GCPS Grades 9-12 Curriculum

Career & Technical Education

Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification; or earn an occupational competency credential from a recognized industry, trade, or professional organization; or acquire a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student-selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement. *See pages 27-28 for a complete listing of certification exams, industry certifications and lisences*.

Virginia continues to be a national leader in aligning career and technical education programs with business and industry expectations. Students who earn one or more nationally recognized credentials have a distinct advantage in entering their chosen field of employment and/or in continuing their career preparation through post-secondary education.

Business and Information Technology Courses

Business and Information Technology courses are designed to offer students the attainment of competencies for work, further education and training, and personal use goals. All students are provided opportunities to complement their academic preparation through the Business and Information Technology program. The curriculum for this department not only meets current technological advances in computer applications, systems, and communications, but also presents opportunities to learn about finance, banking and credit, financial planning, accounting, business law, management and Dressing for Success.

The Future Business Leaders of America (FBLA) is the Career and Technical Education student organization designed to develop personal employability and leadership skills for all individuals enrolled in business and information technology courses. Through participation in the organization, the business students learn to engage in individual and group business enterprises, to hold office and direct the affairs of a group, to work with representatives of other student organizations, and to compete honorably with their colleagues.

GHS Course No.	Course Title	Credit	9	10	11	12	Recommendation
611500	Principles of Business and Marketing	1	x	x			None
612020	Economics and Personal Finance	1		x	x	x	Algebra I
632000	Accounting I	1		x	x	x	Keyboarding Skills
661200	Computer Information Systems	1	x	x	x	x	Keyboarding Skills
661300	Computer Information Systems (Advanced)	1		x	x	x	Computer Information Systems
817500	Sports, Recreation & Entertainment Marketing	1		x	x	x	None
909300	Entrepreneurship Education	1	x	x	x	x	None
909400	Entrepreneurship Education (Advanced)	1		x	x	x	Entrepreneurship Education

ECONOMICS AND PERSONAL FINANCE
    Number: **612020**
    Recommendation: **Algebra I**
    Credit: **1**
    Grade: **10-12**

Economics and Personal Finance is designed for students to explore basic economic concepts and personal financial planning. Upon completion of this course, students will be able to demonstrate knowledge of the price system, the nation's financial system, how monetary and fiscal policy influences employment, the role of government in a market economy, the global economy, and the nation's economic goals. Students will also learn knowledge of consumer skills, planning for living and leisure expenses, banking transactions, credit and loan functions, role of insurance in risk management, income earning, taxes, investment and savings planning, and the financial implications of an inheritance. Students will prepare for Wise Certification testing at the completion of this course. *This course is a graduation requirement for the Class of 2015 and beyond.*

ACCOUNTING I

Number:	**632000**
Recommendation:	**Keyboarding Skills**
Credit:	**1**
Grade:	**10-12**

This course is designed for students to study the basic principles, concepts, and practices of the accounting cycle. Students learn fundamental accounting procedures.

COMPUTER INFORMATION SYSTEMS

Number:	**661200**
Recommendation:	**Keyboarding Skills**
Credit:	**1**
Grade:	**9-12**

Computer Information Systems is designed to introduce students to applications using word processing, spreadsheet, personal management (Outlook), multimedia presentation (PowerPoint), and database software. Students will apply problem-solving skills to real-life situations. Students have the opportunity to earn a Microsoft Office Specialist Certification.

COMPUTER INFORMATION SYSTEMS (ADVANCED)

Number:	**661300**
Recommendation:	**Computer Information Systems**
Credit:	**1**
Grade:	**10-12**

Students apply problem-solving skills to real-life situations through advanced integrated software applications, including printed, electronic, and Web publications. Students work individually and in groups to explore advanced computer maintenance activities, Web site development, programming, networking, emerging technology, and employability skills.

