent math placement score

★MATH 1830 Basic Calculus & Modeling 4 Credits

Topics include differentiation and integration of polynomial, rational, exponential, and logarithmic functions and methods of numerical integration. Topics from business modeling, such as economic applications and case studies, will be explored with computer simulations, computer labs, or calculators. A graphing calculator is required. Spring and Fall Prerequisite(s): High school algebra I and algebra II and precalculus and satisfactory placement scores; or MATH 1130 or 1710 or 1730

MATH 1840 Technical Calculus 3 Credits

Analytic geometry, limits, derivatives and integrals of polynomial and rational functions with technical applications. This course is for Engineering Technologies majors. Spring and Fall Prerequisite(s): MATH 1730; or MATH 1130 and 1720; or MATH 1710 and 1720

★MATH 1910 Calculus I 4 Credits

Single variable calculus for students majoring in science, mathematics, engineering and computer science. Limits and differentiation of polynomial, rational, trigonometric, exponential and logarithmic functions and applications. ACT math score of at least 26 is recommended. Spring and Fall Prerequisite(s): High school algebra I and algebra II and geometry and trigonometry and satisfactory placement test scores; or MATH 1730; or MATH 1710 and 1720

★MATH 1920 Calculus II 4 Credits

Integral calculus with applications. Topics include methods of integration, sequences, series, polar coordinates and differential equations. Applications include real-world problems in physics, engineering, economics and biology. Spring and Fall Prerequisite(s): MATH 1910

★MATH 2000 Matrix Computations 1 Credit

Introduction to matrix calculations, including determinants, eigenvalues and eigenvectors. For students in engineering transfer programs. On Demand Prerequisite(s): MATH 2110 or consent of instructor

★MATH 2010 Matrix Algebra 3 Credits

Topics include solutions of systems of linear equations and Euclidean vector operations. Concepts of linear independence, basis and dimension, rank, and nullity are defined and illustrated. Additional topics include eigensystems and general linear transformations. A computer laboratory component is required. On Demand Prerequisite(s): MATH 1920

★MATH 2050 Introduction to Statistics 3 Credits

Descriptive statistics, including bivariate trends, time series, concepts of probability and probability distributions, binomial and normal distributions, linear correlation and regression, estimation and significance tests for means, contingency tables, chi-square tests for goodness of fit and independence. A computer laboratory component is included. Spring and Fall Prerequisite(s): MATH 1830 or 1910
★MATH 2110  Calculus III 4 Credits
Calculus of functions in two or more dimensions. Topics include solid analytic geometry, partial differentiation, multiple integration and selected topics in vector calculus. Spring and Fall Prerequisite(s): MATH 1920

★MATH 2120  Differential Equations 3 Credits
A first course in differential equations emphasizing solution techniques. Includes first-order equations and applications, theory of linear equations, basic second-order equations and applications, Laplace transforms, and series solutions. On Demand Prerequisite(s): MATH 1920

MECHANICAL ENGINEERING TECHNOLOGY

MET 1012  Materials & Manufacturing Processes 4 Credits
An overview of material science and a survey of traditional and high-tech manufacturing processes with a strong emphasis on OSHA and safety. Spring and Fall Corequisite(s): ENGT 1000 for MET majors; no prerequisite for nonmajors

MET 1020  Shop Practices 4 Credits
An introductory course in the theory, setup and operation of basic machine tools and measuring equipment. Spring and Fall Corequisite(s): ENGT 1000 for MET majors; CID 1100 for nonmajors

MET 1040  Applied Statics 3 Credits
A study of the effects of forces acting on rigid bodies at rest. Topics include moments, equilibrium, simple trusses friction, centroids, center of gravity and moments of inertia. Spring and Fall Prerequisite(s): MATH 1730

MET 1051  Strength of Materials 4 Credits
A study of the internal reactions within a rigid body caused by external forces acting on the body. Topics include stress, strain, torsion, and bending and deflection of beams. Spring and Fall Prerequisite(s): MET 1040

MET 1060  Maintenance Printreading Applications W/Lab 3 Credits
Introduction to printreading and mathematical applications in the maintenance field. The purpose of the course is to introduce applied mathematics and specialized blueprint reading skills needed for maintenance workers and operations. On Demand

MET 2020  Fluid Mechanics & Power Applications 4 Credits
A study of fluid mechanics with hydraulic and pneumatic applications. Topics include pressure, fluid flow, fluid energy, system losses, pumps, control valves, system analysis and maintenance. Other topics include total quality maintenance (TQM), along with preventive and predictive maintenance methods. On Demand Prerequisite(s): MATH 1730

MET 2025  Applied Mechanics 4 Credits
A study of the forces acting on bodies in motion and the selection and application of basic elements common to most mechanical designs. Topics include linear and rotational motion, displacement, acceleration, velocity, work, energy, power, shafts, bearings, power transmission, fasteners, and lubrication. Topics are presented that will foster a commitment to quality, timeliness and continuous improvement as they apply to modern machine design practices. On Demand Prerequisite(s): MET 1020 and 1051

MET 2030  Machine Elements W/Lab 3 Credits
A study in the selection and application of basic elements common to most machine designs. Topics include shafts, bearings, power transmission and lubrication. On Demand Prerequisite(s): MET 1020

MET 2040  Thermodynamics & Heat Transfer 3 Credits
A study of the basic laws of thermodynamics and heat transfer and their application to practical problems. Topics include the first and second laws of thermodynamics, properties of steam, and power cycles. On Demand Prerequisite(s): MET 2020
MET 2310  Geometrics & Coordinate Measuring  4 Credits
A course in state-of-the-art methods of metrology with emphasis on geometric dimensioning and tolerancing (GD&T) and computer-assisted coordinate measuring (CMM). *Spring and Fall*

Prerequisite(s): CID 1100 and ENGT 1000 and MET 1020

MET 2610  Special Projects: MET  2-4 Credits
A projects-based course in which the students and the instructor identify a research design problem to be pursued by the students. This course exposes the students to “real world” situations encountered in industry and offers the students an opportunity to apply the skills, knowledge, and abilities learned in previous classes. May be repeated for credit up to 8 hours. *On Demand*

Prerequisite(s): Sophomore class standing

MET 2700  CNC Milling  4 Credits
CNC Milling is a state-of-the-art machining course in three-axis programming and applications. Both manual and computer-assisted methods of part programming will be taught, with particular emphasis placed on laboratory projects to enhance hands-on operational experience. The course will include such topics as basic codes, absolute/incremental programming, canned cycles, tool database, post processing and program transfer. *On Demand*

Prerequisite(s): MET 1020 and CID 1100

Corequisite(s): MET 2310

MET 2720  CNC Turning  4 Credits
CNC Turning is a state-of-the-art machining course in two-axis programming and applications. Both manual and computer-assisted methods of part programming will be taught, with particular emphasis placed on laboratory projects to enhance hands-on operational experience. The course will include such topics as tool offsets, facing, OD turning, thread cutting, taper turning, drilling, boring and tooling data base. *On Demand*

Prerequisite(s): MET 2700

MET 2740  Advanced CNC Machining  2 Credits
A state-of-the-art machining course that expands the computer-assisted programming skills presented in CNC Milling and CNC Turning. The course includes 3-D surface and solid modeling, 4-axis programming, bar feeder applications, and modification of post-processors. *On Demand*

Prerequisite(s): MET 2720

MET 2800  Fundamentals of Testing  3 Credits
An introductory course in the development and use of various testing procedures. Topics include measuring devices, including use, care, and calibration, measurement uncertainty and error, developing a test plan and part layout, data collection methods and analysis, and final reporting. In addition, the topics of product reliability and ISO certification are presented. *Spring*

Prerequisite(s): ENGL 1010 and MET 1012

MET 2810  Destructive & Non-Destructive Testing  3 Credits
A study in the methods, procedures, and equipment associated with physical testing, both destructive and non-destructive. The course will include such topics as gauging, hardness testing, impact testing, tensile and compression testing, magnalux testing, ultrasonic testing, and dye penetrant testing. *Fall*

Prerequisite(s): MET 2800

MET 2820  Statistical Process Control  4 Credits
A study of the fundamental concepts and methodology of statistical process control (SPC), with particular emphasis placed on laboratory projects to enhance hands-on operational experience. Topics include philosophy of SPC and other quality systems, basic statistical concepts, variable and attribute charting, and computer-assisted methods. *On Demand*

Prerequisite(s): MATH 1530 and MET 2810

MEDIA TECHNOLOGIES

MDT 1000  Introduction to Media Technologies  3 Credits
This course critically analyzes mass communication and its effect on society. It equips students with media literacy skills to deconstruct mass media’s influence. It compares media representations of societal behavior and belief systems of differing cultures. Students study film and television and how these media depict individuals, institutions, and issues. Students also study copyright and ethics in the converging media workplace and the history of mass media 1850-present. *Spring and Fall*
MDT 2100  Photoshop Essentials  3 Credits
Students are introduced to the digital darkroom using Adobe Photoshop and related software, with images from film and flatbed scanners, digital camera, and other media. Topics covered include selecting, layers, color correction, color theory, retouching, special effects, rollovers, animation, slicing, type effects and using Photoshop as a design tool. Documents created in class will be optimized for Web, print and multimedia uses. Students will complete a variety of tutorials as well as create personal projects. Spring and Fall Prerequisite(s): WEB 2200; or OST 2801 and 2802 and 2803; or CSIT 2645 or equivalent for WEB students; PHO 1000 and CGT 1030 for PHO students

MDT 2800  Professional Practices  3 Credits
An in-depth study of how media functions in the real world. Interrelation of media disciplines, professional organizations, media ethics and law, intellectual property, subject rights, client rights, and professional standards is explored. This class is geared to the aspiring media professional, with special attention paid to those who wish to be self-employed. Marketing, pricing, preparing a business plan and preparing taxes are covered. On Demand Prerequisite(s): MDT 1000

MDT 2998  Media Technologies Internship  1-3 Credits
This course is a supervised work experience requiring a minimum of 45 hours in the field of media technologies. Individual communication is arranged instead of class attendance. May be repeated for credit up to 3 hours. Spring and Fall Prerequisite(s): Consent of instructor

