

**GILCHRIST**  
COUNTY SCHOOL DISTRICT

# **Career & Technical Education**

**2022-2023**

# Carpentry

Have you noticed the construction industry is booming? Acquire the skills you need to join the workforce in the field of construction. The Carpentry Program at Trenton High School provides students with the opportunity to learn basic skills of construction and earn two industry certifications through the National Center of Construction Education and Research. Students will receive hands-on opportunities to practice their carpentry skills through a variety of building projects.

*This program is open to all incoming ninth graders in Bell and Trenton, with school-to-school transportation provided by the district. Students must apply in order to be considered for acceptance into the Carpentry Program.*

## Program of Study

Carpentry fundamental  
Carpentry Layout  
Carpentry Framing  
Carpentry Exterior  
Carpentry Finish

## Industry Certifications

NCCER Carpentry Lvl 1  
NCCER Carpentry Lvl 2

## Career Opportunities

Carpenter  
Framer  
Construction Worker  
Site Superintendant



# Carpentry- Courses

## **8104310 Carpentry Fundamentals**

The purpose of this course is for the student to develop competencies essential to the carpentry industry including safety, use of manual and power tools, applied math, construction plan drawing, building materials, fasteners and hardware, rigging and scaffolding, sustainability and employability skills.

## **8104320 Carpentry Layout**

The purpose of this course is for the student to continue developing competencies essential to the carpentry profession. These competencies include site preparation and layout, building foundations, engineered structural lumber and floor system framing.

## **8104330 Carpentry Framing**

This course focuses on framing walls and roofs, and provides an understanding of hurricane codes.

***\*Honors Credit\****

## **8104340 Carpentry Exterior**

This course provides students with knowledge and skills pertaining to cold-formed steel framing, exterior stair construction, roofing applications, thermal and moisture protection and window and door installation.

***\*Honors Credit\****

## **8104350 Carpentry Finish**

This course provides students with knowledge and skills pertaining to finish carpentry. Competencies covered include drywall installation, cabinetry and an overview of construction documents.

***\*Honors Credit\****

# Carpentry- Courses

## **8700400 Architecture and Construction Cooperative OJT**

The purpose of this course is to provide an Architecture and Construction on-the-job training component when the cooperative method of instruction is appropriate.

Whenever the cooperative method is offered, the following is required for each student: A training agreement; a training plan signed by the student, teacher and employer, including instructional objectives; a list of on-the-job and in-school learning experiences; a workstation which reflects equipment, skills and tasks which are relevant to the occupation which the student has chosen as a career goal; and a site supervisor with a working knowledge of the selected occupation. The workstation may be in an industry setting or in a virtual learning environment. The student must be compensated for work performed.





# Engineering

Are you thinking about your future? Are you looking for an exciting career with lots of opportunities for advancement?

The Engineering Pathways Program will prepare students to understand and apply cornerstone technological concepts and processes. The program will engage students in the design, development, and engineering of practical solutions to a wide variety of real-world problems. Engineering students typically work in small groups, which encourages student application of science, physics, and mathematics in the problem-solving process. Students can earn industry certifications in AutoCAD as a certified user and certified professional, and also in SolidWorks as a certified user and professional.