PRINCIPLES OF BUSINESS AND MARKETING

Number:	**611500**
Recommendation:	**None**
Credit:	**1**
Grade:	**9-10**

Students discover the roles of business and marketing in the free enterprise system and the global economy. Basic financial concepts of banking, insurance, credit, inheritance, taxation, and investments are investigated to provide a strong background as students prepare to make sound decisions as consumers, wage earners, and citizens. The real-world impact of technology, effective communication, and interpersonal skills is evident throughout the course. This course also supports career development skills and explores career options.

SPORTS, RECREATION & ENTERTAINMENT MARKETING

Number:	**817500**
Recommendation:	**None**
Credit:	**1**
Grade:	**10-12**

This introductory course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to sports, entertainment, and recreation industries. Students will investigate the components of branding, sponsorships, and endorsements, as well as promotion plans needed for sports, entertainment and recreation events. The course also supports career development skills and explores career options.

ENTREPRENEURSHIP EDUCATION

Number:	**909300**
Recommendation:	**None**
Credit:	**1**
Grade:	**9-12**

Students will be introduced to the exciting world of planning, for, creating, owning, and launching their own business enterprise. Students will learn concepts and techniques for planning and operating an innovative business and realizing an entrepreneurial lifestyle.

ENTREPRENEURSHIP EDUCATION (ADVANCED)

Number:	**909400**
Recommendation:	**Entrepreneurship Education**
Credit:	**1**
Grade:	**10-12**

This course is designed for students who wish to concentrate on advanced strategies for entrepreneurship, building upon concepts introduced in Entrepreneurship (9093). The focus of the course is on development of a business plan and small business management. Students will establish, market, and maintain a business model.

Early College Scholars

The Governor's Early College Scholars program recognizes students who pursue college-level coursework during high school and allows eligible high school students to earn transferable* college credit while completing the requirements for an Advanced Studies Diploma. The result may be a more productive high school academic experience with potential to reduce college tuition expenses.

To qualify for the Governor's Early College Scholars program, a student must:
- ▪ Have a "B" average or higher; *and*
- ▪ Be pursuing an Advanced Studies Diploma; *and*
- ▪ Demonstrate ability to complete college-level course work (i.e. Advanced Placement, International Baccalaureate, Cambridge, or dual enrollment) that will earn at least 15 transferable* college credits, *and*
- ▪ Complete a signed Early College Scholars Agreement by March of the senior year.

A copy of the Agreement and other details can be viewed on the Virginia Department of Education website: www.doe.virginia.gov/instruction/graduation/early_college_scholars/

Students who fulfill the terms of the signed agreement are recognized as Early College Scholars and receive a certificate of recognition from the Governor.

* *Transferble* college credits may be earned for specific courses when other qualifying criteria are met (e.g. minimum qualifying scores on Advanced Placement exams, or dual-enrolled courses recognized by specific transfer degrees and Guaranteed Admissions Agreements of the Virginia Community College System). For additional information, contact your child's school counselor.

Honors Courses

- Academic honors level courses are offered to students at all grade levels who wish to have a more rigorous and challenging course of study.
- Honors courses are weighted on the grading scale, and are marked with an asterisk (*) on the transcript.

