

**Central Ohio Technical College  
Course Description Listing  
2005-2006 Academic Year**

## **GENERAL EDUCATION COURSES: 1000**

**ALL STUDENTS MUST TAKE PLACEMENT TESTS PRIOR TO SCHEDULING THE FIRST COMMUNICATIONS OR MATHEMATICS COURSE.**

### **1006 Critical Thinking**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: 1532. Course is graded A-E.

This course, an introduction to logic, teaches students to analyze the media, advertising, and everyday problems -- career, academic, and personal. It aims at equipping students with the basic skills and discipline necessary to make valid judgments.

### **1007 Career Explorations**

2 credit hours, 2 contact hours (2 hours lecture and 0 hours lab). Prerequisite: None. Course is graded A-E.

Career Explorations provides opportunities for students to build confidence and to develop self-reliance while they relate their educational experience to the importance of career planning. The course focuses on self-awareness, job market research, career services and options at COTC, and team building. Students will experience contact with working professionals, class and team discussions, lectures, videos, handouts, readings, on-site visitations, and individual reports.

### **1008 Ethics**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: 1532. Course is graded A-E.

This course studies basic ethical theories. The course balances theory and practice, using case studies and open discussion, and intends to afford students with the necessary knowledge, attitudes, and processes to make appropriate moral decisions.

### **1011 Career Planning I**

1 credit hour, 2 contact hours (0 hours lecture and 2 hours lab). Prerequisite: 1007, or documented enrollment in a technology program, or permission of the Academic Director, or current employment. Course is graded A-E.

This course develops the student's ability to prepare resumes, cover letters, and employment applications. Students examine authentic job materials with emphasis on writing job objectives, using action words, as well as focusing on the benefit factor. Professional appearance of documents is stressed.

### **1012 Career Planning II**

1 credit hour, 2 contact hours (0 hours lecture and 2 hours lab). Prerequisite: 1007, or 1011, or documented enrollment in a technology program, or permission of the Academic Director, or current employment. Course is graded A-E.

Technology Career Planning II prepares the student for the three stages of the interview process: pre-interview planning, interview management, and post-interview follow-up. Specific topics include: 1) company research; 2) interview questions and responses; 3) employer evaluation criterion; 4) positive image; 5) skill reinforcement; and 6) interview reassessment. Emphasis is given to professionalism and persuasive communication. This course is taught through employer contacts, role-play, small group discussion, lectures, videos, and videotaped interviews.

### **1030 Reasoning Skills**

4 credit hours, 5 contact hours (3 hours lecture and 2 hours lab). Prerequisite: Required of first-year students who place into two or more Pre-College Communications courses; Other: None. Course is graded A-E. This course is not open to students with credit for 1406.

This course develops the critical thinking skills needed to analyze situations in personal, academic, and career life. Skills developed include analyzing facts, applying strategies for deep learning, recognizing assumptions, making decisions, evaluating information critically and ethically, and opening one's mind to other options. This course is required of all students who placed in two or more Pre-College Communications courses.

**COTC Course Description Listing -- General Education Courses  
2005-2006 Academic Year****1200 Basic Mathematics**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: None. Not open to students with credit for 3000 or 3002. Course is required for all students scoring below 41 on the ASSET numerical skills test or below 44 on the COMPASS numerical skills test. This course will count neither for elective credit nor toward meeting minimum credit hours for graduation. Course is graded A-E.

Basic Mathematics is designed to develop the student's potential to succeed in other college mathematics courses. The basic arithmetic skills involving whole numbers, fractions, and decimals are reviewed. Also covered are signed numbers, percents, dimension analysis, and the rudiments of algebra.

**1203 Introduction to Geometry**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: C grade (2.00) or better in 1200, or score of at least 41 on ASSET Numerical Skills test, or score of at least 44 on COMPASS Pre-Algebra/Numerical Skills test. This course will count neither for elective credit nor toward meeting minimum credit hours for graduation. Course is graded A-E.

This course is an introduction to elementary geometric concepts. It includes the study of lines, angles, triangles, polygons, circles and solids. Right triangle trigonometry and classic geometric constructions are also explored. This course is problem-solving oriented rather than proof-oriented.