## Program of Study

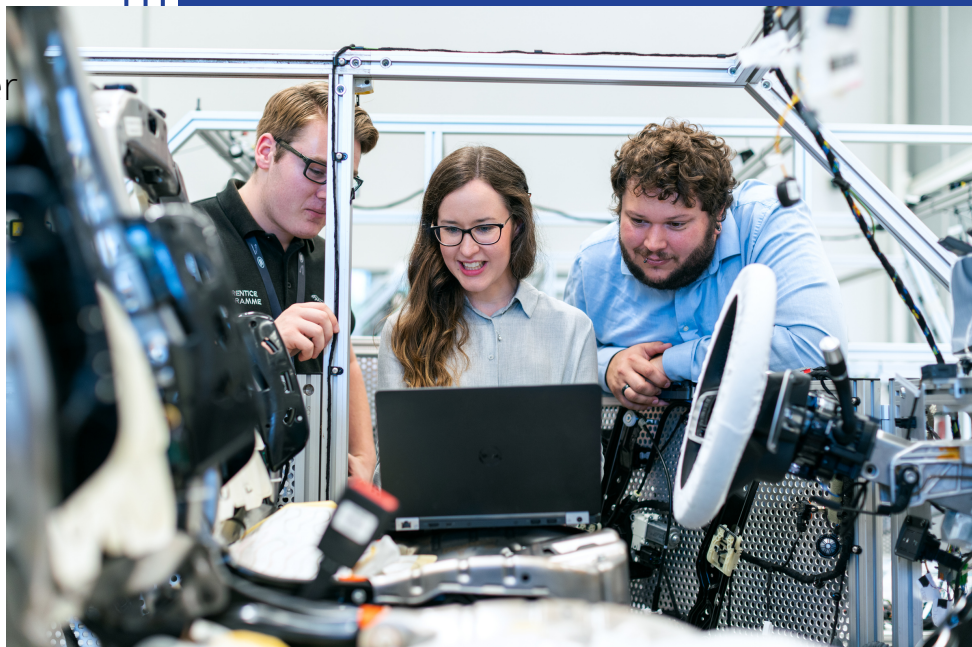
Intro to Engineering

## Industry Certifications

AutoCAD Certified User  
Certified SolidWorks Associate  
Autodesk Fusion360 Certified User  
Autodesk Certified Inventor

## Career Opportunities

Engineer



# Courses-Engineering

## **8600550 Introduction to Engineering Design**

This course exposes students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. Students will employ engineering and scientific concepts in the solution of engineering design problems. In addition, they will learn to use 3D solid modeling design software to design solutions to problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions, document the process, and communicate the results.

## **8600520 Principles of Engineering**

This course helps students understand the field of engineering/engineering technology and prepares them for postsecondary engineering programs by developing a more in-depth mastery of the required knowledge and skills in mathematics, science, and technology.

Through problem-based learning strategies, students study key engineering topics, including mechanisms, energy sources, energy applications, machine control, fluid power, statics, material properties, material testing, statistics, and kinematics. Exploring various technology systems and manufacturing processes help students learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people. The course also includes concerns about social and political consequences of technological change.

# Courses-Engineering

## **8600530 Digital Electronics**

This is a course in applied logic that encompasses the application of electronic circuits and devices. Students are exposed to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices.

## **8600590 Civil Engineering & Architecture**

This course provides an overview of the fields of Civil Engineering and Architecture while emphasizing the interrelationship and dependence of both fields on each other. Students use state-of-the-art software to solve real-world problems and communicate solutions to hands-on projects and activities. This course covers topics such as the Roles of Civil Engineers and Architects, Project Planning, Site Planning, Building Design, and Project Documentation and Presentation.

## **8601800 Work-Based Experience**

Work-Based Experience is the appropriate course to provide Engineering & Technology Education students with the opportunity, as student learners, to gain real world practical, first-hand exposure in broad occupational clusters or industry sectors through a structured, compensated or uncompensated experience. Work-Based Experience (WBE) is also designed to give student learners an opportunity to apply and integrate the knowledge, skills, and abilities acquired during their school-based experience to actual work situations independent of school facilities. At least one credit of Engineering & Technology Education program consisting of three credits must be completed before enrolling in WBE.



# Health Science

The health care industry is one of the fastest growing occupational areas in North Central Florida. The Health Academy at Bell High School is an exciting program designed to prepare students for employment and post-secondary education in health related careers. The program includes integrated classroom instruction, laboratory practice, clinicals, and shadowing experiences in selected health care settings. Students have the opportunity to earn college credits for courses taken in the Health Academy through the Career Pathways partnership with Florida Gateway College and Santa Fe College. All interested students are encouraged to apply for entrance to the Health Academy.

## Program of Study

Certified Nursing  
Assistant (CNA)  
Allied Health Assisting  
Electrocardiograph  
Technician (EKG)

## Industry Certifications

Certified Nursing Assistant  
(CNA)  
Certified EKG Tech  
Certified Patient Care Tech  
(CPTCT)  
Certified Medical Administration  
Assistant (CMAA)

## Career Opportunities

Registered Nurse  
CNA





# Courses-Health Science

## **8417100 Health Science Anatomy and Physiology**

This course is part of the secondary Health Core consisting of an overview of the human body, both structurally and functionally with emphasis on the pathophysiology and transmission of disease. Medical terminology is an integral part of the course.

