

HOLLY SPRINGS HIGH SCHOOL

CAREER & TECHNICAL EDUCATION COURSE DESCRIPTIONS FOR 2007-8

BUSINESS & INFORMATION TECHNOLOGY

Computer Applications I

Course Number: 6411

This course is designed to help students master advanced skills in the areas of word processing, database management, spreadsheet, telecommunications, desktop publishing, and presentation applications. Emphasis is on data communications, Internet and e-mail, as well as skill development in the integration of software applications, ethical issues pertaining to information systems, and information technologies careers.

Communication skills and critical thinking are reinforced through software applications. Work-based learning strategies appropriate for this course are service learning, field trips, and job shadowing. Simulations, projects, teamwork, and FBLA leadership activities, meetings, conferences, and competitions provide opportunities for application of instructional competencies.

Prerequisite: Keyboarding Skill — defined as a minimum of 35 words per minute with errors corrected; format from rough draft copy of an announcement, memorandum, personal business letter, and unbound report; and exhibit proper keyboarding techniques.

Computer Applications II

Course Number: 6412

This course is designed to help students master advanced skills in the areas of integrating technology devices, Internet research strategies and uses, complex desktop publishing, multimedia production, and basic web page design. Emphasis is placed on skill development and refinement of skills in information technologies as well as economic, ethical, and social issues in the information technologies area. Communication skills and critical thinking are reinforced through software applications. Work-based learning strategies appropriate for this course are school based enterprises, internships, cooperative education, and apprenticeship. Simulations, projects, teamwork, and FBLA leadership activities, meetings, conferences, and competitions provide opportunities for application of instructional competencies.

Prerequisite: Computer Applications I

Digital Communication Systems

Course Number: 6514

This course is designed to teach basic digital input skills including keying using the touch method, speech recognition, and use of handheld devices. Emphasis is on the daily use and operation of commonly used digital communication devices to develop skill with concentrated application of those skills in the production of business communication and correspondence. Communication skills are reinforced as the student's format, compose, and proofread. Work-based learning strategies appropriate for this course are service learning, field trips, and job shadowing. Simulations, projects, teamwork, and FBLA leadership activities, meetings, conferences, and competitions provide opportunities for application of instructional competencies.

Prerequisite: None

Principles of Business and Personal Finance

Course Number: 6200

This course introduces the major principles and concepts that are the foundation for future study of business and management. Topics of study include basic business principles, personal finance concepts, management concepts, systems thinking, quality management, and the current environment for business in a multinational marketplace. Communication skills and basic mathematical concepts are reinforced in this course. Work-based learning strategies appropriate for this course are field trips and job shadowing. Simulations, projects, teamwork, and FBLA leadership activities, meetings, conferences, and competitions provide opportunities for application of instructional competencies.

Prerequisite: None

Marketing

Course Number: 6621

This course is designed to help students develop basic knowledge, skills, and attitudes that will prepare them to enter the field of marketing. The course, which focuses on the National Marketing Education Standards and the National Curriculum Framework, emphasizes the foundations of business, management, and entrepreneurship; economics; professional development; and communication and interpersonal skills. Included in these foundations are concepts such as distribution, financing, selling, pricing, promotion, marketing-information management, and product/ service management. Skills in communications, mathematics, and psychology are reinforced in this course. Work-based learning strategies appropriate for this course include job shadowing, paid/unpaid internships, school-based enterprises, field trips, and/or cooperative education. Marketing simulations, projects, teamwork, DECA leadership activities, meetings, conferences, and competitions provide many opportunities for application of instructional competencies.

Prerequisite: None

CAREER DEVELOPMENT

Career Management

Course Number: 6145

This course is designed to prepare students to locate, secure, keep, and change careers. Competencies for this course are based on the National Career Development Guidelines. Strategies for this course include teamwork, technology, problem-solving, decision-making, goal setting, and self-management.