MILITARY SCIENCE—AIR FORCE

★MSAF 1010  The Air Force Today I  1 Credit
This is a survey course that focuses on the organizational structure and missions of the Air Force; officer and professionalism; and includes an introduction to communicative skills. A weekly leadership laboratory consisting of Air Force customs and courtesies, health and physical fitness, and drill and ceremonies is mandatory. On Demand Prerequisite(s): Permission from ROTC program at the University of Tennessee, Knoxville Corequisite(s): MSAF 1030

★MSAF 1020  The Air Force Today II  1 Credit
This course is a continuation of MSAF 1010 that focuses on the organizational structure and missions of the Air Force; officer and professionalism; and includes an introduction to communicative skills. A weekly leadership laboratory consisting of Air Force customs and courtesies, health and physical fitness, and drill and ceremonies is mandatory. On Demand Prerequisite(s): Permission from ROTC program at the University of Tennessee, Knoxville Corequisite(s): MSAF 1040

★MSAF 1030  Leadership Laboratory I  1 Credit
Leadership Laboratory includes a study of Air Force customs and courtesies, drills and ceremonies, and giving military commands; instructing, correcting, and evaluating the preceding skills; studying the environment of an Air Force officer; and learning about opportunities available to commissioned officers. On Demand Prerequisite(s): Permission from ROTC program at the University of Tennessee, Knoxville Corequisite(s): MSAF 1010

★MSAF 1040  Leadership Laboratory II  1 Credit
Leadership Laboratory includes a study of Air Force customs and courtesies, drills and ceremonies, and giving military commands; instructing, correcting, and evaluating the preceding skills; studying the environment of an Air Force officer; and learning about opportunities available to commissioned officers. Prerequisite(s): Permission from ROTC program at the University of Tennessee, Knoxville Corequisite(s): MSAF 1020
**MSAF 2010**  
The Development of Air Power I  
1 Credit  
This course focuses on factors contributing to the development of air power from its earliest beginnings through two world wars; the evolution of air power concepts and doctrine; and an assessment of communicative skills. A weekly leadership laboratory consisting of Air Force customs and courtesies, Air Force environment, drill and ceremonies, and field training orientation is mandatory. *On Demand Prerequisite(s):* Permission from ROTC program at the University of Tennessee, Knoxville  

**MSAF 2020**  
The Development of Air Power II  
1 Credit  
This course is a continuation of MSAF 2010 that focuses on factors contributing to the development of air power from its earliest beginnings through two world wars; the evolution of air power concepts and doctrine; and an assessment of communicative skills. A weekly leadership laboratory consisting of Air Force customs and courtesies, Air Force environment, drill and ceremonies, and field training orientation is mandatory. *On Demand Prerequisite(s):* Permission from ROTC program at the University of Tennessee, Knoxville  

**MSAF 2030**  
Leadership Laboratory III  
1 Credit  
Leadership Laboratory includes a study of Air Force customs and courtesies, drills and ceremonies, and giving military commands; instructing, correcting, and evaluating the preceding skills; studying the environment of an Air Force officer; and learning about opportunities available to commissioned officers. *On Demand Prerequisite(s):* Permission from ROTC program at the University of Tennessee, Knoxville  

**MSAF 2040**  
Leadership Laboratory IV  
1 Credit  
Leadership Laboratory includes a study of Air Force customs and courtesies, drills and ceremonies, and giving military commands; instructing, correcting, and evaluating the preceding skills; studying the environment of an Air Force officer; and learning about opportunities available to commissioned officers. *On Demand Prerequisite(s):* Permission from ROTC program at the University of Tennessee, Knoxville  

**MSCI 1100**  
Foundations of Officership  
2 Credits  
Formation and functioning of the American defense establishment and its relationship with American society, customs and traditions of the Army, aspects of military physical fitness training, selected topics dealing with current world affairs, challenges facing the military in the future. Introduces rifle marksmanship, mountaineering, drill and ceremony and optional field training exercises. *On Demand Prerequisite(s):* Permission from ROTC program at the University of Tennessee, Knoxville and U.S. citizenship  

**MSCI 1200**  
Basic Leadership  
2 Credits  
Introduction of basic leadership theory, principles and skills, with emphasis on effective oral communications. Students present a military skill subject briefing. Skills taught include rifle marksmanship, small unit communications and land navigation. Leadership lab focuses on rappelling, tactical formations, drill and ceremony and optional field training exercises. *On Demand Prerequisite(s):* Permission from ROTC program at the University of Tennessee, Knoxville and U.S. citizenship  

**MSCI 1300**  
Army Conditioning Program  
1 Credit  
Challenging instruction that concentrates on students’ individual weaknesses and directly applies exercises designed to increase flexibility, muscular strength, and cardiorespiratory endurance. Student also develops the ability to design and lead a fitness program. May be repeated for up to 6 hours. This course is open to University of Tennessee, Knoxville, ROTC students only. *On Demand Prerequisite(s):* Permission from ROTC program at the University of Tennessee, Knoxville
MSCI 2100  Individual Leadership Studies  2 Credits
Practical application of small unit operating techniques and training to include first aid, evacuating casualties, marksmanship and weapons familiarization, map reading and land navigation, drill and ceremony, and customs and traditions. This course is open to University of Tennessee, Knoxville, ROTC students only. **On Demand**

Prerequisite(s): Permission from ROTC program at the University of Tennessee, Knoxville and U.S. citizenship and three years remaining to complete degree

MSCI 2200  Leadership & Teamwork  2 Credits
Introduction to Army values, ethics, equal opportunity, and sexual harassment training; counseling techniques; problem solving; career decision making; motivating subordinates; developing and leading a physical fitness program; and military common task training. This course is open to University of Tennessee, Knoxville, ROTC students only. **On Demand**

Prerequisite(s): Permission from ROTC program at the University of Tennessee, Knoxville and MSCI 2100; or consent of instructor

MUSIC

MUS 1000  Fundamentals of Music  3 Credits
Study of basic elements of music. No previous training or experience required. Spring and Fall

MUS 1030  Music Appreciation  3 Credits
Developing listening skills and an understanding of Western music from the ancient world through the 20th century. Spring and Fall

MUS 1040  Music in World Cultures  3 Credits
Study of American and other world cultures, using music as the springboard. Development of listening skills and an appreciation and understanding of diverse musical traditions. On Demand

MUS 1110  Music Theory I  3 Credits
Materials of music, including basic elements through triads, seventh chords and non-chord tones. Exercise in writing and analysis of music, with emphasis on Common Practice Period music. Fall

Corequisite(s): MUS 1300

MUS 1120  Music Theory II  3 Credits
Continuation of MUS 1110. Spring

Prerequisite(s): MUS 1110 Corequisite(s): MUS 1400

MUS 1300  Ear Training I  1 Credit
Development of proficiency in identifying and notating melodic, harmonic, and rhythmic models. A computer laboratory component is included. Fall

Corequisite(s): MUS 2110

MUS 1400  Ear Training II  1 Credit
Continuation of MUS 1300. Spring

Prerequisite(s): MUS 1300 Corequisite(s): MUS 1120

MUS 2000  Introduction to Music Literature  3 Credits
Study of basic forms of music and accepted masterworks through chronological approach. Spring

Prerequisite(s): Permission of program coordinator for non-music majors; no prerequisite for music majors

MUS 2110  Music Theory III  3 Credits
Study of music theory as it evolved from the Common Practice Period into the chromaticism of the Romantic Period. Exercise in writing and analysis. Fall

Prerequisite(s): MUS 1120 Corequisite(s): MUS 2300

MUS 2120  Music Theory IV  3 Credits
Continuation of MUS 2110. Spring

Prerequisite(s): MUS 2110 Corequisite(s): MUS 2400

MUS 2300  Ear Training III  1 Credit
Development of skill in identifying and notating complex melodic, harmonic, and rhythmic models. A computer laboratory component is included. Fall

Prerequisite(s): MUS 1400 Corequisite(s): MUS 2110
MUS 2400  Ear Training IV  1 Credit
Continuation of MUS 2300. Spring Prerequisite(s): MUS 2300 Corequisite(s): MUS 2120

MUS 2500  Special Topics in Music  1-3 Credits
Study and discussion of a selected topic in music. Content will vary, as this course is a means for classes to explore certain music-related topics in depth. May be repeated for credit when a different topic is taught. On Demand Prerequisite(s): MUS 1120 and 1400 and 2000 Corequisite(s): MUS 1511

Applied Music: Ensembles
Music ensembles are available to the entire student body and may be repeated for credit. Students majoring in music must participate in at least one ensemble during each semester in which they are enrolled in 6 or more credit hours.

MUS 1511  Concert Chorale  1 Credit
A non-auditioned chorale ensemble that performs musical literature of various styles appropriate for a large mixed group. Emphasis will be on developing healthy vocal technique, ensemble skills and performance practice knowledge. Students will be required to purchase performance apparel. May be repeated for credit. Spring and Fall

MUS 1521  Variations  1 Credit
A select choral ensemble that specializes in performing literature of many different styles appropriate for a small chamber group. Emphasis will be on ensemble skills, musicality and expertise in various choral performance practices. Membership is by audition only. Students will be required to purchase performance apparel. May be repeated for credit. Spring and Fall Prerequisite(s): Consent of instructor

MUS 1540  Jazz Band  1 Credit
Ensemble experience for those students who are proficient in a brass, woodwind or keyboard instrument; guitar; or trap set. May be repeated for credit. Spring and Fall Prerequisite(s): Consent of instructor

MUS 1555  Small Ensemble—Guitar  1 Credit
This ensemble is open to guitar players but might include some doubling on secondary instruments by the ensemble members. The course may be repeated for credit. Spring and Fall

MUS 1565  Small Ensemble—Brass  1 Credit
This ensemble is open to brass players only. The course may be repeated for credit. Spring and Fall

MUS 1575  Small Ensemble—Celtic  1 Credit
This ensemble is open to players of the following instruments: flutes, guitars, whistles, violins, harps and percussion. The course may be repeated for credit. Spring and Fall

MUS 1585  Small Ensemble—Harp  1 Credit
This ensemble is open to harp players of various levels of ability. Students must provide harp of any size and must have music reading skills. The course may be repeated for credit. Spring and Fall

Applied Music: Class Instruction
Class instruction in music is available to any student.