Dual Enrollment Courses

- GHS students may be eligible to earn college credit from Rappahannock Community College (RCC) for completion of particular courses (known as dual-enrollment) at Gloucester High School.
- Dual enrollment courses meet high school and college course requirements and may satisfy certain college course requirements at colleges or universities other than RCC; however, institutions of higher education have unique and specific policies regarding acceptance of college-level transfer credit. Consult with your school counselor or RCC's Dean of Dual Enrollment for clarification.
- ~~Most dual enrollment courses are offered on the GHS campus, and are free to GHS students~~.
- Dual enrollment credits awarded by RCC require a $5 per credit fee to be paid by the student. Students in dual enrollment courses who do not pay the dual enrollment fee by the established RCC withdrawl deadline will not earn RCC credits and may be withdrawn from the course for nonpayment of tuition. Some dual enrolled courses (i.e. English 12 Dual) will have credit fees billed in both fall and spring. Other dual enrolled courses (i.e. Medical Terminology) are year-long courses and will be billed only one time.
- Students wishing to take dual enrollment courses must demonstrate they are prepared for college level work by earning a qualifying score on the Virginia Placement Tests. These English and Mathematics placement tests are administered in the spring semester at GHS. Students who do not qualify on these placement tests will not be allowed to enroll in a dual enrollment course.
- Students must have a dual enrollment application on file with RCC.
- Students must also complete an online RCC application.
- Academic dual enrollment courses are weighted on the grading scale.
- Students who earn grades in dual enrollment courses will have a permanent transcript at RCC in the Virginia Community College System. This transcript will be sent to colleges and universities if requested by the student.
- Poor grades on a college level transcript can affect financial aid eligibility; please take dual enrollment courses seriously.
- Students must earn a "C" or better to receive college credit.
- Students who do not receive a "C" or better at mid-year will be removed from the dual enrollment course.
- Gloucester High School students who are accepted in a dual enrollment course are considered Rappahannock Community College students and will have access to all resources in the RCC Learning Resource Center with an RCC ID. The Learning Resource Center features books, printing & scanning services, library computers, reserve research items, quiet study centers, and research tools. Students have access to the Success Labs and the Testing Center.
- Students can also access resources online using the "MyRCC" button located on the upper left hand side of the RCC homepage (www.rappahannock.edu). Enter Blackboard, and then click on the "Research" tab to gain access to the library website.

To Qualify for a Rappahannock Community College Dual Enrollment Course:	
Step 1 Permission	• Obtain permission from your teachers and counselor
Step 2 Application	• Pick up a copy of the Dual Enrollment Application from the Counseling Office • Parent signature is required • Return DE Application to Counseling Office
Step 3 Apply Online at RCC	• Complete the online application at https://apply.vccs.edu/app/app.htm • Obtain your student ID Number and password • Return DE Application to Counseling Office
Step 4 Placement Test	• Take the college placement test in the GHS Computer Lab *or* • Submit SAT/ACT scores • You will need your RCC ID to take this test
Step 5 Register	• Complete your scheduling form with appropriate signatures and turn into your counselor
Step 6 Tuition Payment	• $5 per credit fee must be paid by the established RCC withdrawl deadline • Consult with the GHS school counseling office for annual deadline calendar

Technology Education

The technology education program provides experiences that lead to the development of technologically literate people. Consistent with their abilities, interests, and educational needs, students completing a technology education program will achieve the following goals:

- Comprehend the dynamics of technology, including its development, impact, and potential.
- Employ the technological processes of problem-solving, creating and designing.
- Analyze the behavior of technological systems and subsystems, including the tools, materials, processes, energy, information, and people involved in systems.
- Apply scientific principles, engineering concepts, and technological systems in the processes of technology.
- Discover and develop personal interests and abilities related to a wide variety of technology-oriented careers.

Project Lead The Way (PLTW) prepares students to be the most innovative and productive leaders in Science, Technology, Engineering, and Mathematics (STEM) and to make meaningful, pioneering contributions to our world. PLTW partners with Page and Peasley Middle Schools and Gloucester High School to provide a rigorous, relevant STEM education. Through an engaging, hands-on curriculum, PLTW encourages the development of problem-solving skills, critical thinking, creative and innovative reasoning, and a love of learning. The PLTW middle and high school STEM education programs give students a brighter future by providing them with a foundation and proven path to college and career success in STEM-related fields. STEM education is at the heart of today's high-tech, high-skill global economy. For America to remain economically competitive, our next generation of leaders must develop the critical-reasoning and problem-solving skills that will help make them the most productive in the world. PLTW sparks the ingenuity, creativity, and innovation within all of our students.