***\*Required for all pathways  
\*Honors Credit\****

## **8417110 Health Science Foundations**

This course is part of the Secondary Health Core designed to provide the student with an in-depth knowledge of the health care system and associated occupations. Emphasis is placed on communication and interpersonal skills, use of technology, ethics, and the development of critical thinking and problem-solving skills.

Students may shadow professionals throughout the course.

***\*Required for all pathways  
\*Honors Credit\****

## **8417131 Allied Health Assisting 3**

In this course students will perform skills representative of one to three areas of allied health care in the laboratory and clinical settings. Major areas of allied health are defined as physical therapy, emergency, radiation, laboratory and respiratory medicine, and occupational therapy. Other areas of health, medicine, dentistry, or veterinary may be included with instructor provided competencies.

## **8417211 Nursing Assistant 3**

This is a course designed to prepare the student to provide/assist with all aspects of activities of daily living for the adult patient in both hospital and nursing home settings. The course, which is taught by a registered nurse, includes didactic instruction, skills practice in the laboratory and clinical experience. Emphasis is also placed on the development of communication, interpersonal, problem solving and critical thinking skills.

***\*Honors Credit\****

# Courses-Health Science

## **8427130 Electrocardiograph Technician 3**

Content includes, but is not limited to, a foundation in the cardiovascular system, safety measures for the individual, co-workers, and patients, as well as training in the appropriate theories and instruments used by an Electrocardiograph Technician. Clinical learning experiences are an integral part of this program. The course is designed as part of an overall program to prepare students for employment as EKG Technicians.

**\*Honors Credit\***

## **8400320 Medical Skills and Services**

The purpose of this course is to provide students with practical generic skills in health science education. The student will be able to describe services by provided by health occupations career clusters.

Demonstrate basic health skills, including first aid and CPR. Understand responsible consumer decision-making regarding health screening and health care management. Be able to discuss legal aspects for the health consumer. The student will understand the use of computers and technology in the health care field.

## **8400410 Health Science Education Cooperative OJT**

The purpose of this course is to provide a Health Science on-the-job training component when the cooperative method of instruction is appropriate. Whenever the cooperative method is offered, the following is required for each student: A training agreement; a training plan signed by the student, teacher and employer, including instructional objectives; a list of on-the-job and in-school learning experiences; a workstation which reflects equipment, skills and tasks which are relevant to the occupation which the student has chosen as a career goal; and a site supervisor with a working knowledge of the selected occupation. The workstation may be in an industry setting or in a virtual learning environment. The student must be compensated for work performed.



# Criminal Justice

Are you interested in a career in the legal field, forensic science, or law enforcement? Then the Criminal Justice Operations Program at Bell High School is for you! Criminal Justice Operations is a program designed to prepare students for employment and post-secondary education in the field of criminal justice. The curriculum will introduce students to the criminal justice system, police ethics, constitutional law, police procedures, defensive tactics and physical proficiency skills, interpersonal communication skills, investigation procedures, court systems and trial procedures, the correctional system, forensic science, probation/parole, and crime prevention. Additionally, students can earn college credits for courses taken in the Criminal Justice Operations Program through the Career Pathways partnership with Florida Gateway College.

*This program is open to all incoming ninth graders in Bell and Trenton. Students must complete an application to be considered for acceptance into the Business Program.*

## Program of Study

Criminal Justice  
Operations

Public Safety  
Telecommunications

## Industry Certifications

NOCTI Criminal Justice  
911PST FLDOH

## Career Opportunities

Public Service Officer  
Forensic Investigator  
Federal/Local Law Enforcement  
Attorney  
Paralegal  
Legal Assistant  
Court Reporter  
Corrections Officer  
Probation & Parole Officer



# Courses-Criminal Justice

## **8918010 Criminal Justice Operations 1**

This course is designed to introduce students to the fields of law enforcement, the court system, and the correctional system. The content includes career opportunities in these fields, the court system, the correctional system, interpersonal and communication skills, and employability skills.