**1204 Business Math**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: C grade (2.00) or better in 1200, or score of at least 41 on ASSET numerical skills test or score of at least 44 on COMPASS pre-Algebra/Numerical Skills Test. Course is graded A-E. This course is not open to students with credit for 1201 or 1202.

This course is a study of basic business arithmetic. It presents the concepts and applications of percentages, payroll, insurance, consumer interest, loans, and other common business computations.

**1205 Introduction to Algebra**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: C grade (2.00) or better in 1200, or score of at least 41 on ASSET Numerical Skills test, or score of at least 44 on COMPASS Pre-Algebra/Numerical Skills test. This course will count neither for elective credit nor toward meeting minimum credit hours for graduation. This course is not open to students with credit for 1210. Course is graded A-E.

This course is an introduction to elementary algebraic concepts. It includes operations with real numbers, exponents and radicals, variable expressions, first degree equations, word problems, formulas and graphing. The student will develop the ability to use a scientific calculator efficiently.

**1208 Elementary Statistics**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: C grade (2.00) or better in 1205 or a score of at least 43 on the COMPASS Elementary Algebra Test or score of at least 10 on the COTC Algebra Skills Test. This course is not open to students with credit for 1224, 1230 or 2030. Course is graded A-E.

This is an introductory course in descriptive and inferential statistics. Topics covered include summarizing data with frequency tables; pictures of data; measures of center, variation and position; exploratory data analysis; probability; probability distributions; normal probability distributions; estimates and sample sites; hypothesis testing; inferences from two samples; correlation and regression. Concepts are explained intuitively and supported by examples. The applications are general in nature, and the exercises include problems from agriculture, biology, business, economics, education, environmental studies, psychology, engineering, medicine, sociology, and computer science.

**1210 College Algebra**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: C grade (2.00) or better in 1205, or score of at least 10 on COTC Algebra Skills test, or score of at least 43 on COMPASS Elementary Algebra test. This course is not open to students with credit for 3010. Course is graded A-E.

This course is a study of intermediate algebraic operations. It includes solving equations and inequalities, factoring, rational expressions, radicals, systems of equations, and graphing.

**COTC Course Description Listing -- General Education Courses  
2005-2006 Academic Year****1223 Basic Chemistry**

6 credit hours, 7 contact hours (5 hours lecture and 2 hours lab). Prerequisite: C grade (2.00) or better in (1205 or 1210), or score of at least 10 on COTC Algebra Skills test, or score of at least 43 on COMPASS Elementary Algebra test. This course will count neither for elective credit nor toward meeting minimum credit hours for graduation. Course is graded A-E.

An introduction to the basic concepts of chemistry designed to serve as a foundation (or refresher) for the student about to enter the study of allied health sciences.

The course includes the following topic areas: metrics; elements, compounds and mixtures; atomic structure; bonding; chemical reactions, energy of reactions; oxidation-reduction; gas laws, solids and liquids; liquid mixtures; acids, bases and salts; and a brief look at fluid-electrolyte balance.

**1226 Trigonometry**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: 1210 or a score of at least 76 on the COMPASS Elementary Algebra test. Course is graded A-E.

Exponential and logarithmic functions and concepts of trigonometry, including the graphing of trigonometric functions, are discussed.

**1227 Chemistry Fundamentals**

6 credit hours, 7 contact hours (5 hours lecture and 2 hours lab). Prerequisite: (High School Algebra or 1205 or equivalent) and High School Chemistry. All prerequisite courses must have a grade of "C" (2.00) or better. Course is graded A-E.

This general, organic and biochemistry course is designed to serve as a foundation for the student about to enter the study of allied health sciences. Topics covered include: metrics, elements, compounds, mixtures, atomic structure bonding, chemical reactions, energy of reactions, oxidation-reduction, solids and liquids, liquid mixtures, acids, bases, salts, a brief look at fluid-electrolyte balance, fundamentals of nuclear chemistry, properties of organic molecules and biological macromolecules. The laboratory portion of this course enhances the theories and concepts presented in lecture.