Prerequisite: None

FAMILY & CONSUMER SCIENCE

Apparel Development I

Course Number: 7035

This course examines clothing production in the areas of preparation for clothing construction, basic clothing construction techniques, consumer decisions, textiles, historical perspectives and design, and career opportunities. Emphasis is placed on students applying these construction and design skills to apparel and home fashion. Skills in art, communication, mathematics, science, and technology are reinforced in this course. Work-based learning strategies appropriate for this course include field trips, job shadowing, and services learning. FCCLA leadership activities provide the opportunity to apply instructional competencies and workplace readiness skills to authentic experiences.

Prerequisite: None

Apparel Development II

Course Number: 7036

This course focuses on advanced clothing and housing apparel development. The use of fibers and fabrics is combined with design and construction techniques to develop and produce a clothing or housing apparel product. A real or simulated business apparel enterprise and FCCLA activities allow students to apply instructional strategies and workplace readiness skills to an authentic experience and to develop a portfolio. Skills in science, mathematics, management, communication, and teamwork are reinforced in this course. Work-based learning strategies appropriate for the course include school-based enterprises, field trips, job shadowing, and service learning.

Prerequisite: [Apparel Development I](#)

Early Childhood Education I

Course Number: 7111

This is a two-block course prepares students to work with children birth to age 8. Emphasis is placed on enhancing the development of young children while providing early education and care. Topics include stages of development, health, safety, guidance, and developmentally appropriate activities. This course is a two-credit

course with work based learning comprising over 50 percent of the required coursework. Students who will be participating in work-based learning experiences in child care centers should be 16 years of age prior to the beginning of the work-based placement (North Carolina Child Care General Statute 110.91, Section 8). The work-based learning strategies appropriate for this course include school-based enterprises, internships, cooperative education, service learning, field trips, job shadowing, and apprenticeships. Industry skill development and FCCLA leadership activities provide the opportunity to apply instructional competencies and career management skills to authentic experiences. Parenting and Child Development is a recommended prerequisite for this course.

Prerequisite: None

Foods I – Fundamentals

Course Number: 7045

This course examines the nutritional needs of the individual. Emphasis is placed on the relationship of diet to health, kitchen and meal management, and food preparation. Skills in science and mathematics are reinforced in this course. Work-based learning strategies appropriate for this course include field trips, job shadowing, and service learning. FCCLA leadership activities provide the opportunity to apply instructional competencies and workplace readiness skills to authentic experiences.

Prerequisite: None

Foods II – Advanced

Course Number: 7046

This course focuses on advanced food preparation techniques while applying nutrition, food science, and test kitchen concepts using new technology. Food safety and sanitation receive special emphasis, with students taking the exam for the ServSafe® credential from the National Restaurant Association. Students develop skills in preparing foods such as beverages, salads and dressing, yeast breads, and cake fillings and frostings. A real or simulated in-school food business component allows students to apply instructional strategies and workplace readiness skills to an authentic experience to develop a portfolio and to enhance FCCLA activities. Skills in science, math, management, and communication are reinforced in this course. Work-based learning strategies appropriate for this course include school-based enterprises, field trips, job shadowing, and service learning.

Prerequisite: Foods I - Fundamentals

Teen Living

Course Number: 7015

This course examines life management skills in the areas of personal and family living; wellness, nutrition, and foods; financial management; living environments; appropriate child development practices; fashion and clothing; and job readiness. Emphasis is placed on students applying these skills during their teen years. Through simulated experiences, they learn to fulfill their responsibilities associated with the work of the family and community. Skills in mathematics, communication, science, technology, and personal and interpersonal relationships are reinforced in this course. Work-based learning strategies appropriate for this course include field trips and service learning. FCCLA leadership activities provide the opportunity to apply instructional competencies and workplace readiness skills to authentic **experiences**.

Prerequisite: None

Family and Consumer Sciences Advanced Studies

Course Number: 7199

This culminating course is for seniors who are career focused in the apparel design, community and family services, culinary arts and hospitality, early childhood education, food science, dietetics, and nutrition; or interior design career areas. The three parts of the course include a research paper, a product, and a presentation. Students demonstrate their abilities to use content and apply knowledge to authentic situations in a selected career. In addition, they will also demonstrate their abilities to write, speak, solve problems, and to use life skills such as time management and organization. Students work under the guidance of a teacher-

facilitator in collaboration with community members, business representatives, and other school-based personnel. FCCLA leadership activities provide the opportunity to apply instructional competencies and workplace readiness skills to authentic experiences.