★MUS 1610  Class Piano I  1 Credit
Class instruction in basic techniques for students with no prior training in piano. Daily practice required. Spring and Fall

★MUS 1620  Class Piano II  1 Credit
Continuation of MUS 1610. Spring and Fall Prerequisite(s): MUS 1610 or consent of instructor
Applied Music: Individual Instruction

Applied music is available to the entire student body and may be repeated for credit.

MUS 1710 Piano/Nonmajor (half-hour lesson) 1 Credit
Private instruction in piano beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1711 Piano/Nonmajor (one-hour lesson) 2 Credits
Private instruction in piano beginning at the student’s level of proficiency. May be repeated for credit. On Demand

MUS 1712 Piano/Music Major (one-hour lesson) 2 Credits
Private instruction in piano for the student majoring in music with a concentration in piano. May be repeated for credit. Solo class attendance required. On Demand Corequisite(s): participation in an appropriate Pellissippi State ensemble

MUS 1720 Voice/Nonmajor (half-hour lesson) 1 Credit
Private instruction in voice beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1721 Voice/Nonmajor (one-hour lesson) 2 Credits
Private instruction in voice beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1722 Voice/Music Major (one-hour lesson) 2 Credits
Private instruction in voice for the student majoring in music with concentration in voice. May be repeated for credit. Solo class attendance required. On Demand Corequisite(s): participation in an appropriate Pellissippi State ensemble

MUS 1730 Guitar/Nonmajor (half-hour lesson) 1 Credit
Private instruction in guitar beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1731 Guitar/Nonmajor (one-hour lesson) 2 Credits
Private instruction in guitar beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1732 Guitar/Music Major (one-hour lesson) 2 Credits
Private instruction in guitar for the student majoring in music with concentration in guitar. May be repeated for credit. Solo class attendance required. On Demand Corequisite(s): participation in an appropriate Pellissippi State ensemble

MUS 1740 Woodwind/Nonmajor (half-hour lesson) 1 Credit
Private instruction in woodwind beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1741 Woodwind/Nonmajor (one-hour lesson) 2 Credits
Private instruction in woodwind beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1742 Woodwind/Music Major (one-hour lesson) 2 Credits
Private instruction in woodwind for the student majoring in music with concentration in woodwinds. May be repeated for credit. Solo class attendance required. On Demand Corequisite(s): participation in an appropriate Pellissippi State ensemble

MUS 1750 Brass/Nonmajor (half-hour lesson) 1 Credit
Private instruction in brass beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1751 Brass/Nonmajor (one-hour lesson) 2 Credits
Private instruction in brass beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1752 Brass/Music Major (one-hour lesson) 2 Credits
Private instruction in brass for the student majoring in music with concentration in brass. May be repeated for credit. Solo class attendance required. On Demand Corequisite(s): par-
Participation in an appropriate Pellissippi State ensemble
MUS 1760  String/Nonmajor (half-hour lesson)  1 Credit  
Private instruction in string beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1761  String/Nonmajor (one-hour lesson)  2 Credits  
Private instruction in string beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1762  String/Music Major (one-hour lesson)  2 Credits  
Private instruction in string for the student majoring in music with concentration in strings. May be repeated for credit. Solo class attendance required. On Demand Corequisite(s): Participation in an appropriate Pellissippi State ensemble

MUS 1770  Percussion/Nonmajor (half-hour lesson)  1 Credit  
Private instruction in percussion beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1771  Percussion/Nonmajor (one-hour lesson)  2 Credits  
Private instruction in percussion beginning at student’s entering level of proficiency. May be repeated for credit. On Demand

MUS 1772  Percussion/Music Major (one-hour lesson)  2 Credits  
Private instruction in percussion for the student majoring in music with concentration in percussion. May be repeated for credit. Solo class attendance required. On Demand Corequisite(s): Participation in an appropriate Pellissippi State ensemble

MUS 1780  Contemporary Piano Styles/Nonmajor (half-hour lesson)  1 Credit  
Private instruction in keyboard jazz, blues, pop and rock for students with intermediate piano skills. Daily practice and workbook assignments are required. May be repeated for credit. On Demand Corequisite(s): Consent of instructor and audition may be required

MUS 1781  Contemporary Piano Styles/Nonmajor (one-hour lesson)  2 Credits  
Private instruction in keyboard jazz, blues, pop and rock for students with intermediate piano skills. Daily practice and workbook assignments are required. May be repeated for credit. On Demand Prerequisite(s): Consent of instructor and audition may be required

MUS 1782  Contemporary Piano Styles/Music Major (one-hour lesson)  2 Credits  
Private instruction in piano for the student majoring in music with concentration in keyboard jazz. May be repeated for credit. Solo class attendance required. On Demand Prerequisite(s): Consent of instructor Corequisite(s): Participation in an appropriate Pellissippi State ensemble

NETWORKING AND COMMUNICATIONS SYSTEMS TECHNOLOGY

NETW 1010  PC Hardware (A+ Certification)  4 Credits  
This course is designed for computer personnel who need advanced technical knowledge about PC hardware and PC-based local area networks. The course follows the current Computing Technology Industry Association (CompTIA) A+ (Core-Hardware Exam) Certification criteria guidelines. The course also covers basic computer-related mathematics, electricity, electronics, fiber-optics, etc., required for personal computer technologists. Spring and Fall Corequisite(s): NETW 1020 or consent of instructor

NETW 1020  PC Operating System Software (A+ Certification)  4 Credits  
This course is designed for computer personnel who need advanced technical knowledge about the PC, its operating system and key utilities, and PC-based local area networks. The course follows the current Computing Technology Industry Association (CompTIA) A+ Certification criteria guidelines for the Operating Systems examination. Spring and Fall Corequisite(s): NETW 1010 or consent of instructor

NETW 1100  Networking Fundamentals (Network+ Certification)  4 Credits  
This course is designed for information systems personnel who install, support and manage computer networks. Topics covered include network designs, architectures, standards and protocols. This course is designed for students who plan to take the CompTIA Network+ Exam and/or the Microsoft Networking Essentials Certification Exam. On Demand
NETW 1200  Windows Professional  4 Credits
This course covers installing Windows 2000, Windows XP or the most current Microsoft Windows operating system; implementing and conducting administration of resources; implementing, managing, and troubleshooting hardware devices and drivers, network protocols, and security; monitoring and optimizing performance and reliability; and configuring and troubleshooting the desktop environment. On Demand Prerequisite(s): NETW 1020

NETW 1210  Windows Server  4 Credits
Topics include the installation of Windows 2000, Windows XP or the most current Microsoft Windows operating system; installing, configuring, and troubleshooting access to resources; configuring and troubleshooting hardware devices and drivers; managing monitoring and optimizing system performance, reliability, and availability; managing, configuring, and troubleshooting storage use; configuring and troubleshooting Windows network connections; and implementing, monitoring, and troubleshooting security. On Demand Prerequisite(s): NETW 1200 or consent of instructor

NETW 1220  Administering Network Infrastructure (LAN)  4 Credits
This course is designed to provide instruction in implementing and administering a Windows 2000 network infrastructure. Topics include installing, configuring, managing, monitoring, and troubleshooting DNS, WINS, network address translation, and certificate services. Spring Prerequisite(s): NETW 1210 or consent of instructor

NETW 2020  MS Windows Security  4 Credits
This course provides instruction in the analysis of business requirements for resource security and the designing of security solutions in a Windows network operating system. Topics include analyzing business and security requirements and designing security solutions for Windows for access between networks and for communication channels. On Demand Prerequisite(s): NETW 1200 or consent of instructor

NETW 2040  Managing a Windows Network Environment  4 Credits
This course is designed for computer personnel who must install, support and manage a small Microsoft Windows network environment. The course emphasizes configuring the Microsoft Windows server operating system for a small network installation. Major topics include managing desktop environments and software with group policies; managing file resources and disks; supporting Microsoft Active Directory, TCP/IP, DHCP, DNS, and Internet Information Services; configuring remote access services (RAS); and implementing disaster protection, backup, and recovery techniques. On Demand Prerequisite(s): NETW 1210 or consent of instructor

NETW 2120  Installing/Upgrading Operating Systems  4 Credits
Topics include the procedures required to upgrade Microsoft Windows operating systems from one major release to the latest version, recreating existing Web sites and directory structures, and migrating applications to the new system. Also covered are the many different methods of installing and deploying operating systems. On Demand Prerequisite(s): NETW 1210 or consent of instructor

NETW 2800  Special Topics in Networking  1-4 Credits
This course provides an avenue to present state-of-the-art technology courses in a timely manner. Content will vary, as this course is a means for classes to explore certain topics in depth not covered in the general curriculum. May be repeated for credit up to 12 hours. On Demand Prerequisite(s): Consent of instructor

NETW 2900  Networking Internship  3 Credits
Supervised work experience. Individual conferences are arranged instead of class attendance. Spring and Fall Prerequisite(s): Completion of 24 hours of NETW courses with minimum overall GPA of 2.5 and consent of instructor
OFFICE SYSTEMS TECHNOLOGY

OST 1001 Word I CBT 1 Credit
Fundamental concepts and applications of Microsoft Word for Windows for professional and/or personal use, emphasizing commonly used commands and strategies for formatting, editing and revising text. The course is created specifically to meet the Microsoft Office Specialist program guidelines. It is delivered through Computer Based Training materials; some basic computer-use knowledge is required. *Spring and Fall Prerequisite(s): OST 1100 or equivalent*

OST 1002 Word II CBT 1 Credit
Advanced concepts and applications of Microsoft Word for Windows for professional and/or personal use, emphasizing commonly used commands and strategies for formatting, editing and revising text. The course is created specifically to meet the Microsoft Office Specialist program guidelines. It is delivered through Computer Based Training materials; some basic computer-use knowledge is required. *Spring and Fall Prerequisite(s): OST 1001 or equivalent*

OST 1003 Excel I CBT 1 Credit
Basic spreadsheet applications emphasizing formatting procedures in generating reports; fundamentals of creating, entering data into spreadsheet, storing, using formulas and printing a spreadsheet. The course is created specifically to meet the Microsoft Office Specialist program guidelines. It is delivered through Computer Based Training materials; some basic computer-use knowledge is required. *Spring and Fall Prerequisite(s): OST 1100 or equivalent*

OST 1004 Excel II CBT 1 Credit
Intermediate spreadsheet applications emphasizing financial functions and data tables; creating, sorting and filtering lists; and working with multiple worksheets and workbooks. The course is created specifically to meet the Microsoft Office Specialist program guidelines. It is delivered through computer based training materials; some basic computer-use knowledge is required. *Spring and Fall Prerequisite(s): OST 1003 or equivalent*

