

**SUNY Broome Community College  
General Education Course Proposal Form**

**I. Course Information/Signature Page**

Date: **9/27/2017**

Course Title: **CST109 – Computer and Malware History**

Proposed Course Title *(only for courses proposing new titles through Curriculum Committee):*

[Click here to enter proposed course title.](#)

Department/Subject Designator: **Computer Science**

Number credits: **3**

Pre-requisites/Co-requisites: **None**

Sponsor Proposer: **Peggy Sniezek**

Sponsor Department(s): **Computer Science**

Cross-listed proposer (if applicable): [Click here to enter cross-listed proposer.](#)

Cross-listed department (if applicable): [Click here to enter cross-listed department.](#)

Effective semester/year of Proposed GE Addition: [Click here to enter a date GER addition.](#)

<i>Approvals</i>		Yes	No
<b>Sponsoring Department:</b> (Chair signs for Department)	Date		
Comments:			
<b>Department Chair:</b>	Date		
Comments:			
<b>Sponsoring Division:</b> (Dean signs for Division)	Date		
Comments:			
<b>Cross-listed Department (if applicable):</b> (Chair signs for Department)	Date		
Comments:			
<b>Cross-listed Division (if applicable):</b> (Dean signs for Division)	Date		
Comments:			
<b><i>These signatures will be obtained upon approval of the course as a General Education course</i></b>			
<b>General Education Committee:</b> (Chair signs for Committee)	Date		
Comments:			
<b>Registrar:</b>	Date		
Comments:			
<b>EVP/CAO:</b>	Date		
Comments:			

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**II. SUNY GER Categories**

a. Select a category for which the course is proposed to become a General Education course. *Please note that your course must meet the learning outcomes for the specific General Education category selected.*

**American History**

b. Select any infused competencies for which your course meets. *Please note that if selected, your course must demonstrate that it meets these learning outcomes.*

**Information Management**

c. If the course is proposed to meet the Basic Communication General Education category, please check as to whether the course fulfills oral and/or written skills. If not applicable, please check N/A.

Oral     Written     N/A

d. Justification. Please specify how this course meets the General Education content guidelines. Your response should specifically address how your course meets the content guidelines detailed in the Guidelines for the Approval of State University General Education Required Courses found at: [http://system.suny.edu/media/suny/content-assets/documents/academic-affairs/general-education/GenEdCourseGuidelines\\_2017.pdf](http://system.suny.edu/media/suny/content-assets/documents/academic-affairs/general-education/GenEdCourseGuidelines_2017.pdf)

**This course explores the history of the personal computer industry, and relates the evolution of computers with that of networking and the emergence of malicious code, Internet attacks, and identity theft.**

**III. Learning Outcomes**

a. Have the student learning outcomes changed to meet the General Education category requirements? *Please note if the student learning outcomes have changed, these changes must be submitted to the Curriculum Committee for approval.*

Yes     No

b. If this is a course which does not require Curriculum Committee approval, please provide the student learning outcomes as listed on the College Catalogue. *Please note student learning outcomes must encompass SUNY outcomes for the selected SUNY-GER category.*

Upon successful completion of this course the student will be able to:

1. Describe the evolution of the Intel microprocessor family and its relationship to the evolution of malicious code.
2. Understand how the power of the personal computer is related to the microprocessor used inside it.

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3. Explain how the emergence of networking and the world-wide-web led to many of the computer security issues facing us today.
4. Explain how microprocessor technology, computer networking, and operating system vulnerabilities all combine to enable the evolution and spread of malicious code.
5. Describe how computers and the Internet combine to enable identity theft and other illegal activities.

c. If this is a new or revised course concurrently submitted to the Curriculum Committee please attach the Curriculum Committee proposal forms to this document.

#### **IV. Catalogue Description**

a. If this is a course which does not require Curriculum Committee approval, please enter the actual description of this course as listed in the SUNY Broome College Catalogue.