Prerequisite: Three technical credits in Family and Consumer Sciences Education

HEALTH OCCUPATIONS

Biomedical Technology

Course Number: 7200

This survey course challenges students to investigate current and 21st century medical and health care practices using computerized databases, the Internet, media, and visiting health team professionals. Topics include the world of biomedical technology, the language of medicine, present and evolving biomedical specialties, biomedical ethics: crises and alternatives, and health career development. Work-based learning strategies include service learning, field trips, and job shadowing. Skills in science, mathematics, communications, health, and social studies are reinforced in this course. HOSA membership provides opportunities for personal and experiential growth.

Prerequisite: None

Health Team Relations

Course Number: 7210

This course is designed to assist potential health care workers in their role and function as health team members. Topics include terminology, the history of health care, health care agencies, ethics, legal responsibilities, careers, holistic health, human needs, change, cultural awareness, communication, medical math, leadership, and career decision-making. Work-based learning strategies include service learning, field trips, and job shadowing. Basic academic skills, employability skills, critical thinking skills, teamwork, and the use of technology are reinforced in this course. HOSA leadership activities provide many opportunities for **practical application of instructional competencies.**

Prerequisite: None

Medical Sciences I

Course Number: 7221

This course uses advanced investigative approaches to the study of human and social sciences as related to medicine and health care. Emphasis includes the language of medicine, body chemistry, anatomy and physiology, and the current and futuristic study of diseases and disorders. Work-based learning strategies include service learning, field trips, and job shadowing. Skills in science, mathematics, health, and social studies are reinforced in this course. HOSA competitive events serve as instructional strategies that reinforce the curriculum content. Biology, Algebra I, and Health Education are recommended prerequisites.

Prerequisite: None

Medical Sciences II

Course Number: 7222

This specialized course is designed to prepare potential health care workers, preferably seniors, for performance in an advanced technical or professional health career. Emphasis is placed on professional development, communications, safety, bioethical/legal practices, healthcare delivery systems, assessment and diagnostic practices, health maintenance practices, and problem-solving and decision-making. Skills in mathematics, science, and communications are reinforced in this course. Work-based learning strategies include the development of individualized clinical skills specifically related to a selected mentorship (minimum of 45 hours) with an exemplary health professional. HOSA activities support networking with health care agencies and professionals through the development of clinical expertise and volunteerism.

Prerequisite: Allied Health Sciences I or Medical Sciences I

Health Science Advanced Studies

Course Number: 7299

This culminating course is for seniors who are career-focused in a health or medical career. The three parts of the course include a research paper, a product, and a presentation. Students demonstrate their abilities to use content and apply knowledge to real-world situations in a selected career. In addition, they will also demonstrate their abilities to write, speak, apply knowledge, problem solve, and use life skills such as time management and organization. Students work under the guidance of a teacher-facilitator in collaboration with community members, business representatives, and other school-based personnel. HOSA membership provides avenues for applying leadership skills, reinforcing writing and speaking skills, and participating in volunteer activities.

Prerequisite: Three credits in Health Occupations Education

TECHNOLOGY EDUCATION

Communication Systems

Course Number: 8125

This course introduces students to classical and contemporary visual, audio and electronic communication using state-of-the-art technology. Emphasis is placed on analyzing, designing, testing and evaluating communication systems such as: computer operating systems, the Internet, electronic, optical and digital communication systems, and concentrated areas of study determined by students and their teacher. Activities are structured to integrate physical and social sciences, mathematics, language and fine arts, and technical studies. Work-based learning strategies appropriate for this course include school-based enterprise, job shadowing, and service learning projects. This course and TSA technical and leadership activities develop skills essential for students interested in pursuing technical or engineering careers in communication related fields.