**1228 General Organic Chemistry**

6 credit hours, 7 contact hours (5 hours lecture and 2 hours lab). Prerequisite: Success completion of 1205 or 1210, or a score of ten on the COTC Algebra Skills Placement Test and 1223. Course is graded A-E.

The course discusses the structures, reactions, properties, and naming of simple organic compound classes, including hydrocarbons, working up to the more complex biological compounds.

**1231 Calculus**

4 credit hours, 4 contact hours (4 hours lecture and 0 hours lab). Prerequisite: 1226 (or 3020) or a score of at least 46 on the COMPASS Trigonometry test. Course is graded A-E.

An introduction to the principles of Analytic Geometry to develop an understanding of graphic functions. These concepts are expanded to the calculus or rate of change expressed through algebraic functions, derivatives, maximum and minimum velocity, temperature, costs and the applications of the integral in areas, volumes, pressure, power, electrical charge, and work; with the emphasis on their application as related to the engineering technician.

**1381 Sociology**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: None. This course is not open to students with credit for 1380, 1387, 1390 or 1391. Course is graded A-E.

Sociology is the study of social groups and social issues with emphasis on their effects on modern workers. Topics will be presented through lectures, films, and classroom discussion. This course is not open to students with credit for 1380 or 1390.

**COTC Course Description Listing -- General Education Courses  
2005-2006 Academic Year****1383 Psychology of Adjustment**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: ASSET score of 44 or higher or COMPASS score of 85 or higher or satisfactory completion of 1023. Course is graded A-E. Not open to students with credit for 1393.

This course deals with issues related to personal growth and adjustment. Topics covered include basic research methods, personality, aspects of the self, social influence, interpersonal attraction and communication, emotional expression, sexual expression, adolescent and adult development, gender roles and mental health.

**1384 Psychology for Nurses**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: Acceptance and enrollment in a COTC Nursing Technology program. Course is graded A-E.

This course will provide an introduction to basic research methods in psychology, theoretical systems, principles of learning, information processing, intelligence and intelligence testing, motivation and emotion, personality theories, and social psychology. This course will not be accepted as a substitute for 1386 General Psychology in other technologies.

**1385 Organizational Psychology**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: None. Course is graded A-E.

Organizational Psychology is an introduction to the application of the methods, facts, and principles of psychology of human behavior within work organizations. Topics include history and use of applied psychology, causation and purpose in behavior, leadership, group problem solving and group leadership, evaluating individual abilities, motivating workers for optimum performance, job fatigue, and counseling skills for managers. Course objectives are achieved through lecture and discussion, role-playing exercises, and written projects.

**1386 General Psychology**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: ASSET score of 44 or higher or COMPASS score of 85 or higher and satisfactory completion of 1023 or permission of the instructor or Academic Director. This course is not open to students with credit for 1395 or 1396. Course is graded A-E.

General Psychology provides an introduction to the areas of basic theoretical constructs, nervous system functioning, perception, learning, memory, emotion, cognition, intelligence, personality theories, stress, social psychology and psychology.

**1389 Cultural Diversity**

3 credit hours, 4 contact hours (2 hours lecture and 2 hours lab). Prerequisite: None. This course is not open to students with credit for 1392 or 1399. Course is graded A-E.

This course focuses on the differences and similarities among racial, ethnic, and other diverse populations in the United States and includes historical, religious, and socio-cultural issues and current conflicts.

**1397 Abnormal Psychology**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: 1393 or 1386 (or permission of the instructor). Course is graded A-E.

Abnormal psychology is the study of maladaptive behaviors with emphasis on etiology, classification and symptom recognition. Major areas of study include general theoretical perspectives, anxiety disorders, sexual variations and dysfunctions, personality disorders, schizophrenia and substance-use disorders. Topics will be presented through lecture/class discussion, structured class activities and films.

**1398 International Relations**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: 1532. Course is graded A-E.

International Relations is the study of the geography, history, culture, religion, and political and economic processes of significant modern nations. Topics will be presented through lectures, films, classroom discussion and individual research.