GHS Course No.	Course Title	Credit	9	10	11	12	Recommendation
844000	Electronics I Dual*	1	x	x	x	x	Algebra I and RCC Placement Test
841200	Electronics II Dual*	1		x	x	x	Electronics I
844200	Computer Integrated Manufacturing	1		x	x	x	Principles of Engineering I, Elect I or Eng Draw
843100	Construction Technology	1	x	x			None
843900	Intro to Engineering Design Dual*	1	x	x	x	x	RCC Placement Test
843650	Engineering Drawing Dual*	1		x	x	x	Intro to Engineering Design
843700	Architectural Drawing Dual*	1		x	x	x	Intro to Engineering Design
844100	Principles of Engineering	1	x	x	x	x	Algebra I
844300	Principles of Engineering II Dual*	1		x	x	x	Principles of Engineering I and RCC Placement Test
842100	Introduction to Robotics	1		x	x	x	Principles of Engineering I or Engineering Drawing
845800	Modeling & Simulation Technology	1		x	x	x	None
846000	Graphic Communications	1		x	x	x	Modeling & SimulationTechnology

*Students interested in honors, dual enrollment or Advanced Placement classes should consult their current teacher prior to requesting the course.

ELECTRONICS TECHNOLOGY I DUAL ENROLLMENT*
Number: 844000
Recommendation: **Algebra I and RCC Placement Test**
Credit: **1**
Grade: **9-12**

The purpose of this course is to provide students experience with electronics theory and its application in the electronics laboratory. Electronics circuits and devices (including robotics) will be fabricated in the laboratory. The course is designed to prepare students for further training at the college level, technical schools, or for a better starting position in the technical workplace. Mathematical treatments, calculators, and computers are used.

ELECTRONICS TECHNOLOGY II DUAL ENROLLMENT*
Number: 841200
Recommendation: **Electronics I & Geometry**
Credit: **1**
Grade: **10-12**

In this year-long course students will work with electronic devices, instruments, and circuits, building projects that apply theories and laws with electronic components such as resistors, capacitors and transistors. They will also study integrated circuits used in computers, amplifiers, television and other electronic equipment.

COMPUTER INTEGRATED MANUFACTURING
Number:	**844200**
Recommendation:	**Principles of Engineering, Electronics I or Engineering Drawing**
Credit:	**1**
Grade:	**10-12**

This course applies principles of robotics and automation and CAD design. The course builds on computer solid modeling skills developed in Engineering Drawing. Students use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing, and design analysis are included.

CONSTRUCTION TECHNOLOGY
Number:	**843100**
Recommendation:	**None**
Credit:	**1**
Grade:	**9-10**

Students design, build, and test scale model structures and work with projects that help them to understand the jobs of architects, carpenters, electricians, plumbers, surveyors, contractors, masons, design engineers, and a variety of other construction careers.

INTRODUCTION TO ENGINEERING DESIGN DUAL ENROLLMENT *
Number:	**843900**
Recommendation:	**RCC Placement Test**
Credit:	**1**
Grade:	**9-12**

This course is designed for students interested in Architecture, Engineering, Robotics, Computer Integrated Manufacturing, or other STEM coursework. The major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. Students use 3D solid modeling design software to help them design solutions to solve proposed problems and learn how to document their work and communicate solutions to peers and members of the professional community. *Note: This course replaces Basic Technical Drawing.*

ENGINEERING DRAWING & DESIGN DUAL ENROLLMENT*
Number:	**843650**
Recommendation:	**Intro to Engineering Design**
Credit:	**1**
Grade:	**10-12**

Engineering Drawing/Design is an advanced drawing and design course which enables students to extend their knowledge of drafting concepts and the application of AutoCAD software. In addition to learning to develop working drawings and/or assembly drawings, students are challenged with design projects throughout the year.