Prerequisite: Fundamentals of Technology

Fundamentals of Technology

Course Number: 8110

This course provides prerequisite hands-on experiences in principles and processes essential for the study of the technology systems courses and develops a foundation for students interested in any technical field of study. Emphasis is placed on problem-solving, design, technical communication, modeling, testing, evaluation, and implications of technology. Activities are structured to integrate physical and social sciences, mathematics, language and fine arts. Work-based learning strategies appropriate for this course include job shadowing and field trips. This course and TSA technical and leadership activities develop skills essential for students interested in technical or engineering career fields.

Prerequisite: None

Scientific and Technical Visualization I

Course Number: 8006

Recommended Maximum Enrollment: 20

This state-of-the-art course introduces students to the use of complex graphic tools. Emphasis is placed on the use of these tools to understand better technical, mathematical and/or scientific concepts. Emphasis is placed on the use of complex graphic tools to better understand a given mathematics, and/or scientific concept. Visualization activities may include graphics of mathematical models, molecular structures, topographical maps, stratospheric and climate models, and statistical analysis. Computer, communication, mathematics and scientific concepts are reinforced in this course. Job shadowing is an appropriate work-based learning strategy for this course. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Prerequisite: None

Technology Advanced Studies

Course Number: 8005

Students select and pursue a topic of interest using knowledge and skills gained from previous technical and

academic courses. Emphasis is placed on having the students select, direct, and evaluate their own study while using complex technological tools. This study allows the integration of science, mathematics, or language arts, the fine arts, and social studies with the application of technology. This course is for students who have completed three technical credits in Technology Education. Work-based learning strategies appropriate for this course include school-based enterprise, job shadowing, service-learning projects, apprenticeship, cooperative education, and internship. This course and TSA technical and leadership activities allows students to pursue in-depth research and experimentation within virtually all fields of study including science technology, engineering and mathematics.

Prerequisite: Fundamentals of Technology

TRADE & INDUSTRIAL EDUCATION

Drafting I

Course Number: 7921

This course introduces students to the use of simple and complex graphic tools used to communicate and understand ideas and concepts found in the areas of architecture, manufacturing, engineering, science, and mathematics. Topics include problem-solving strategies, classical representation methods such as sketching, geometric construction techniques, as well as CAD (computer assisted design), orthographic projection, and 3-D modeling. Skills in communication, mathematics, science, leadership, and problem-solving are reinforced in this course. Job shadowing is an appropriate work-based learning strategy for this course. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Prerequisite: None

Drafting II - Architectural

Course Number: 7962

This course is focused on the principles, concepts, and use of complex graphic tools used in the field of architecture, structural systems, and construction trades. Emphasis is placed on the use of CAD tools in the creation of floor plans, wall sections, and elevation drawings. Mathematics, science, and visual design concepts are reinforced. Work-based learning strategies appropriate for this course are apprenticeship and cooperative education. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Prerequisite: Drafting I

Drafting II - Engineering

Course Number: 7972

This course focuses on engineering graphics introducing the student to symbol libraries, industry standards, and sectioning techniques. Topics include coordinate systems, principles of machine processes and gearing, and the construction of 3-D wireframe models using CAD. Mathematics, science, and mechanical engineering concepts involving the working principles and design of cams and gears are reinforced in this course. Work-based learning strategies appropriate for this course are apprenticeship, internships, and cooperative education. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Prerequisite: Drafting I

Construction Technology I

Course Number: 7721

This course provides a basic introduction to construction work and the technical aspects of carpentry. Topics include safety, measurement, and the identification, selection, and use of tools, equipment, lumber, materials, and fasteners. Basic skills, leadership, career development, thinking and reasoning skills, mathematics, and principles of technology are reinforced. Job shadowing is an appropriate work-based learning strategy for this course. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance

classroom instruction and career development.

Prerequisite: None

Construction Technology II

Course Number: 7722

This course covers in depth advanced technical aspects of carpentry with emphasis on development of skills introduced in level I. Topics include plans, framing, footings, foundations, wall sheathing, insulation, vapor barriers, gypsum board, and underlayment. Skills in measurement, leadership, safety, mathematics, and problem solving are reinforced in this course. Work-based learning strategies appropriate for this course are cooperative education and apprenticeship. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development. Geometry is a recommended prerequisite.

Prerequisite: Construction Technology