OST 1005 Word 3 Credits
An introduction to the popular Windows word processing program, Word. Emphasis is on efficient use of Microsoft Word features to create documents using the Microsoft Word for Windows software. Timed theory/production tests will be included. *Spring and Fall Prerequisite(s): OST 1100 or equivalent*

OST 1006 PowerPoint CBT 1 Credit
Features, commands and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows and paper-based printouts. This course is created specifically to meet the Microsoft Office Specialist program guidelines. It is delivered through Computer Based Training materials; some basic computer-use knowledge is required. *Spring and Fall Prerequisite(s): OST 1100 or equivalent*

OST 1007 Access I CBT 1 Credit
Introduction to basic database features of Microsoft Access. Skills to create databases and tables, enter and update display, print records, create forms, restructure databases, use forms and sub-forms, use charts, create reports and sub-reports are developed. The course is created specifically to meet the Microsoft Office Specialist program guidelines. It is delivered through Computer Based Training materials; some basic computer-use knowledge is required. *Spring and Fall Prerequisite(s): OST 1100 or equivalent*

OST 1008 Access II CBT 1 Credit
Advanced database features and applications used to search through databases, create reports, queries, macro and Internet features will be presented. The course is created specifically to meet the Microsoft Office Specialist program guidelines. It is delivered through Computer Based Training materials; some basic computer-use knowledge is required. *Spring and Fall Prerequisite(s): OST 1007 or equivalent*
OST 1010  Microsoft Outlook CBT  1 Credit
Fundamental concepts and applications of Microsoft Outlook delivering integrated electronic mail, information management, and collaboration among work groups. This course is created specifically to meet the Microsoft Office Specialist program guidelines. This course is delivered through computer-based training materials; some basic computer use knowledge is required. Spring and Fall Prerequisite(s): OST 1100 or equivalent

OST 1100  Keyboarding  3 Credits
A study of the alpha-numeric keyboard used on personal computers. Basic document formatting is taught. Speed and accuracy are emphasized as well as an introduction to computer and Windows. Spring and Fall

OST 1105  Speed & Skillbuilding  3 Credits
A course designed to build speed and accuracy. Individualized diagnostic and corrective practice drills will be used to help students improve speed and accuracy. Spring and Fall Prerequisite(s): OST 1100 or equivalent Corequisite(s): OST 1005

★OST 1211  Word/Excel/PowerPoint  3 Credits
A computer literacy course introducing personal computers and computer applications software used in business. Emphasis is on developing computer operation skills using basic operating systems and Word, Excel, and PowerPoint (Microsoft Office) software applications. Spring and Fall Prerequisite(s): OST 1100 or equivalent

OST 1212  Document Management in Word  1 Credit
Emphasis is on editing text and formatting a multipage research paper or business report. Headers/footers, styles, page numbering, tables, page and section breaks, and basic graphics will be included. On Demand Prerequisite(s): OST 1211 or equivalent

OST 1213  Special Effects With Excel  1 Credit
Explores spreadsheet enhancement using advanced features (drawing tools, charts, lists and PivotTables/PivotCharts). On Demand Prerequisite(s): OST 1211 or equivalent

OST 1214  Professional Presentation Enhancements  1 Credit
Enhancement of audiovisual presentations using motion paths, action buttons, hyperlinks, online clip art and custom animation, with Microsoft PowerPoint for effective presentation skills. On Demand Prerequisite(s): OST 1211 or equivalent

OST 2006  Advanced Word  3 Credits
A study of the advanced features of Microsoft Word. Topics include creating and using styles, working with electronic forms, generating diagrams and charts, and using desktop publishing concepts and features. Major emphasis is placed on working efficiently in creating and editing Word documents. Fall Prerequisite(s): OST 1005

OST 2010  Office Proficiency Assessment & Certification  1 Credit
An application-oriented assessment of entry-level skills for OST students. The course is an open-exit evaluation of students’ proficiency in keyboarding, word processing, language arts skills, records management, financial recordkeeping and spreadsheets. Finalization of portfolio and participation in a mock interview are required. Must be enrolled in final semester of OST and have filed an Intent to Graduate form. Spring and Fall Corequisite(s): OST 2302 or 2925

OST 2015  Office Integration  3 Credits
A study of the advanced features of Microsoft Office as used in business. Major emphasis will be on integration and streamlining of tasks in Microsoft Office applications. Spring Prerequisite(s): OST 1006 and 2006 and 2621 Corequisite(s): OST 2600

OST 2120  Document Design & Editing  3 Credits
An application-oriented course that includes designing and editing a variety of complex business documents, with emphasis on decision making and problem solving based on document design principles and mailability standards. Spring and Fall Prerequisite(s): OST 1005 and 1105
OST 2302  
**OST Internship**  
2 Credits

This course is a supervised work experience for OST majors to gain office support skills working with area employers. Individual conferences are arranged instead of class attendance. 

*On Demand Prerequisite(s):* Must be an OST major seeking an A.A.S. degree; completion of 15 hours of OST courses with a minimum GPA of 2.5 in OST courses; an internship application must be submitted and approved by the coordinator of Business and Computer Technology internships prior to the beginning of the enrolled term. Application is available on the Web: www.pstcc.edu/departments/bctpi.

OST 2340  
**Records Management**  
3 Credits

A study of various filing methods, including alphabetic and numeric. Topics include storage, control, retrieval, transfer, retention, and disposal of records with emphasis on electronic records management through the use of information management programs. 

*Fall Prerequisite(s):* OST 1100 and 1005

OST 2360  
**Business Communications**  
3 Credits

Language arts skills, including punctuation, spelling, editing, proofreading, and vocabulary, are reviewed and stressed. Transcription of business communications from voice dictation using computer and transcribers. Students build on skills learned in keyboarding and word-processing courses. 

*Spring Prerequisite(s):* OST 1105 and 2006 and ENGL 1010

OST 2600  
**Access**  
3 Credits

A study of database applications and maintenance including customizing forms and reports, querying and integrating with other software programs using Microsoft Access. 

*Spring Prerequisite(s):* OST 1211 or 1005 or equivalent

OST 2621  
**Excel**  
3 Credits

A study to provide fundamentals of spreadsheet applications including entering, formatting, charting, managing, and analyzing data using Excel software. 

*Spring and Fall Prerequisite(s):* OST 1211 or 1005 or equivalent

OST 2700  
**Legal Terminology & Transcription**  
3 Credits

Transcription of legal documents from voice dictation using computers and transcribers. The coordination of keyboarding, transcribing and decision-making skills in the production of legal documents will be emphasized. Students will understand the purpose and function of each legal document and use accurate legal terminology. 

*On Demand Prerequisite(s):* LAW 1000 and OST 1005

OST 2801  
**Web Design I-HTML Coding**  
1 Credit

Creation of Web pages using HTML code. Covers the basics of writing HTML code to produce Web pages and posting pages to the Web; specifically covered are text tag elements, hypertext links, color, basic images, forms and tables. 

*Spring and Fall Prerequisite(s):* OST 1005 or 1211 or equivalent

OST 2802  
**Web Design II-Graphics**  
1 Credit

Developing graphics for use in Web pages. Use of scanner, graphics program, Internet browser and related software to produce Web pages and post the pages to the Web. 

*Spring and Fall Prerequisite(s):* OST 2801

OST 2803  
**Web Design III-Site Building**  
1 Credit

Web page design and research skills are developed; building of a well-designed Web site is covered. 

*Spring and Fall Prerequisite(s):* OST 2802

★OST 2910  
**Medical Terminology I**  
4 Credits

An introduction to medical terminology through the study of anatomy and physiology and review of diseases, diagnostic procedures, and related treatments. 

*Spring and Fall Prerequisite(s):* OST 2910

OST 2920  
**Medical Terminology II**  
4 Credits

A continuation of the study of medical terminology with an emphasis on special procedures and treatments, pharmacology, and abbreviations. Medical documentation and chart formatting is an additional component. 

*Spring and Fall Prerequisite(s):* OST 2910
OST 2925  Medical Practicum  2 Credits
This course is a supervised work experience for OST majors with a concentration in Health Care Office Administration (HCOA) to work with area employers in the medical office field. Individual conferences are arranged instead of class attendance. On Demand Prerequisite(s): Completion of 15 hours of OST courses with a minimum GPA of 2.5 in the HCOA curriculum; pursuit of an A.A.S. degree as an OST major; and prior to the beginning of the enrolled term, an application must be submitted and approved by the coordinator of Business and Computer Technology internships. Application is available on the Web: www.pstcc.edu/departments/bctpi.

OST 2932  Medical Transcription Issues  3 Credits
This course is an introduction to the profession of medical transcriptionist and will explore current issues and trends in the medical transcription field. In addition, an introduction to medical transcribing with an emphasis on report formatting, grammar and editing is included. On Demand Prerequisite(s): OST 1005 and 2910 Co-requisite(s): OST 1105 and 2920

OST 2935  Medical Transcription  3 Credits
Transcription of medical communications from voice dictation using digital transcription software. Terminology and document formats are emphasized. Spring and Fall Prerequisite(s): OST 1005 and 1105 and 2920

OST 2940  Medical Insurance Coding  3 Credits
Introduction to insurance coding guidelines developed for use with the International Classification of Disease (ICD-9-CM), Current Procedural Terminology (CPT-4) and Health Care Financing Common Procedure Coding System (HCPCS). Fall Prerequisite(s): OST 2920 or department approval

OST 2945  Insurance Billing & Coding  3 Credits
A continuation of insurance coding with an emphasis on evaluation and management coding, use of modifiers, linkage of service codes to diagnoses codes, and hospital billing. Also covered is the use of billing software to enter patient information, process transactions and produce patient statements. Spring Prerequisite(s): OST 2940

OST 2950  Health Care Insurance Survey  3 Credits
A study of insurance plans and payers, claim form completion specific to the insurance carrier, and reimbursement issues. Spring Prerequisite(s): OST 2940

PARALEGAL STUDIES

LAW 1000  Introduction to Law & Ethics  3 Credits
Introduction to the work performed by legal assistants, regulation of the profession, legal and paralegal ethics and professional responsibility. Organization of legal institutions, introduction to legal procedure, survey of substantive law areas of practice. Spring and Fall Corequisite(s): ENGL 1010