ARCHITECTURAL DRAWING & DESIGN DUAL ENROLLMENT*
Number:	**843700**
Recommendation:	**Intro to Engineering Design**
Credit:	**1**
Grade:	**10-12**

Architectural Drawing/Design is an advanced drawing and design course which provides students the opportunity to learn about the principles of architecture and increase understanding of working drawings and construction techniques learned in the prerequisite course. Experiences include designing, rendering, and model making, including attention to structural details and community planning. Students use computer-aided drawing and design (CADD) equipment and established standards or codes. This course provides information helpful for the home owner/home builder and is especially beneficial to the future architect or designer.

PRINCIPLES OF ENGINEERING
Number:	**844100**
Recommendation:	**Algebra I**
Credit:	**1**
Grade:	**9-12**

Principles of Engineering introduce students to engineering concepts and theories and provides hands-on laboratory exercises that demonstrate engineering practices used in the workforce. Students will study the engineering design process, engineering systems, statics and strength of materials, materials used in testing, engineering for reliability, and dynamics/kinematics. This course is integrated with college preparatory math and science concepts and introduces the student to the scope, rigor and discipline of engineering careers in the current and emerging workforce.

PRINCIPLES OF ENGINEERING II DUAL ENROLLMENT*
Number:	**844300**
Recommendation:	**Principles of Engineering**
Credit:	**1**
Grade:	**10-12**

The purpose of this course is to provide extended study experiences in the application of the principals of physics and mathematics to explore mechanical, electronic, fluid, and thermal systems. Laser technology, transducers, wave motion, radiation, optical systems, momentum, and some robotics are covered. The course is designed to prepare students for further training at the college level, technical school, or for a better starting position in the technical workplace. Students will work with calculators and computers in the preparation of their lab reports.

INTRODUCTION TO ROBOTICS
Number:	**842100**
Recommendation:	**Principles of Engineering or Intro to Engineering Design**
Credit:	**1**
Grade:	**10-12**

Students will learn how to design and build a robot using the VEX robotics system. These robots will be programmed for remote operation and autonomous operation using the RobotC language. Students will have hands on experience with engineering design, mechanical engineering, electrical engineering and programming with C++/RobotC languages.

MODELING & SIMULATION TECHNOLOGY
Number:	**845800**
Recommendation:	**None**
Credit:	**1**
Grade:	**10-12**

Students will explore the use of modeling, simulation, and game development software to solve real-world problems in science, technology, engineering, and mathematics (STEM). The activities will include evaluating and testing engineering designs, modeling geospatial data, observing and analyzing physics simulations, programming games for educational purposes, and creating visualization systems with 3D models.

GRAPHIC COMMUNICATIONS SYSTEMS
Number:	**846000**
Recommendation:	**Modeling & Simulation Technology**
Credit:	**1**
Grade:	**10-12**

This course provides experiences related to a wide range of tools and materials used to reproduce information and images. Several mediums are used, including paper, metal, plastic, and fabric. Students develop competencies in design and layout, composition and assembly, film conversion, image applications, message transfer, and print production.

Culinary Arts

The Culinary Arts programs facilitate student progress toward a set of unifying goals in the areas of academic achievement, cultural and environmental issues, health and safety, leadership and workplace ethics, and application of technology

GHS Course No.	Course Title	Credit	9	10	11	12	Recommendation
824900	Introduction to Culinary Arts	1	x	x			None
827500	Culinary Arts I Dual Enrollment*	2		x	x		Intro to Culinary Arts strongly recommended
827600	Culinary Arts II Dual Enrollment*	2			x	x	Culinary Arts I
827700	Culinary Arts III Dual Enrollment*	1				x	Culinary Arts II and RCC Placement Test

*Students interested in honors, dual enrollment or Advanced Placement classes should consult their current teacher prior to requesting the course.

INTRO TO CULINARY ARTS
Number:	**824900**
Recommendation:	**None**
Credit:	**1**
Grade:	**9-10**

Intro to Culinary Arts is an introduction course for the culinary arts programs. Students will receive an overview of the topics covered in the pre-management course covering food preparation, sanitation, presentation, and safety.