**COTC Course Description Listing -- General Education Courses  
2005-2006 Academic Year****1399 Cultural Diversity for Law Enforcement**

3 credit hours, 4 contact hours (2 hours lecture and 2 hours lab). Prerequisite: Open to Criminal Justice students only. This course is not open to students with credit for 1389 or 1392. Course is graded A-E.

This course focuses on the differences and similarities among racial, ethnic, and other diverse populations in the United States and includes historical, religious, and sociocultural issues and current conflicts.

**1400 Basic Writing Skills**

4 credit hours, 5 contact hours (3 hours lecture and 2 hours lab). Prerequisite: None. However, 1400 is required of all students scoring below 75 on the COMPASS writing skills test or below 42 on the ASSET writing skills test. Course is not open to students with credit for 1110, 1500, 1501 or 1510. This course will count neither for elective credit nor toward meeting minimum credit hour requirements for graduation. Course is graded A-E.

This course provides the opportunity to strengthen written language skills with emphasis on the writing process, sentence structure, unified paragraphs, word usage, capitalization, punctuation, and spelling.

**1413 Basic College Success Skills**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: None. This course is required of all students scoring below 85 on Compass Reading Skills or below 44 on ASSET Reading Skills. Course is not open to students with credit for 1013 or 1015. This course will count neither for elective credit nor toward meeting the minimum credit hour requirements for graduation. Course is graded A-E.

College success skills are those skills that the student must master in order to function and succeed within the structure of college life. Many of these skills will carry over into the world of work. Skills developed in this course include basic organizational techniques such as time management, memory and concentration, prioritizing tasks, and goal setting. Academic skills include identifying individual learning styles, note taking, and test taking skills.

**1423 Basic Reading Skills**

3 credit hours, 4 contact hours (2 hours lecture and 2 hours lab). Prerequisite: None; however, this course is required of all students scoring below 85 on the COMPASS reading skills test or below 44 on the ASSET reading skills test. Course is graded A-E. This course will count neither for elective credit nor toward meeting the minimum credit hour requirements for graduation. This course is not open to students with credit for 1023.

Critical reading skills necessary for successful use of college level reading materials are the focus of this course. Critical reading and vocabulary building skills covered include: features of textbooks, interpreting graphics, identifying main ideas and supporting details, textbook marking and annotating, vocabulary building, dictionary usage, and reading systems. This course may be taken concurrently with College Success Skills.

**1424 English for Speakers of Other Languages (ESOL) I**

2 credit hours, 3 contact hours (1 hour lecture and 2 hours lab). Prerequisite: Self placement or ESL Compass Score of XXXX. Course is graded S/U.

English for Speakers of Other Languages I (ESOL I) focuses on basic sentence structure and the writing process, developing a reflective writing portfolio, and basic reading comprehension skills. ESOL I is a technology assisted instruction course that utilizes a constructivist humanistic methodology in developing basic American English skills required for successful entry into college level technology courses. This course is graded on a Satisfactory/Unsatisfactory basis.

**1425 English for Speakers of Other Languages (ESOL) II**

2 credit hours, 3 contact hours (1 hour lecture and 2 hours lab). Prerequisite: Successful completion of 1424 ESOL I or ESL Compass Score of XXXX. Course is graded S/U.

English for Speakers of Other Languages II (ESOL II) focuses on basic sentence structure and the writing process, developing a reflective writing portfolio, and basic reading comprehension skills. ESOL II is a technology assisted instruction course that utilizes a constructivist humanistic methodology in developing basic American English skills required for successful entry into college level technology courses. This course is graded on a Satisfactory/Unsatisfactory basis.

**COTC Course Description Listing -- General Education Courses  
2005-2006 Academic Year****1504 Public Speaking**

3 credit hours, 4 contact hours (2 hours lecture and 2 hours lab). Prerequisite: 1533 or 1514 or equivalent. This course is not open to students with credit for 1112, 1509, 1509.1, 1512, or 1521. Course is graded A-E.

This course emphasizes instruction and practical experience in public speaking. Students learn to analyze audiences, select topics, apply research learned, organize, and present a series of extemporaneous speeches. This course introduces other interpersonal and intrapersonal communications skills, including listening, non-verbal communications, and small group communications.