LAW 1020  Law in Society  3 Credits
Law as a process through which social problems are addressed in the United States. Introduction to the Constitution, and to its interpretation by the Supreme Court in case law. Exploration of factors affecting decisions of lawmakers, both legislative and administrative, and of law enforcement agencies. Introduction to the adversarial system. On Demand

+LAW 1050  Legal Writing & Analysis  3 Credits
An exploration of the details of objective legal writing designed to prepare students to articulate legal concepts and to draft documents in a manner reflecting legal analysis; overview of the elements of legal memoranda; introduction to reading and briefing legal opinion and persuasive writing. Spring Prerequisite(s): LAW 1000 and ENGL 1010

+LAW 1060  Legal Research  3 Credits
A study of necessary materials for legal research, codes, reporter systems, digests, practice manuals and Westlaw. Methods of legal citation are studied. Spring Prerequisite(s): LAW 1000 and ENGL 1010
LAW 2020  Advanced Legal Research & Writing  3 Credits
A study of the format and organization of legal memoranda and briefs, common writing
problems, citation and computerized legal research. On Demand Prerequisite(s): LAW 1050
and 1060

+LAW 2030  Property Law  3 Credits
A study of real estate transactions and conveyances, including deeds, contracts, leases,
deeds of trust and zoning. Drafting and recording of real estate documents and search of pub-
lic documents. An introduction to property law, personal property issues and bailment. Fall
Prerequisite(s): LAW 1050 and 1060

+LAW 2040  Estates & Trusts  3 Credits
A study of common forms of wills and trusts, analysis of administration of estates by probate
courts and the assistant’s role in preparation of legal documents for planning and distribution of
estates. On Demand Prerequisite(s): LAW 1000 Corequisite(s): LAW 1060

+LAW 2100  Torts  3 Credits
Survey of state and federal law treating civil injury or damage to persons or property; worker’s
compensation; intentional torts; negligence; product liability; malpractice; and wrongful
death. Emphasis on the legal assistant’s role in personal injury and worker’s compensation
cases. Spring Prerequisite(s): LAW 1000 Corequisite(s): LAW 1060

+LAW 2110  Family Law  3 Credits
A study of substantive and procedural law relating to divorce, custody, support and adoption
and the assistant’s role in domestic cases. On Demand Prerequisite(s): LAW 1000
Corequisite(s): LAW 1060

LAW 2120  Criminal Law & Procedure  3 Credits
Survey of state and federal law of crimes and criminal procedure; the assistant’s role in
criminal cases. On Demand Prerequisite(s): LAW 1000 Corequisite(s): LAW 1060

+LAW 2210  Litigation Skills I  3 Credits
Introduction to civil litigation procedures and practices in federal and state courts; focus
on practical law office skills, interviewing techniques and investigation strategies; evidence;
emphasis on the paralegal’s role in civil litigation. On Demand Prerequisite(s): LAW 1050
and 1060

+LAW 2220  Litigation Skills II  3 Credits
A project-oriented course designed to require students to draft pleadings and legal docu-
ments, including discovery devices, in conformity with state and federal rules of procedure as
well as local state and federal court rules. On Demand Prerequisite(s): LAW 2210

+LAW 2300  Contracts & UCC  3 Credits
Fundamental principles concerning the formation, performance, and enforcement of
personal and commercial contracts; sales and secured transactions under the Uniform
Commercial Code; and overview of federal and state law regulating consumer credit and
collection procedures. Fall Prerequisite(s): LAW 1050 and 1060 for PARS majors; no pre-
requisite for MGT majors

+LAW 2500  Business Organizations  3 Credits
Survey of state and federal law affecting the organization and operation of business associ-
ations (proprietorships, agencies, partnerships and corporations); duties and liabilities of
partners, agents, directors and shareholders. Introduction to federal and state employment
law. Emphasis on the legal assistant’s role in collecting data and drafting documents to form
a Tennessee corporation and maintaining minutes and records. On Demand Prerequisite(s):
LAW 1000 Corequisite(s): LAW 1060

+LAW 2600  Special Topics  3 Credits
Study and discussion of a selected topic in law. Content will vary. May be repeated with
program advisor’s consent. Spring and Fall Prerequisite(s): LAW 1000 Corequisite(s): LAW
1060
LAW 2620 Legal Clinic 3 Credits
Supervised practical experience in a legal clinic environment with classroom instruction to support the clinical experience. On Demand Prerequisite(s): LAW 1000 and minimum 3.0 GPA in LAW courses and department approval Corequisite(s): LAW 1060

+LAW 2800 Legal Internship 3 Credits
Part-time supervised work experience in a law-related environment in which the student is assigned definite tasks and responsibilities. Individual conferences and seminars are arranged instead of class attendance. On Demand Prerequisite(s): Completion of 15 hours of LAW courses with a minimum 2.5 GPA in LAW courses and second-year status and department approval

LAW 2900 CLA Review 3 Credits
Comprehensive review of legal ethics, interviewing, legal analysis, terminology, legal research, and substantive areas of law, including litigation, contracts, corporations, bankruptcy, administrative law, criminal law, real estate and probate. Recommended for students taking national CLA exam. On Demand Prerequisite(s): Department approval +Law specialty course

PHILOSOPHY

◆ ★ PHIL 1030 Introduction to Philosophy 3 Credits
An investigation of the fundamental questions pertaining to reality, truth, freedom, the nature of humankind, the existence of God and social/political theory. Spring and Fall

★ PHIL 1300 Critical Thinking 3 Credits
An introduction to practical reasoning. This course covers the nature of deductive and inductive arguments, diagramming arguments, the search for implicit premises and conclusions and the role of falsehood, deception and emotion in reasoning. More important, PHIL 1300 is a careful study of argument construction and evaluation. Spring and Fall

◆ ★ PHIL 2010 Survey of World Religions 3 Credits
A comparative introduction to the origins, developments, teachings and practices of the major world religions, such as Taoism, Confucianism, Hinduism, Buddhism, Judaism, Christianity and Islam. Spring and Fall

◆ PHIL 2400 Introduction to Ethics 3 Credits
An introduction to moral theory and/or a consideration of a variety of moral problems, including abortion, suicide and euthanasia, capital punishment, women’s issues, sex and AIDS, animals and the environment and war. Spring and Fall

Ethical Theory &

★ PHIL 2420 Its Business Applications 3 Credits
An introduction to moral philosophy and a consideration of moral issues related to business, including corporate responsibility, employee rights, discrimination, investment, and advertising. On Demand

★ PHIL 2450 Medical Ethics 3 Credits
This is a study of ethical issues in medicine. Topics include abortion, euthanasia, humane experimentation, and fairness in health care delivery and in the doctor-patient relationship. Spring and Fall
PHOTOGRAPHY

PHO 1000  Introduction to Photography  3 Credits
A beginning course in the study of photography as visual communication with emphasis on the 35mm single lens reflex camera. Exposure, metering, focus, depth of field, films, lenses, electronic flash, basic lighting, and composition are explored. Students are responsible for providing camera and film. Spring and Fall

PHO 1100  Advanced Photographic Techniques  3 Credits
Advanced exploration of camera controls, photographic systems, lenses, and lighting techniques. This is a basic hands-on study of advanced photographic theory and how it relates to portrait, industrial, commercial photography, and other photographic genre. Particular attention is paid to developing professional skills and attitudes. Students are responsible for providing camera and film. Spring and Fall. Prerequisite(s): PHO 1000 or consent of instructor

PHO 2060  Advanced Digital Imaging Techniques  3 Credits
Students explore the differences in traditional silver based film and digital photography including studio and location digital images as well as IPIX and Apple Quicktime VR. Special attention is paid to technical differences including exposure, lighting, focal length changes and resolution. Other topics covered are scanning methods and preparing a digital image for different types of reproduction including print, video and Web publishing. Spring and Fall Corequisite(s): MDT 2100

PHO 2100  Nature & Travel Photography  3 Credits
A study of basic location photography: nature, urban and rural. The emphasis is on on-site photography, coping with changing lighting and weather conditions, equipment and material selection, and documentation. Students are responsible for arranging transportation to and from shooting locations. On Demand Prerequisite(s): PHO 1000 and 1100 Corequisite(s): PHO 2060 and MDT 2100

PHO 2200  Commercial Photography  3 Credits
An advanced study in solving studio and location problems faced by the commercial photographer in shooting products and models. Emphasis is on the use of medium and large format cameras, professional lighting equipment, props, and setting to fulfill practical assignments. Spring Prerequisite(s): PHO 1000 and 1100 Corequisite(s): PHO 2060 and MDT 2100

PHO 2300  Portrait Photography  3 Credits
Studio lighting and camera techniques are explored emphasizing the portraiture. Students will use medium format and 35mm cameras as well as a variety of lighting equipment. Topics explored include posing, makeup, wardrobe, setting, and business practices. Fall Prerequisite(s): PHO 1000 and 1100 Corequisite(s): PHO 2060 and MDT 2100

PHO 2400  Photojournalism  3 Credits
A study of the methods and techniques of photojournalism as found in contemporary publications such as newspapers, magazines, and corporate publications. Topics include spot news, events, sports, features, environmental portraiture, photo essays, and professional practices. On Demand Prerequisite(s): PHO 1000 and 1100 Corequisite(s): PHO 2060 and MDT 2100

PHO 2500  Wedding & Retail Photography  3 Credits
A study of the methods, techniques, and business practices of contemporary wedding and retail photography. Topics include the bridal portrait, location lighting, candid photography, location portraits, special event photography, marketing, salesmanship, and working with vendors and clientele. On Demand Prerequisite(s): PHO 1000 and 1100 Corequisite(s): PHO 2060 and MDT 2100
PHO 2700  Special Topics in Photography  1-3 Credits
Advanced photographic projects, emphasizing shooting techniques, darkroom techniques, aesthetic exploration, or academic research. May be repeated for credit up to nine hours. Spring and Fall Prerequisite(s): PHO 1000 and 1100 Corequisite(s): PHO 2060 and MDT 2100

PHO 2850  Photography Portfolio  1 Credit
Students will produce a working portfolio of their own photography to be used to represent their work in the marketplace. Emphasis will be on selection of contents, materials, and professional presentation. Students are responsible for providing camera, film, and other materials. Spring Prerequisite(s): PHO 1000 and 1100 Corequisite(s): PHO 2060 and MDT 2100

PHO 2950  Independent Photographic Projects  3 Credits
This course is carried out independently by the student after consultation with a photography advisor to specify the project. On Demand Prerequisite(s): PHO 1000 and 1100 Corequisite(s): PHO 2060 and MDT 2100

PHYSICAL EDUCATION

★PHED 1000  Orientation to Exercise Science  1 Credit
Overview of the professional and disciplinary area of exercise science, with emphasis on introductory field experience. For exercise science majors only. On Demand

★PHED 1001  Orientation to Sport Management  1 Credit
Overview of the professional and disciplinary area of sport management, with emphasis on introductory field experience. For sport management majors only. On Demand

NOTE: PHED 1010 through 2660 are physical education activity courses. Two different activities, each 1 to 2 credit hours, are required for University Parallel majors.

