

Advanced Cybersecurity

COURSE SYLLABUS

3DE Program at
School of Liberal Studies at Savannah High School



Pre-requisites: Introduction to Digital Technology Introduction to Cybersecurity	Cybersecurity Pathway Introduction to Digital Technology Introduction to Cybersecurity Advanced Cybersecurity
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Course Description (from GeorgiaStandards.org):

Advanced Cybersecurity is designed to provide students the advanced concepts and terminology of cybersecurity. The course explores the field of cybersecurity with updated content including new innovations in technology and methodologies. It builds on existing concepts introduced in Introduction to Cybersecurity and expands into malware threats, cryptography, organizational security, and wireless technologies.

Various forms of technologies will be used to expose students to resources, software, and applications of cybersecurity. Professional communication skills will be used to expose students to resources, software, and applications of cybersecurity. Professional communication skills and practices, problem-solving, ethical and legal issues, and the impact of effective presentation skills are enhanced in this course to prepare students to be college and career ready. Employability skills are integrated into activities, tasks, and projects throughout the course standards to demonstrate the skills required by business and industry. Competencies in the co-curricular student organization, Future Business Leaders of America (FBLA), are integral components of the employability skills standard for this course.

Advanced Cybersecurity is the third course in the Cybersecurity career pathway in the Information Technology Career Cluster. Students enrolled in this course should have successfully completed Introduction to Digital Technology and Introduction to Cybersecurity.

At the successful completion of all three courses in the Cybersecurity Pathway, students will have the opportunity to take the CompTIA certification exam for the end-of-pathway assessment.

Career Opportunities

The Cybersecurity Career Pathway prepares students for every occupation. Specific relevant careers include the support service industry which include but not limited to:

- **Information Security Officer**
- **Data Security Administrator**
- **Management Analysts**
- **Computer Security Specialist**
- **Computer Network Analysts**
- **Computer Network Architects**
- **Computer Systems Engineers**

3DE Program

3DE aims to accelerate students' social and academic outcomes through learning that builds the knowledge, skills and confidence to thrive. 3DE is dedicated to applying solutions to real world problems and instilling a mindset of greatness in our Blue Jacket community.

Throughout the 3DE program, students will have different case challenges/studies in which they will be challenged to solve a real-world problem using case methodology. The case challenge will be incorporated into the Introduction to Cybersecurity curriculum and students will receive positive behavior incentives for completing and participating in each case challenge.

Materials:

- 3-ring binder
- Notebook paper
- Pencils, Black or Blue Pen

Advanced Cybersecurity Standards

Topic	Standard
Employability Skills	IT-ACS-1
Cybersecurity Legal and Ethical Decisions	IT-ACS-2
Malware Threats	IT-ACS-3
Threats and Vulnerabilities (Network Attacks)	IT-ACS-4
Cryptology	IT-ACS-5
Advanced Communications and Wireless Security Techniques	IT-ACS-6
Organizational Security Techniques	IT-ACS-7
Contingency Planning (Incident Response and Disaster Recovery) Techniques	IT-ACS-8
Security Analysis	IT-ACS-9
Risk Management Techniques for Personal Computer and Network Systems	IT-ACS-10
Advanced Methods of Cybersecurity	IT-ACS-11
Career, Technical Student organizations (CTSOs)	IT-ACS-12

3DE Themes and Competencies:

Theme	Competency
Creating & Building Value	Creativity & Innovation
Plan Strategically	Self- Direction
Thinking Critically	Critical & Analytical Thinking
Managing Change	Collaboration and Communication

Evaluation

Grading:

1. 40% Class work, individual participation, group participation
2. 60% Major tests, Major Projects/Research, quizzes

Grading Scale:

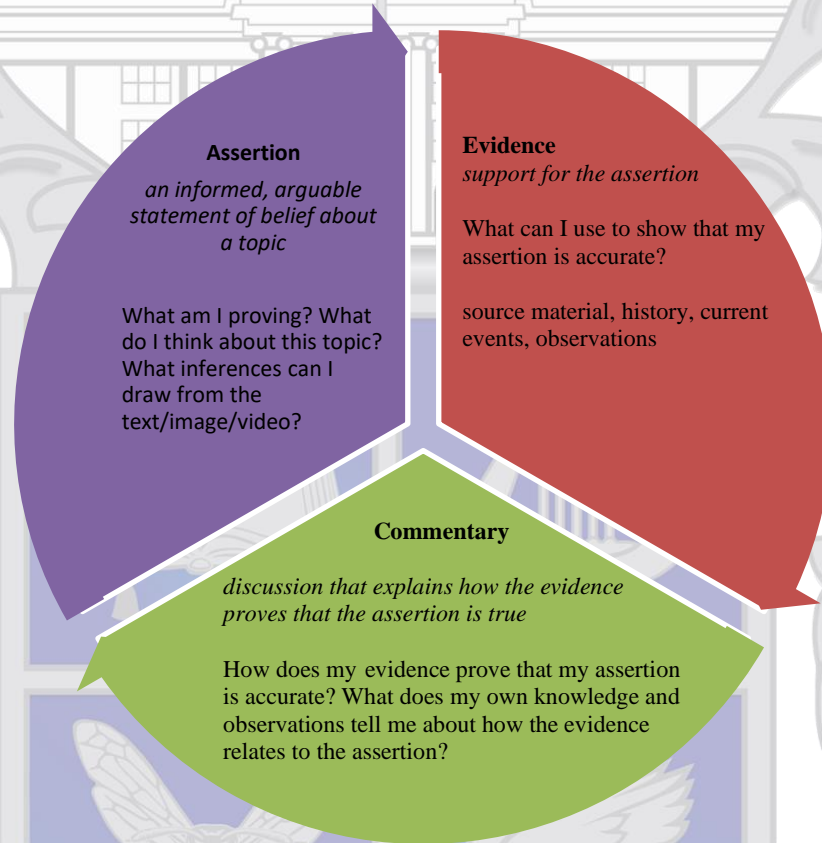
A = 90-100
B = 80-89
C = 70-79
F = 0-69

If a student is not making the required daily academic progress, the student's teacher will contact the parent via phone, email, or mail to request a conference or discuss intervention strategies.

Make-up Work and Re-Test Policy

Students are responsible for any work missed due to absences from school. If you miss a scheduled exam and/or class assignment during your absence, it is your responsibility to request a retest and/or the class assignments within a week of your return.

AEC WRITING STRATEGY



	Distinguished	Proficient	Developing	Beginning
Assertion	Assertion directly addresses the prompt, is arguable, clearly and compellingly communicates writer's position, and is thoughtfully constructed.	Assertion clearly states writer's position, is arguable, and directly addresses the prompt.	Assertion is attempted but may be incomplete or unclear clear.	Assertion is missing or does not effectively address the prompt.
Evidence	Evidence is well chosen, seamlessly incorporated, relevant, specific, and correctly cited if needed.	Evidence is relevant but could be more specific in places. Evidence is generally correctly cited if needed.	Evidence is present but may not adequately relate to the assertion.	Evidence is missing or irrelevant.
Commentary	Commentary is insightful and effectively demonstrates how the evidence supports the assertion.	Commentary explains how the evidence supports the assertion.	Commentary is attempted, but writer sometimes substitutes summary for commentary. Some commentary may not directly connect evidence to assertion.	Commentary is missing, entirely summary, or unrelated to assertion and evidence.
Conventions	Writing has virtually no errors in conventions.	Writing has 1 or 2 errors in conventions that do not detract from quality or effectiveness.	Writing has several errors that may detract from quality or effectiveness.	Writing has significant errors that are distracting and that detract from quality and understanding.

Advanced Cybersecurity /3DE Course Syllabus and Course Expectations

I have read the Intro to Cybersecurity syllabus. By signing this form, I am stating that I have read and understand all the expectations of the Intro to Cybersecurity course.

Student's Printed Name:

Student's Signature:

Parent's Signature:

Parent's Phone Number:

Date:

Please keep the course syllabus at home. Your student should return only this signed slip to school by January 7, 2022.