**1514 Contemporary Fiction**

5 credit hours, 5 contact hours (5 hours lecture and 0 hours lab). Prerequisite: 1532 or equivalent. 1514 may be taken in place of 1533. Course is graded A-E.

This course acquaints the student with various pieces of contemporary fiction. The student reads noteworthy novels and short stories and writes essays demonstrating his/her analysis and understanding of these texts.

**1523 Small Group Communications**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: 1533 or 1514 or equivalent. Course is not open to students with credit for 1115 or 1515. Course is graded A-E.

Students practice the techniques of defining, researching, planning, and group decision making in a series of five conferences, stressing leadership, participation, and responsibility.

**1525 Technical Writing**

3 credit hours, 4 contact hours (2 hours lecture and 2 hours lab). Prerequisite: 1533. Course is graded A-E. This course is not open to students with credit for 1113, 1505, 1513, or 1522.

Training in writing techniques used in business, industry, and public service is stressed. The student prepares, edits, and submits memoranda, letters, reports, and resumes.

**1531 National Issues**

3 credit hours, 3 contact hours (3 hours lecture and 0 hours lab). Prerequisite: 1532. This course is not open to students with credit for 1530. Course is graded A-E.

The course explores the economical, historical and geo-political nature and ramification of several current issues facing the people of the United States. Each issue will be studied in depth. It requires synthesis and fine-tuning of the basic communicative skills--thinking, listening, speaking, reading, and writing. Frequent oral and written reports are required.

**1532 Composition I**

4 credit hours, 5 contact hours (3 hours lecture and 2 hours lab). Prerequisite: ASSET placement or C grade (2.00) or better in 1400 (or a score of at least 75 on the COMPASS writing skills test, or a score of at least 85 on the COMPASS reading skills test, or a score of at least 44 on the ASSET reading skills test. Course is graded A-E. Course is not open to students with credit for 1111, 1502, 1532, 1508, 1511 or 1520.

Composition I introduces the student to college writing. The student will practice the writing process including: pre-writing, draft writing, editing, revision, and peer review. This course will emphasize collaborative essay development via the writing process. The course introduces basic research skills, library use and source documentation skills. The student reads and writes narrative, descriptive, and comparison/contrast essays.

**COTC Course Description Listing -- General Education Courses  
2005-2006 Academic Year****1533 Composition II**

4 credit hours, 5 contact hours (3 hours lecture and 2 hours lab). Prerequisite: 1532 or equivalent. Course is graded A-E. Course is not open to students with credit for 1533.

Composition II continues development of skills introduced in Composition I. The research process will be expanded and emphasized and the student will write a variety of expository and argumentative papers with an emphasis on research. The student in this course will practice collaborative writing as well. Use of the Library and online resources and referencing techniques will be covered; the student will be expected to adhere to the conventions of standard American English.

**1534 Effective Communications**

4 credit hours, 5 contact hours (3 hours lecture and 2 hours lab). Prerequisite: 1532 and 1533. Course is graded A-E.

This course is constructed to help the student meet those needs identified as critical by the local business and professional community. It focuses the student on further development of their communication skills as well as their methods of delivery in the workforce. Skills emphasized include presenting effective verbal communications for one-on-one and group formats, assessing effectiveness of written and oral presentations, enhancing awareness of listening barriers, in addition to identifying and adjusting to non-verbal cues of audience. Development in methods of delivery include selecting and utilizing a variety of appropriate tools such as electronic media and graphics.

**1600 Principles of Computing**

1 credit hour, 2 contact hours (0 hours lecture and 2 hours lab). Prerequisite: None. S/U Graded Course. Course is not open to students with credit for 2921,2900, 2500, or 3012.

Principles of Computing introduces the student to basic computer uses. The course includes an understanding of computers and how they function. The student will identify and use hardware and software. Both operating systems and application software will be introduced. The student will become familiar with common application programs including word processing, data base, spreadsheet, graphics, presentation, web authoring, and email accounts. The course is graded Satisfactory/Unsatisfactory.