## **8918020 Criminal Justice Operations 2**

This course is designed to develop competencies in patrol, traffic control, defensive tactics and physical proficiency skills, and first aid and cardiopulmonary resuscitation skills.

## **8918030 Criminal Justice Operations 3**

This course is designed to develop competencies in crime and accident investigation procedures, forensic science tasks, crime prevention, and property control procedures.

**\*Honors Credit\***

## **9101100 Dispatcher: Fire, Police, Ambulance**

The purpose of this course is to prepare students for employment as a dispatcher: police, fire, ambulance.

The content includes, but is not limited to, ethics and the role of the telecommunicator; standard telecommunication operating procedures; relationship to field personnel; understanding of command levels; typical layouts of message centers; use of performance aids; overview of emergency agencies; functions and terminology; use of correct words and grammar; communications equipment, functions and terminology; types of telecommunication equipment; malfunctions and maintenance agreements; proper and correct telephone and dispatching procedures and techniques; cooperation and reciprocal agreements with other agencies; federal, state, and local communication rules; emergency situations and operating procedures; emergency medical dispatch procedures; employability skills; leadership and human relations skills; and health.



# Courses-Criminal Justice

## **8900410 Law, Public Safety, & Security Cooperative Education - OJT**

The purpose of this course is to provide the on-the-job training component when the cooperative method of instruction is appropriate. Whenever the cooperative method is offered, the following is required for each student: a training agreement; a training plan signed by the student, teacher, and employer, including instructional objectives; a list of on-the-job and in-school learning experiences; a workstation that reflects equipment, skills, and tasks which are relevant to the occupation which the student has chosen as a career goal; and a site supervisor with a working knowledge of the selected occupation. The workstation may be in an industry setting or in a virtual learning environment. The student must be compensated for work performed. The teacher/coordinator must meet with the site supervisor a minimum of once during each grading period for the purpose of evaluating the student's progress in attaining the competencies listed in the training plan.



# JROTC

The mission of the U.S. Army Junior ROTC Program is to "Motivate Young People to be Better Americans." The program prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The program is a stimulus for promoting continuing education and it provides instruction and rewarding opportunities, which will benefit the student, community, and the nation.

The program of instruction focuses on the development of better citizens by building skills in leadership, citizenship, life success, geography, and wellness, in a structured interactive environment. The JROTC program is a cooperative effort on the part of the Army and the Gilchrist County School District to provide students with opportunities for total development. Satisfactory completion of the program can lead to advanced rank in the Armed Forces.

## Program of Study

Leadership Education 1  
Leadership Education 2  
Leadership Education 3  
Leadership Education 4

## Extracurricular Activities

Color Guard  
Drill Team  
Academic Team  
Honor Guard  
Adventure Training  
Marksmanship Team

*This program is open to all incoming ninth graders in Bell and Trenton, with school-to-school transportation provided by the district. Students must submit an application in order to be considered for acceptance into the JROTC Program*



# Courses-JROTC

## **1801300 Leadership Education and Training 1**

The purpose of this course is to enable students to develop knowledge of the history, customs, traditions, and purpose of the Army JROTC. The course includes development of basic leadership skills including leadership principles, values, and attributes. Students should master appreciation for diversity. Active learning strategies are integrated throughout the course with an emphasis on writing skills and oral communication techniques. Financial planning as well as physical fitness, diet, nutrition, healthy lifestyles, awareness of substance abuse and prevention, and basic first aid measures is included. An overview of the globe and geography and basic map reading skills are incorporated.

A study of the United States Constitution, Bill of Rights, responsibilities of United States citizens, and the federal justice system is also provided.

## **1801310 Leadership Education and Training 2**

The purpose of this course is to enable students to expand on skills taught in Leadership Education and Training 1. This course introduces the concepts of equal opportunity, fair treatment of minorities, and prevention of sexual harassment. It provides instruction of leadership skills, leadership theories, as well as the basic principles of management. It provides self-assessments that help students determine their skill sets and opportunities to teach using accepted principles and methods of instruction. It emphasizes community projects to assist in drug prevention efforts. It also includes dietary guidelines, fitness, and map-reading and orienteering skills. It discusses the significant events that helped shape and develop the Constitution and government and teaches the role of political parties in the election process.