CULINARY ARTS I DUAL ENROLLMENT*
Number:	**827500**
Recommendation:	**Intro to Culinary Arts strongly recommended**
Credit:	**2**
Grade:	**10-11**

This is the first year of a two-year nationally certified pre-management course offered with The National Restaurant Association's Educational Foundation. This course has been developed to be recognized by industry and post-secondary schools. Students are required to maintain a grade level of 75% in food handling and safety to remain in this course. Professionalism skills are critical to succeed, including: Arriving on time, calling in advance of absence, proper dress, and professional attitude. Students in this class will learn the theory of the industry as well as basic culinary skills. All kitchen work is performed within the safety and sanitation requirements of VA Health regulations. There is a minimum seat time requirement of 280 hours for this course.

CULINARY ARTS II DUAL ENROLLMENT*

Number:	**827600**
Recommendation:	**Culinary Arts I**
Credit:	**2**
Grade:	**11-12**

This is the second year of a two-year nationally certified pre-management course offered with The National Restaurant Association's Educational Foundation. Students are required to maintain a grade level of 75% in food handling and safety to remain in this course. Professionalism skills are critical to succeed. This class has a strong emphasis on food preparation, presentation, sanitation, and workplace readiness skills. All kitchen work is performed within the safety and sanitation requirements of VA Health regulations. Upon successful completion of the course with a "C" average or better and logging the required and verified quality work experience hours, students will be certification candidates as long as they have passed both national exams in Culinary Arts I. There is a minimum seat time requirement of 280 hours for this course.

CULINARY ARTS III DUAL ENROLLMENT*

Number:	**827700**
Recommendation:	**Culinary Arts II and RCC Placement Test**
Credit:	**1**
Grade:	**12**

Culinary Arts III provides students with an opportunity to enhance their skills in applying nutritional principles, implementing sanitation and safety standards, and exploring careers. Students have the prospect of specializing in one of the following food-preparation techniques: Baking and Pastry, Catering/Banquet, Restaurant/Business, or Quantity Foods. Critical thinking, practical problem solving, and entrepreneurial opportunities within the field of culinary arts are emphasized. Upon completion, Students review content and receive ServeSafe certification.

Name of Course: Modeling and Simulation Technology (2014) - Course Code 8460

Prerequisite(s):   None: Designed for students in grades 10-12

Course Rationale: This instructional framework for the competency-based CTE course Modeling and Simulation Technology (8460) is designed for use by teachers to help students achieve the validated, specific tasks and/or competencies considered essential for working in a variety of Modeling & Simulation careers common in our geographic area.

Course Description: Students will explore the use of modeling, simulation, and game development software to solve real-world problems in science, technology, engineering, and mathematics (STEM). The activities will include evaluating and testing engineering designs, modeling geospatial data, observing and analyzing physics simulations, programming games for educational purposes, and creating visualization systems with 3D models.

Course Outline: Tasks, competencies, industry certifications, related Standards of Learning, SOL correlations by task, and Computer/Technology Standards of Learning all can be examined here:
 http://www.cteresource.org/verso/courses/8460/modeling-and-simulation-technology-tasklist/1325378427

Intended Outcome of Course: Students will develop an understanding of the systems, processes, and tools and implications of the field of modeling and simulation technology.

Credits: 1

Cost: Class will have an annual expense for Autodesk Maya software licensing, which is already covered by our PLTW contract. Secondly, while current Optiplex computers meet the base standards to run software for this class it is advisable that we upgrade RAM to 8GB. Price varies but should total about 13 dollars per GB added. Finally the Unity 3D game design software must be installed on lab computers and it is free.
   - RAM upgrade - **$1000**

Equipment: GHS already has the necessary equipment

Training/Materials: Teachers must have Unity 3D training/experience and experience with Autodesk Maya.