★PHED 1010  Lifetime Fitness  1 Credit
Theory, knowledge and practical experience in principles of wellness relating to the healthful aspects of lifetime fitness. Spring and Fall

★PHED 1020  Beginning Bowling  1 Credit
Selection of equipment, correct approach and release and scoring. Fee for facility and equipment rental. Spring and Fall

★PHED 1030  Beginning Softball  1 Credit
Instruction in fundamentals, rules and strategies. Spring and Fall

PHED 1060  Wilderness Camping  3 Credits
The introduction of equipment, skills and practices associated with hiking and camping. Laboratory experience will consist of announced field trips. Spring and Fall

★PHED 1070  Introduction to Skiing  1 Credit
The fundamentals of skiing and skiing safety. Spring

★PHED 1110  Elementary Ballet  2 Credits
Instruction and practice in elementary classical ballet techniques. Spring and Fall

★PHED 1120  Elementary Modern Dance  2 Credits
Instruction and practice in elementary modern dance techniques. Fall

★PHED 1130  Elementary Jazz Dance  2 Credits
Instruction and practice in elementary jazz dance styles and techniques. Spring
PHED 2000 Special Topics 1-3 Credits
Opportunity to learn and participate in various sport, fitness and recreational activities. Content of the course will vary. The course might involve international travel and/or contain activities that require additional fees. The student will be responsible for paying all travel-related and/or activity-related expenses. The class content and travel itinerary, if any travel is involved, are determined by the instructor of the course. On Demand Prerequisite(s): Consent of instructor

PHED 2010 Archery 1 Credit
The introduction of skills, general rules, safety and techniques related to the sport of archery, with particular emphasis on acquisition of skills. Spring and Fall

PHED 2020 Badminton 1 Credit
The introduction of skills, general rules and strategy related to the game of badminton with particular emphasis on acquisition of skills. On Demand

PHED 2050 Basketball 1 Credit
The introduction and development of basic skills, general rules and strategy, related to the game of basketball with particular emphasis on acquisition of skills. Fall

PHED 2110 Beginning Golf 1 Credit
The introduction and development of basic skills and general rules related to the game of golf, with particular emphasis on acquisition of skills. Spring and Fall

PHED 2130 Ice Skating 1 Credit
The introduction of skills, safety and techniques related to ice skating, with emphasis on acquisition of skills. On Demand

PHED 2140 Hockey 1 Credit
The introduction of basic skills needed to learn how to skate and play hockey. On Demand

PHED 2160 Beginning Karate 1 Credit
The introduction and development of fundamental skills and general knowledge related to karate for fitness, self defense and sport. Particular emphasis will be placed on skill acquisition and physical conditioning. Spring and Fall

PHED 2250 Exercise to Music 1 Credit
An exercise to music program designed to improve flexibility, muscular strength and cardiovascular endurance. Spring and Fall

PHED 2310 Fitness Walking 1 Credit
Theory, knowledge and practical experience in the principles of walking as it relates to fitness. Spring and Fall

PHED 2330 Beginning Racquetball 1 Credit
The introduction and development of basic skills and general rules related to the game of racquetball with particular emphasis on acquisition of skills. On Demand

PHED 2340 Soccer 1 Credit
The introduction and development of basic skills, general rules and strategy related to the game of soccer, with particular emphasis on acquisition of skills. Spring and Fall

PHED 2390 Beginning Swimming 1 Credit
Instruction and practice in water survival skills and basic swimming strokes. On Demand

PHED 2430 First Aid, Safety & CPR 2 Credits
Practice and application of the standards and accepted principles of safety and first aid. Students are also trained in infant, child and adult cardiopulmonary resuscitation (CPR), as well as in the use of an automated electronic defibrillation device (AED). Spring and Fall

PHED 2440 Beginning Tennis 1 Credit
The introduction of skills, general rules and strategy related to the game of tennis, with particular emphasis on acquisition of skills. Spring and Fall
PHED 2450 Intermediate Tennis 1 Credit
Development of intermediate skills and strategy related to the game of tennis with, particular emphasis on control and auxiliary strokes. May not be taken with PHED 2440 to satisfy PE activity requirements. Spring and Fall

PHED 2510 Volleyball 1 Credit
The introduction of skills, general rules and strategy related to the game of volleyball, with particular emphasis on acquisition of skills. Spring and Fall

PHED 2520 Weight Training 1 Credit
The introduction of flexibility, cardiovascular and strength conditioning related to the sport of weight training. Safety and proper use of equipment are emphasized. Spring and Fall

PHED 2660 Wilderness Orienteering 1 Credit
The introduction of skills, strategy and instruction on using a topographical map and compass to navigate in wilderness terrain. Spring and Fall

PHED 2900 Human Motor Behavior 3 Credits
Theories and principles explaining motor behavior; psychological factors related to and/or affecting motor skill acquisition and performance. On Demand

PHYSICS

PHYS 1300 Concepts of Physics 3 Credits
A survey of physics concepts and content as applicable to the Tennessee K-8 curriculum standards and the National Science Education Standards. Instructional topics include mechanics, heat, electricity, magnetism, sound and light. This course will only count toward the education program at Tennessee Technological University and Lincoln Memorial University. Spring and Fall

PHYS 1310 Mechanics & Heat I W/Lab 4 Credits
A calculus-based introduction to mechanics and heat. This course covers vectors, Newton’s laws of motion, static and dynamic equilibrium of particles, work and energy, impulse and momentum, torque and rotational equilibrium, and elasticity. Course includes three hours of lecture and three hours of laboratory applications. On Demand Prerequisite(s): MATH 1910

PHYS 1320 Mechanics & Heat II W/Lab 4 Credits
A calculus-based introduction to mechanics and heat. This course is a continuation of Mechanics & Heat I. It covers rigid body equilibrium, periodic motion, fluid mechanics, heat and thermodynamics, ideal gas behavior, oscillatory motion, and acoustics. Course includes three hours of lecture and three hours of laboratory applications. On Demand Prerequisite(s): PHYS 1310 Corequisite(s): MATH 1920

PHYS 2010 Noncalculus Based Physics I 4 Credits
This course includes the basic principles of physics with their applications in pre-medical, -dental, -pharmacy, and -veterinary programs and covers mechanics, heat, and wave motion including sound. Course includes three hours of lecture and three hours of laboratory applications. Spring and Fall Prerequisite(s): MATH 1730, or MATH 1130 and 1720

PHYS 2020 Noncalculus Based Physics II 4 Credits
This course is a continuation of Elements of Physics I. It covers electricity and magnetism, optics, and modern physics. Course includes three hours of lecture and three hours of laboratory applications. Spring Prerequisite(s): PHYS 2010

PHYS 2110 Calculus Based Physics I 4 Credits
For students majoring in engineering, mathematics and physics. This is a calculus-based approach to topics in electricity and magnetism. Course includes three hours of lecture and three hours of laboratory applications. Spring and Fall Prerequisite(s): MATH 1920 Corequisite(s): ENS 1510
PHYS 2120  Calculus Based Physics II  4 Credits

For students majoring in engineering, mathematics and physics. This is a calculus-based approach to topics in wave motion, optics and modern physics. Course includes three hours of lecture and three hours of laboratory applications. *Spring Prerequisite(s): PHYS 2110*

**POLITICAL SCIENCE**

POL 1010  United States Government & Politics  3 Credits

This course provides an introduction to U.S. government and politics focusing on citizen participation and governmental institutions. Topics include the Constitution, federalism, civil liberties and civil rights, voting, the media, parties and groups, public opinion, Congress, the presidency, the federal bureaucracy, and the courts. *Spring and Fall*

POL 1020  Introduction to Political Science  3 Credits

Analysis of politics and political systems in various countries. Topics include model states; democratic, authoritarian, and totalitarian states; political socialization and participation; political leadership; public policy; international relations; and revolution, terrorism, and war. *Spring and Fall*

**PSYCHOLOGY**

PSY 1010  General Psychology  3 Credits

An introduction to theoretical perspectives, psychological terminology, and major theories and theorists. *Spring and Fall*

PSY 2100  Psychology of Human Development  3 Credits

Understanding and applications of psychology of human development to teaching/learning process in educational settings. *Spring and Fall*

PSY 2200  Behavior & Experience  3 Credits

Behavioral and phenomenological analysis of individuals and their development in natural environments. *Spring and Fall Prerequisite(s): PSY 1010 or equivalent; or consent of instructor*

PSY 2400  Human Development Through the Lifespan  3 Credits

This course explores the interaction of physical, cognitive, emotional and social aspects of development through the lifespan. The course is designed with a chronological approach emphasizing psychoanalytic and humanistic perspectives. *Spring and Fall*

**READING**

DSPR 0700  Basic Reading W/Lab  3 Credits

This is the first reading course for native speakers of the English language. The course promotes effective literal comprehension at the paragraph level through prereading and note taking, vocabulary development, increasing reading speed and efficiency, and strategies to aid concentration and memory. *Spring and Fall*

DSPR 0800  Developmental Reading  3 Credits

The Developmental Reading course is the second of two reading courses offered in the English Department for under-prepared students. It presents effective comprehension techniques for college-level selections. The course emphasizes (a) organizational strategies for retention and recall, (b) typographical devices and cues to the organization of ideas, (c) reasoning and analysis for critical comprehension, (d) flexible reading rate, and (e) vocabulary development activities. *Spring and Fall*
### REAL ESTATE