# Courses-JROTC

## **1801320 Leadership Education and Training 3**

The purpose of this course is to enable students to expand on the skills taught in Leadership Education and Training 2. This course allows cadets to investigate the interrelationships of the services while they continue to build their leadership development and decision-making skills. It includes negotiation skills and management principles. It emphasizes staff procedures and opportunities to handle various leadership situations as well as prevent violence and manage anger. The research, identification, planning, and execution of service learning activities are included. This course gives cadets the opportunity to apply basic concepts of strategies for career exploration and planning. It teaches how to create a career portfolio and plan for college or work. Financial management principles are studied. Skills for orienteering and/or land navigation are developed. The course also includes studies in the federal judicial system and how historical events have shaped social systems.

## **1801330 Leadership Education and Training 4**

The purpose of this course is to enable students to expand on the skills taught in Leadership Education and Training 3. This course focuses on creating a positive leadership situation, negotiation, decision making, problem solving, team development, project management, and mentoring. Students will demonstrate leadership potential in an assigned command or staff position within the cadet battalion organizational structure. The course teaches cadets how to use emotional intelligence in leadership situations as well as how to maintain a positive attitude. It provides instruction on etiquette, daily planning, financial planning, and careers. It includes requirements for the practical application of leadership duties. It emphasizes physical fitness through healthy individual and group competition. The interactions between groups of people and how they affect the area's cultural, economic, and political characteristics are discussed. Concepts of democracy and freedom and their influence On the United States are discussed.



# Agricultural

In today's world, technological and economic factors are changing the way Americans and people around the world view the importance of agriculture. The purpose of the Agriscience program is to provide students with the opportunity to experience and learn about the issues that affect agriculture today. This program helps increase the students' awareness of agricultural issues in today's society. The Agriscience program is an exciting curriculum designed to prepare students for active employment and post-secondary training in the fields of Agriscience and Agribusiness. Additionally, students can earn college credits for courses taken in the Agriscience Program through the Career Pathways partnership with the College of Central Florida. Agritechnology is a STEM Program!

## Program of Study

### (BHS & THS)

Agriscience Foundations 1  
Agritechnology 1  
Agritechnology 2

### (BHS ONLY)

Agriscience Foundations 1  
Technical Agriculture  
Operations 2  
Technical Agriculture  
Operations 3

### (THS ONLY)

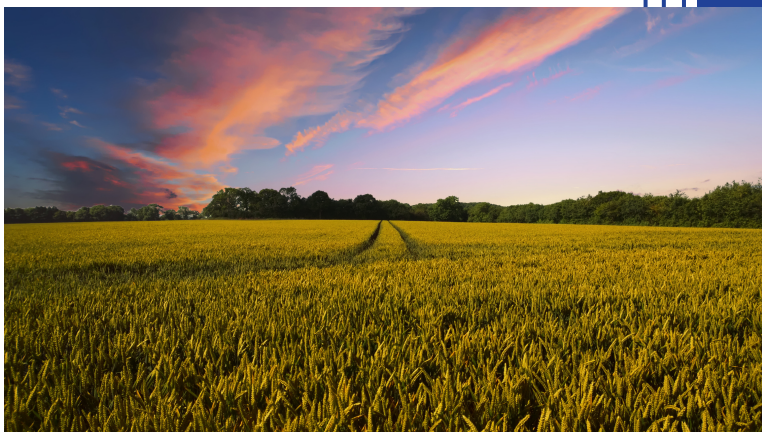
Agriscience Foundations 1  
Animal Science & Services 2  
Animal Science & Services 3

## Industry Certifications

Agricultural Associate  
Agritechnology Specialist  
Ag Mechanics Specialist  
Animal Science Specialist

## Career Opportunities

Agriscience Production/Distribution  
Agriscience Mechanics  
Agriscience Sales & Service  
Renewable Natural Resources  
Production Agriscience  
Forestry/Horticulture  
Veterinary Science



# Courses-Agricultural

## **8106810 Agriscience Foundations 1**

This course is designed to develop competencies in the areas of agricultural history and the global impact of agriculture; career opportunities; scientific and research concepts; biological and physical science principles; environmental principles; Agriscience safety; principles of leadership; and agribusiness, employability, and human relations skills in Agriscience. Laboratory-based activities are an integral part of this course. These include the safe use and application of appropriate technology, scientific testing and observation equipment.