Gloucester High School
New Course Proposal Form (SB Policy IF-E)

Name of Course: Entrepreneurship Education (Advanced) - Course Code 9094

Prerequisite(s): Entrepreneurship Education (9093/36 weeks)

Course Rationale: Advanced Entrepreneurship Education may be offered as a complement to an existing concentration sequence in any Career Cluster. In some instances, where noted, it may be combined with specific courses to create concentration sequences.

Course Description: This course is designed for students who wish to concentrate on advanced strategies for entrepreneurship, building upon concepts introduced in Entrepreneurship (9093). The focus of the course is on development of a business plan and small business management. Students will establish, market, and maintain a business.

Course Outline: Tasks, competencies, industry certifications, related Standards of Learning, SOL correlations by task, and Computer/Technology Standards of Learning all can be examined here:
http://www.cteresource.org/verso/courses/9094/entrepreneurship-education-advanced-tasklist

Intended Outcome of Course: Students will gain further understanding of aspects of business ownership and operations.

Credits: 1

Cost: Possible classroom set of textbooks ($2000)

Equipment: GHS already has the necessary equipment

Training/Materials: No additional training or materials costs

Gloucester High School
New Course Proposal Form (SB Policy IF-E)

Name of Course: Graphic Communications Systems (2014) - Course Code 8458

Prerequisite(s):   Modeling and Simulation Technology (2014) - Course Code 8460

Course Rationale: This instructional framework for the competency-based CTE course Graphic Communications Systems (8494, 8458) is designed for use by teachers to help students achieve the validated, specific tasks and/or competencies considered essential for working in the following occupation(s): textile designer, press operator, art director, editor, multimedia artist, media planner. Course will act as the finishing course in a sequence starting with the Modeling and Simulation course.

Course Description: This course provides experiences related to a wide range of tools and materials used to reproduce information and images. Several mediums are used, including paper, metal, plastic, and fabric. Students develop competencies in design and layout, composition and assembly, film conversion, image applications, message transfer, and print production.

Course Outline: Tasks, competencies, industry certifications, related Standards of Learning, SOL correlations by task, and Computer/Technology Standards of Learning all can be examined here:
www.cteresource.org/verso/courses/8458/graphic-communications-systems-tasklist

Intended Outcome of Course: Students will develop an understanding of the systems, processes, and tools used to reproduce information and images.

Credits: 1

Cost: Class will have an annual expense for Adobe Creative Cloud software licensing. Current OptiPlex computers fulfill the base standards to operate software for this class; however, it is advisable that RAM is upgraded to 8GB. Unity 3D game software will be installed on lab computers. Approximate costs are as follows:
- RAM upgrade = $1000
- Adobe Creative Cloud = $4800 annually ($240/computer)

Equipment: GHS already has the necessary equipment

Training/Materials: Teachers must have Adobe CC, Unity 3D, & Autodesk Maya skills.

Gloucester High School
New Course Proposal Form (SB Policy IF-E)

Name of Course: Advanced Computer Information Systems - Course Code 6613

Prerequisite(s):   Computer Information Systems, certification in Microsoft 2010 Word and Microsoft 2010 PowerPoint (earned in Computer Information Systems)

Course Rationale: Grade levels 10-12

Course Description: Students apply problem-solving skills to real-life situations through advanced integrated software applications, including printed, electronic, and Web publications. Students work individually and in groups to explore advanced computer maintenance activities, Web site development, programming, networking, emerging technology, and employability skills.

Course Outline: Tasks, competencies, industry certifications, related Standards of Learning, SOL correlations by task, and Computer/Technology Standards of Learning all can be examined here:
http://www.cteresource.org/verso/courses/6613/computer-information-systems-advanced-tasklist

Intended Outcome of Course: Students will gain advanced knowledge in Microsoft Operating Systems.

Credits: 1

Cost: Possible new classroom set of textbooks ($2100)

Equipment: GHS already has the necessary equipment

Training/Materials: No additional training or material costs