**REA 1200 Real Estate Law**  
2 Credits  
The basic legal ramifications and standing of real property contract instruments in view of common law precedents, federal and state statutes and miscellaneous agency interpretations. Ethical conduct and standard behavior in the brokerage of real property. *On Demand*

**REA 1850 Real Estate Appraising**  
3 Credits  
This course introduces the student to basic real estate appraisal theory and technique for residential properties. The fundamental concepts that form the basis for the appraisal process are examined, followed by in-depth explanation of the three primary approaches to valuation as applied to one-to-four-family properties and vacant land. The course concludes with a study of the Uniform Standards of Professional Appraisal Practice (USPAP). Following successful completion of the course, the student will be afforded an opportunity to take the National USPAP Course exam. *On Demand*

**REA 1950 Income Property Valuation**  
3 Credits  
This course introduces the student to the concepts and techniques used in the appraisal of income-producing real estate. It begins with basic definitions and an examination of the nature of money. The course then examines the various techniques and methodologies associated with income analysis, including both theory and illustrative examples. Students will complete an appraisal of an income-producing property and report the results using form, narrative, and oral formats as part of the course. *On Demand*  
**Corequisite(s):** REA 1850 or equivalent

### RETAIL AND CONSUMER SCIENCES

**RCS 1200 Textiles for Interiors**  
3 Credits  
Textiles used in interior design will be emphasized, including consumer-oriented textiles, fibers, fabric construction and finishes in relation to use, serviceability and care. *Spring and Fall*

### SECURITY ENGINEERING AND ADMINISTRATION TECHNOLOGY

**SEAT 1000 Introduction to Security Engineering & Administration Technology**  
3 Credits  
An overview of the scope of the security industry providing an historical perspective on the development of the security field with an emphasis on current role and function. Aspects of protecting people, information and physical assets are examined. Principles and frameworks for recognizing security issues and solutions are introduced within the contexts of contemporary business, government, and public settings. *On Demand*

**SEAT 1100 Investigation Techniques**  
3 Credits  
This course introduces students to the different types of security investigations applicable in a variety of public and private settings. Interviewing techniques, development of investigative documentation, and observation skills and use of technical resources for investigative purposes are covered. *On Demand*

**SEAT 1300 Emergency Planning**  
3 Credits  
This course introduces the student to emergency planning and management relative to a variety of human and natural disasters. Tools such as security surveys and audits are introduced and practiced in application activities. Students learn to identify and analyze potential disasters, provide corrective action, and plan, organize, and implement contingency and recovery programs. *On Demand*
SEAT 1400  Security Systems I  4 Credits
This course analyzes various alarm sensors and other devices used in security alarm systems. Students are introduced to a variety of alarm systems and applications. A critical review of alarm devices takes place, focusing on purpose and use, limitations, benefits, environmental restrictions, response system installation, and maintenance requirements. On Demand Prerequisite(s): EET 1012

SEAT 1500  Security Management I  3 Credits
This course is an overview of principles and issues in security management. Topics include personnel management, security planning and evaluation, organizational leadership, and communication. On Demand Prerequisite(s): SEAT 1000

SEAT 1600  Installation Practices  4 Credits
An introductory course in installation practices. The student will be introduced to the national electrical code (NEC) and other national codes and standards, with particular emphasis on the NEC. The student will be introduced to conductor properties and applications for power, instrumentation, security, network, and communication cabling. This course emphasizes low-voltage wiring in residential and commercial buildings and the ULC requirements of protective wiring, access control systems and video surveillance systems. Functionality, installation practices and wiring methods of alarm systems are emphasized. On Demand

SEAT 1700  Physical & Personnel Security  3 Credits
This course examines principles of both physical and personnel security. Risk management and vulnerability assessment are included, along with aspects of facility and environmental architecture, physical security methods, loss prevention strategies, guard forces, and government public safety infrastructure. Students demonstrate integration of security components for specific threats. On Demand Prerequisite(s): SEAT 1000

SEAT 1900  Legal Aspects of Security Administration  3 Credits
This course is an overview of important legal and ethical issues regarding security administration. Students examine such issues as personnel law and obligations, contracts, constitutional rights of individuals, legal liability of security professionals and organizations, legal compliance, and ethical standards. On Demand Prerequisite(s): SEAT 1000

SEAT 2400  Security Systems II  4 Credits
This course emphasizes specialized security system applications such as closed circuit television (CCTV), sound-triggered movement detection technology and related sensing systems, and card access systems. Students gain a sound knowledge of system components related to the security alarm industry. On Demand Prerequisite(s): SEAT 1400

SEAT 2500  Security Management II  3 Credits
This course is a continuation of Security Management I, with the student applying principles of management to security administration. Topics include personnel management, security planning, regulatory compliance, organizational leadership and communication. On Demand Prerequisite(s): SEAT 1500

SEAT 2600  Special Topics in Security Engineering & Administration Technology  1-4 Credits
This course provides the opportunity for the student to explore contemporary issues, problems, trends and controversies in the security field. The course supplements the core and elective courses in the Security Engineering & Administration Technology curriculum by focusing on issues of current and special interest. Course may be repeated for credit up to 4 hours. On Demand Prerequisite(s): Consent of instructor

SEAT 2800  Professional Practice  3 Credits
This course includes technical writing and documentation, human relations, professionalism, ethics and standards of conduct, responsibilities and liabilities, and communications skills necessary in the professional security field. Students research, develop, and present oral and written reports on contemporary issues in managerial or technical practices in the security industry. On Demand Prerequisite(s): Second-year status
SEAT 2900  SEAT Internship  3 Credits
This course is designed to give students practical work experience in the public/private/government security field. Individual conferences are arranged instead of class attendance. On Demand Prerequisite(s): Second-year status; and minimum of 2.5 GPA in SEAT courses; and consent of instructor

SOCIAL WORK
★SWK 2000  Introduction to Social Work  3 Credits
Emergence of the social work profession; professional mission, skills and values, practice settings, client groups, helping services, career patterns, practice methods. Designed to assist students in selecting a career in social work. On Demand
★SWK 2050  Social Welfare  3 Credits
An investigation of the social welfare institution and its development, structure, and function. Course focuses on social services delivery modes and the impact of political, economic, and social policies. On Demand

SOCIOLOGY
◆★SOC 1010  General Sociology  3 Credits
Concepts and theoretical approaches of sociology with emphasis on culture, socialization and social organization. Spring and Fall
◆★SOC 1020  Social Problems & Social Change  3 Credits
Increasingly acute and intense problems such as alcoholism, violence, drugs, crime, inequality, lifestyle preferences and environmental abuse within the context of social change. Assessment of control strategies. Spring and Fall

SPANISH
SPAN 1000  Technical Spanish  3 Credits
Beginning-level Spanish with focus on functional use of the language in specific contexts: for medical personnel, police, day-care personnel, other businesses, etc. On Demand
★SPAN 1010  Beginning Spanish I  3 Credits
Introduction to Spanish. Conversation, grammar, composition, vocabulary building, reading. Listening and practice materials on tapes. Language laboratory required. Spring and Fall
★SPAN 1020  Beginning Spanish II  3 Credits
Continuation of SPAN 1010. Spring and Fall Prerequisite(s): SPAN 1010 or one year of high school Spanish
◆★SPAN 2010  Intermediate Spanish I  3 Credits
Conversation, writing, listening and reading. Emphasis on communicative proficiency. Listening and practice materials on tapes. Language laboratory required. Spring and Fall Prerequisite(s): SPAN 1020 or equivalent
◆★SPAN 2020  Intermediate Spanish II  3 Credits
Continuation of SPAN 2010. Spring and Fall Prerequisite(s): SPAN 2010 or equivalent
SPAN 2510  Spanish Conversation  3 Credits
Spanish conversation and composition: Focus is on functional aspects of speaking and writing to increase proficiency through sustained, topic-related conversations and written compositions, with grammar review. On Demand Prerequisite(s): SPAN 2020 or four years of high school Spanish or equivalent life experience.
**SPEECH**

★SPH 1000  **Introduction to Speech Communication**  3 Credits  
Fundamental theories and practices with particular reference to intrapersonal, interpersonal, group, organizational, and public communication. *On Demand*

SPH 2000  **Developing Speech Confidence**  1 Credit  
Techniques and practices for coping with apprehension about oral communications or stage fright. Recommended for those who are currently enrolled in SPH 2100 or 2400 and desire further work in dealing with readiness. *Spring and Fall*

◆★SPH 2100  **Public Speaking**  3 Credits  
Principles and practices of the oral communication process, with a primary emphasis on extemporaneous public speaking. Course will incorporate research and planning, audience demographics, topic selection, small and large group communication, listening, reasoning, and evaluation skills. *Spring and Fall*  
Corequisite(s): ENGL 1010

★SPH 2800  **Oral Interpretation**  3 Credits  
Art of reading aloud; development of interpretative techniques—both individual and group—and their application to selected passages of prose, poetry and drama. *On Demand*

**THEATRE**

◆★THEA 1030  **Introduction to Theatre**  3 Credits  
Understanding theatre thought, philosophy, aesthetics, historical perspective and production practices. *Spring and Fall*

THEA 1311  **Play Production**  3 Credits  
Practical experience in a laboratory setting in the different phases of putting on a play, including staging, lighting, publicity, makeup and directing. The course will culminate in a fully staged production. *Spring and Fall*

★THEA 2200  **Acting I**  3 Credits  
The mechanics of acting in terms of physical movement, body control and character-building techniques. Students will select and interpret various roles in class. *Spring and Fall*

★THEA 2210  **Acting II**  3 Credits  
The further exploration of acting techniques through exercises, scene work and period/style study. *Spring*  
Prerequisite(s): THEA 2200

THEA 2250  **Creative Drama**  3 Credits  
Innovative methods of improvisational drama to develop creative thinking, improve oral and written communication and learn dramatic structure. An emphasis is on problem solving through playwriting. The techniques can be used in theatre, education, therapy, childcare and recreation. *On Demand*  
Prerequisite(s): ENGL 1010

★THEA 2260  **Voice & Diction**  3 Credits  
The study and application of voice production, attention to individual speech problems and needs, beginning usage of the international phonetic alphabet. *Fall*

THEA 2280  **Movement for the Stage**  3 Credits  
Basic skills, concepts, and techniques of movement and self-use for the stage. Basic exercises from varied movement disciplines are taught. *Spring*  
Prerequisite(s): THEA 2200 or consent of instructor