**\*Required for all pathways.**

**\*Honors Credit\***

## **8106820 Agritechnology 1**

This course is designed to develop competencies in the areas of Agriscience industry careers; prevention and treatment of livestock diseases; livestock anatomy; wholesale cuts of meat; animal reproduction and identification; animal safety; animal-health certification; plant growth; plant fertilization; safe use of pesticides; maintenance of tools and equipment; record keeping; and employability skills.

## **8106830 Agritechnology 2**

This course is designed to develop competencies in the areas of job and training requirements; professional organizations; crop identification; planting crops; fertilizer calculations and application; irrigation; pest control; harvesting, packing, and grading crops, safe equipment operation; and finance.

## **8106210 Animal Science and Services 2**

This course is designed to develop competencies in the areas of safety; animal behavior; animal welfare; animal control; and employability skills.

## **8106220 Animal Science and Services 3**

This course is designed to develop competencies in the areas of animal digestive systems; animal breeding; preventive medicine and disease control; control of parasites; animal marketing; and analyzing records.

# Courses-Agricultural

## **8005110 Technical Agricultural Operations 2**

This course is designed to develop competencies in the areas of safety; selection and use of tools; planning and building projects and construction of agricultural structures, including the use of electrical circuits, plumbing, concrete and masonry; and employability skills.

## **8005120 Technical Agricultural Operations 3**

This course is designed to develop competencies in the areas of welding; small gasoline engine service and repair; preventative maintenance procedures; irrigation system repair; refrigeration; new and emerging technologies; financial management skills; and employability skills.

## **8005130 Technical Agricultural Operations 4**

This course is designed to develop competencies in the areas of welding; small gasoline engine service and repair; preventative maintenance procedures; irrigation system repair; refrigeration; new and emerging technologies; financial management skills; and employability skills.

## **8100410 Agriculture, Food, and Natural Resources Cooperative OJT**

The purpose of this course is to provide an Agriculture, Food, & Natural Resources on-the-job training component when the cooperative method of instruction is appropriate. Whenever the cooperative method is offered, the following is required for each student: A training agreement; a training plan signed by the student, teacher and employer, including instructional objectives; a list of on-the-job and in-school learning experiences; a workstation which reflects equipment, skills and tasks which are relevant to the occupation which the student has chosen as a career goal; and a site supervisor with a working knowledge of the selected occupation. The workstation may be in an industry setting or in a virtual learning environment. The student must be compensated for work performed.



# Business

The Business Management Programs at both Bell High and Trenton Middle provide students with intense training in the field of business management, and prepare students for employment in a wide variety of areas. The programs challenge students to demonstrate critical thinking skills, leadership skills and teamwork while they have an opportunity to develop their entrepreneurial skills. Additionally, Gilchrist County Schools have agreements with both Florida Gateway College and Santa Fe College which allow students the opportunity to earn credit for business courses at both the high school and college levels. Students who complete a four-year program, graduate ready to enter the workforce and/or to continue their education at a post-secondary institution.

*This program is open to all incoming ninth graders in Bell and Trenton. Students must complete an application to be considered for acceptance into the Business Program.*

## Program of Study

### (BHS & THS)

Digital Information  
Technology  
Business and  
Entrepreneurial Principles  
Account Applications 1  
Business Analysis  
Business Cooperative  
Education

## Industry Certifications

E-Commerce Specialist  
QuickBooks Certified User  
Adobe Photoshop Certified User  
Adobe Illustrator Certified User

## Career Opportunities

General and Operations Manager  
Computer User Support Specialists  
Management Analysis





# **Courses-Business**

## **8207310 Digital Information Technology**

This core course is designed to provide a basic overview of current business and information systems and trends, and to introduce students to fundamental skills required for today's business and academic environments. Emphasis is placed on developing fundamental computer skills. The intention of this course is to prepare students to be successful both personally and professionally in an information-based society. Digital Information Technology includes the exploration and use of: databases, the internet, spreadsheets, presentation applications, management of personal information and email, word processing and document manipulation, HTML, web page design, and the integration of these programs using software that meets industry standards.