THEA 2311  **Advanced Play Production**  3 Credits  
Advanced practical experience in a laboratory setting in the different phases of putting on a play, including staging, lighting, publicity, makeup and directing. The course will culminate in a fully staged production. May be repeated once for credit (maximum of 6 hours). *On Demand*  
Prerequisite(s): THEA 1311 or permission of instructor
THEA 2998  Theatre Production Internship  3 Credits
Course designed to afford students practical experience in conjunction with the Smoky Mountain Shakespeare Festival or other in-house productions. Opportunities in acting, technical theatre, design, marketing/publicity and tourism/hospitality will be available. On Demand  Prerequisite(s):  Permission of instructor and approval of department head or program coordinator

VIDEO PRODUCTION TECHNOLOGY

VPT 1015  Sound Production  3 Credits
An introduction to basic audio production equipment, processes and analog and digital systems, including introduction to ProTools. Analog and digital systems will be used to record, mix and produce a variety of aural media. Emphasis will be placed on recording on location and in the studio, mixing and effects, and processing of multiple sound tracks for use in film, television/video, and the multimedia environment.  Spring and Fall  Prerequisite(s):  Consent of instructor

VPT 1020  Special Topics in Video  3 Credits
Selected basic and advanced topics in video, including specialized software and other additional topics. Current topics include Final Cut HD Studio, After Effects, Pro Tools and more. May be repeated for credit up to 6 hours.  Spring and Fall  Prerequisite(s):  Consent of instructor

VPT 1030  Introduction to Desktop Video/Audio  3 Credits
The course is the first in a three-course sequence and is designed primarily to familiarize students with Avid as a central resource to assemble a wide variety of media formats and convert them into a video presentation. The course includes related operation of both Windows and Apple operating systems and the technologies used to bring photographic (film, video, still) images and audio into the digital domain and produce completed video projects. Students will learn to import audio and video media into video editing applications like Avid Express HD from applications such as Pro Tools, Acid Pro, Photoshop, and others.  Spring and Fall

VPT 1045  Technical Video Production  3 Credits
Introduction to the basic technologies and processes used in video: the system and the equipment, the basic procedures, techniques and the process of design and production. Students shoot, edit in camera; analyze short projects; learn the basic principles of audio and visual communication; and employ the concepts and vocabulary of motion picture aesthetics. The production process and the job roles are examined throughout, from idea through shooting, through postproduction.  Spring and Fall

VPT 1045  Technical Video Production  3 Credits
This course will focus upon the technical and aesthetic aspects of motion picture photography (using an electronic camera), including image composition, lenses, aperture and shutter speed settings, how to “shoot for editing,” camera mounting equipment, field and studio lighting equipment and techniques, video signal test equipment and theory, and other various related technologies and grip equipment. The course will utilize “expert examples” by world-famous directors of photography and feature hands-on assignments with professional-level facilities and equipment.  Spring and Fall  Prerequisite(s):  VPT 1045

VPT 1050  Electronic Cinematography  3 Credits
This course will focus upon the technical and aesthetic aspects of motion picture photography (using an electronic camera), including image composition, lenses, aperture and shutter speed settings, how to “shoot for editing,” camera mounting equipment, field and studio lighting equipment and techniques, video signal test equipment and theory, and other various related technologies and grip equipment. The course will utilize “expert examples” by world-famous directors of photography and feature hands-on assignments with professional-level facilities and equipment.  Spring and Fall  Prerequisite(s):  VPT 1045

VPT 1090  Campus Broadcast I  3 Credits
Hands-on workshop providing beginning students with an opportunity to participate in live-to-tape studio television productions and to support VPT 1500 students as production crew for a variety of in-studio production. Camera, teleprompter, and character generator (graphics) operation; sound support and other technical aspects of production are included.  Spring and Fall

VPT 1210  Video Editing  4 Credits
The course is the second in a three-course sequence and is designed to increase student skills with Avid software, aesthetic theory, and application and practical use of linear and nonlinear editors.  Spring and Fall  Prerequisite(s):  VPT 1030
VPT 1400  
**Scriptwriting for Mass Media**  
3 Credits  
Writing of visually oriented scripts for the following: commercials, training programs, communications and documentary programs, emphasizing the interdependence between the visual and auditory portions of the script. *Spring and Fall Prerequisite(s): ENGL 1010*

VPT 1500  
**Campus Broadcast II**  
3 Credits  
Studio production course emphasizing the development of producing and directing skills in preparation for developing news/communications programming for Pellissippi State’s on-campus video news magazine. Students will produce and direct studio programming utilizing VPT 1500 students as production crew. *Spring and Fall Prerequisite(s): VPT 1030 and 1045 and 1090 Corequisite(s): VPT 1015 and 1210 and 1400*

VPT 2015  
**Advanced Sound Production**  
3 Credits  
Advanced sound recording, mixing and editing techniques, emphasizing creative control of audio and sound for picture using Pro Tools. Multiple sound tracks with voice, music, effects, foley, and dialog replacement will be produced, edited, mixed, mastered, and output in various formats. *On Demand Prerequisite(s): VPT 1015*

VPT 2215  
**Advanced Editing**  
3 Credits  
Advanced-level film/video editing with Avid nonlinear editors (NLEs). Course designed to train students in advanced-level skills by completing actual projects. Includes instruction in nested effects, keying, color correction and other higher-level processes. Unity LANshare mass storage and at least one HDV project included in instruction. *Fall Prerequisite(s): VPT 1210*

VPT 2330  
**Budgeted Production**  
3 Credits  
A project class focusing on production management principles and budgeting in a collaborative environment. Students will produce a video for a client while working within a fixed budget and deadline. *Fall Prerequisite(s): VPT 1015 and 1045 and 1210 and 1400*

VPT 2400  
**Advanced Scriptwriting**  
3 Credits  
Course addresses the writing of long format scripts that incorporate advanced concepts in dramatic writing for visual media, including the documentary and high-impact videos for corporate/instructional programs. Emphasis will be placed on understanding long form structure through reading and writing. *On Demand Prerequisite(s): VPT 1400*

VPT 2500  
**Campus Broadcast III**  
3 Credits  
Electronic field production (EFP) course. Students will develop story ideas, write scripts, conduct and record video interviews, and edit news packages for the Pellissippi State video news magazine. Emphasis will be placed on establishing high production values, working to deadlines and with a team. *Spring and Fall Prerequisite(s): VPT 1500*

VPT 2660  
**Independent Video Projects**  
3 Credits  
An elective independent production opportunity offered to advanced VPT students in good standing who may wish to work on a project of their choice. Genre may be chosen by students pending approval of supervising instructor or VPT coordinator after submission of complete production plan before the end of the prior semester. Guidelines will be individually negotiated for successful completion of this course. *On Demand Prerequisite(s): VPT 2330 and consent of instructor*

VPT 2770  
**Documentary Production**  
3 Credits  
An advanced project class focusing on the documentary form as an opportunity for an individualized expression. Each student will be responsible for the creation of a documentary designed to communicate his or her point of view on a topical and/or controversial subject or issue. *Spring Prerequisite(s): VPT 2330 and consent of instructor*
VPT 2910 Campus Broadcast IV 3 Credits
Advanced-level participation in the production and management of a campus video news magazine for and about Pellissippi State. Students will supervise the production of college news/communication programming and be responsible for program content, deadlines, technical quality, and assignment of personnel. Course will involve both field and studio production and postproduction. News gathering and writing skills will be emphasized. Spring and Fall
Prerequisite(s): VPT 1400 and 2500

WEB TECHNOLOGY

WEB 2000 Dreamweaver/Fireworks 3 Credits
This course is designed to enhance skills and knowledge of the professional Web author by using cross-platform visual HTML editors, specifically Macromedia’s Dreamweaver and Fireworks, for creating and managing Web sites and pages. The learner will use a variety of techniques, tools and activities designed to develop pages for the commercial/professional Web developer standard. The learner will plan, design, develop, and test fully compliant Web pages which conform to the specification given. Spring and Fall
Prerequisite(s): WEB 2200; or OST 2801 and 2802 and 2803; or CSIT 2645 or equivalent for WEB majors; no prerequisite for CGT majors

WEB 2110 Flash 3 Credits
This fundamental Web-animation course examines and demonstrates essential elements in creating vector-based graphics using Macromedia’s Flash. The topics include vector vs. bitmap images, timelines, special effects and use of plug-ins vs. HTML-only animations. The emphasis of this course will be on creating high-quality Web pages using principles of layout design, color theory as applicable to Web design and preparation of text for the Web. Spring and Fall
Prerequisite(s): WEB 2200; or OST 2801 and 2802 and 2803; or CSIT 2645 or equivalent for WEB majors; CGT 1040 and 2040 for CGT majors

WEB 2120 Audio/Video for the Web 3 Credits
This course is designed to familiarize students with the technologies associated with bringing photographic (film, video and still) images and audio to the Internet environment and enable students to identify and use the tools which facilitate these media in Web sites. Appropriate media selection, software tools for encoding various media, delivery system attributes and limitations, associated file types, audio and video codecs and software players will be discussed. Students will learn to prepare aural and visual media for the Web by creating and encoding assigned projects. On Demand
Prerequisite(s): WEB 2200; or OST 2801 and 2802 and 2803; or CSIT 2645 or equivalent for WEB majors; VPT 1030 for VPT majors

WEB 2200 CIW Foundations 3 Credits
This course teaches basic hands-on skills and knowledge that Internet professionals are expected to understand. The course is divided into three parts: Internet Business Foundations, Site Development Foundations and Network Technology Foundations. After completing this course, students will be prepared to pass the CIW Foundations Certification Exam. Spring and Fall
Corequisite(s): WEB 2291

WEB 2210 CIW Site Designer 3 Credits
This course teaches students how to design and publish Web sites. General topics include Web site development essentials (such as the site development process, customer expectations, and ethical and legal issues in Web development); Web design elements (such as aesthetics, the site user’s experience, navigation, usability, and accessibility); Basic Web technologies (such as Hypertext Markup Language [HTML], Extensible HTML [XHTML], and extended technologies, image files, GUI site development applications, site publishing and maintenance), and advanced Web technologies (such as multimedia and plug-in technologies, client-side and server-side technologies, and Web databases). Spring and Fall
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