## **8215120 Business and Entrepreneurial Principles**

This course is designed to provide an introduction to business organization, management, and entrepreneurial principles. Topics include communication skills, various forms of business ownership and organizational structures, supervisory/management skills, leadership skills, human resources management activities, business ethics, and cultural diversity. Emphasis is placed on job readiness and career development. The use of computers is an integral part of this program.

**\*Honors Credit\***

## **8203310 Accounting Applications 1**

This course emphasizes double-entry accounting; methods and principles of recording business transactions; the preparation of various documents used in recording income, expenses, acquisition of assets, incurrence of liabilities, and changes in equity; and the preparation of financial statements. The use of computers and appropriate software is required.

**\*Honors Credit\***

# Courses-Business

## 8301120 Business Analysis

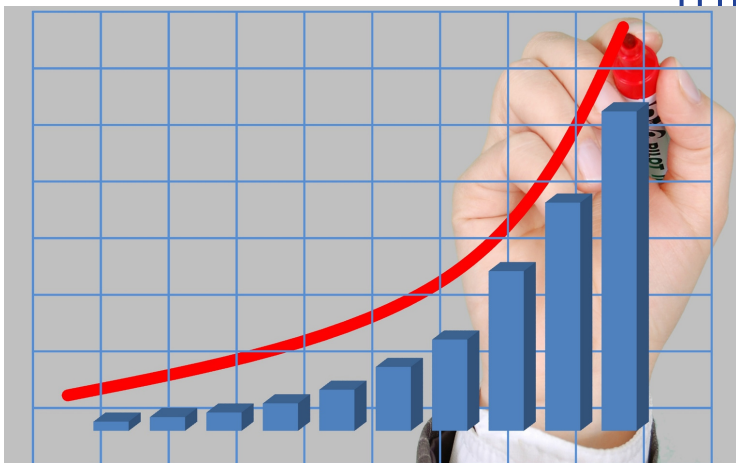
This course is designed to provide a higher level of understanding of business systems, accounting concepts, working with financial information, data analysis skills, managing business information with appropriate software, requirements analysis of information systems, data modeling, and database management.

**\*Honors Credit\***

## 8200410 Business Cooperative Education – OJT

Each student job placement must be related to the job preparatory program in which the student is enrolled or has completed.

The purpose of this course is to provide the on-the-job training component when the cooperative method of instruction is appropriate. Whenever the cooperative method is offered, the following is required for each student: a training agreement; a training plan signed by the student, teacher and employer, including instructional objectives; a list of on-the-job and in-school learning experiences; a workstation which reflects equipment, skills and tasks which are relevant to the occupation which the student has chosen as a career goal; and a site supervisor with a working knowledge of the selected occupation. The workstation may be in an industry setting or in a virtual learning environment. The student must be compensated for work performed. The teacher/coordinator must meet with the site supervisor a minimum of once during each grading period for the purpose of evaluating the student's progress in attaining the competencies listed in the training plan.



# Notice of Non-Discrimination

The Gilchrist County School District does not discriminate on the basis of race, color, national origin, gender, age, disability, marital status or genetic information in its educational programs, services or activities, or in its hiring or employment practices. The district also provides equal access to its facilities to the Boy Scouts and other patriotic youth groups, as required by the Boys Scout of America Equal Access Act.

Questions, complaints, or requests for additional information regarding discrimination or harassment may be sent to:

Name and/or Title: Darby Allen, Equity Officer

Office Address: 310 NW 11th Avenue / Trenton, Florida 32693

Phone Number (Voice/TDD): (352) 463-3200

E-mail: [allend@mygcsd.org](mailto:allend@mygcsd.org)

In addition, the Gilchrist County School District offers a variety of career and technical education programs described here, including career academies wherein students may earn industry certification.

The district prohibits discrimination in the terms and conditions of employment, and in access to educational programs and activities, and prohibits harassment of any individual or group on the basis of race, color, national origin, religion, sex, age, disability, marital status, sexual orientation or genetic information (and other protected classes included in the district's nondiscrimination policies).

Lack of English language skills will not be a barrier to admission and participation. The district may assess each student's ability to benefit from specific programs through placement tests and counseling, and, if necessary, will provide services or referrals to better prepare students for successful participation.



# **Gilchrist County School District**