**This course explores the history of the personal computer industry, and relates the evolution of computers with that of networking and the emergence of malicious code, internet attacks, and identity theft. The relationship between all three is explored in depth so that the student has a clear understanding of the environment in which they will be performing additional study and eventually, actual work activities.**

b. If this is a new or revised course concurrently submitted to the Curriculum Committee please attach the Curriculum Committee proposal forms to this document.

#### **V. Topical Outline**

Please describe the specific topics which will be addressed within this course. *You should ensure that your topical list meets the General Education category student learning outcomes.*

- 1. People and Computers**
- 2. Early Computing Attempts**
- 3. The Invention of the Computer**
- 4. The Age of the Mainframe**
- 5. Intel Microprocessor History**
- 6. Real Time Computing**
- 7. Software Evolution**
- 8. The Changing Shape of the PC**
- 9. The Evolution of Computer Networking**
- 10. The World Wide Web**
- 11. When Code Attacks**
- 12. The Future of Computing and Communication**

#### **VI. List of Sample Readings**

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Please provide a list of specific readings required for this course, including applicable texts. If applicable, please include links to the specific readings. *You should ensure selected readings demonstrate their use will lead to achievement of the General Education category student learning outcomes.*

**Computer: A History of the Information Machine 3<sup>rd</sup> Edition by Campbell-Kelly, Aspray, Ensmenger, Yost**

**Computer: A History of the Information Machine** traces the history of the computer and shows how business and government were the first to explore its unlimited, information-processing potential. Old-fashioned entrepreneurship combined with scientific know-how inspired now famous computer engineers to create the technology that became IBM. Wartime needs drove the giant ENIAC, the first fully electronic computer. Later, the PC enabled modes of computing that liberated people from room-sized, mainframe computers.

### **VII. Syllabus**

It is encouraged, but not required, that you attach a copy of the course syllabus to facilitate review of your course. The syllabus should indicate that completion of this course will satisfy the specified SUNY-GER area(s).

Please note according to SUNY guidelines, any course that fulfills General Education requirements must assess the SUNY-specified learning outcomes for that particular General Education area. Therefore, the syllabus should specifically address the required learning outcomes for the SUNY-GER area(s) identified along with how they will be delivered and assessed.

### **VIII. SUNY Broome General Education Assessment Plan**

Both SUNY and Middle States require that the College's General Education Curriculum be regularly assessed in order to ensure its rigor and quality. As mandated by SUNY, SUNY Broome is required to develop and implement periodic evaluation of assessment of student achievement of student learning outcomes associated with the SUNY General Education Requirement.

Please complete the General Education Assessment Plan form constructed by the Student Learning Assessment Committee (SLAC) below. This form outlines the assessment schedule for the next 3 planned SUNY GER assessments, SUNY GER outcomes, and the alignment of local, SUNY GER, and SUNY Broome ILOs. The completion of this form is integral for the SLAC and General Education Committee to assess the overall State of the SUNY General Education Curriculum at SUNY Broome. **If you have questions about completing this section of the form, please contact the Chair of SLAC for assistance.**

**Terms:**                      **SLO=** Student Learning Outcomes                      **ILO's=**Institutional Learning Outcomes

**SUNY Broome General Education Course Assessment Map & Plan  
SUNY Broome GE Course SLO Alignment with SUNY-GER Course Alignment/SUNY Broome ILOs**

**Course Number & Title: CST109 – Computer and Malware History**

**SUNY-GER Category #: Category 4: American History**

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**SUNY-GER Competencies: Infused Competency 2: Information Management**

**Date of Submission: 9/12/2017**

**Assessment Schedule: 3**

**Alignment of Local (select), SUNY-GER, & SUNY BCC ILOs**

Course SLO (List the Course SLOs which align with the SUNY-GER and BCC ILOs)	SUNY-GER SLO (List the SUNY-GER SLOs as identified in the GER-outcomes)	SUNY BCC ILO (List the SUNY BCC ILOs as identified below)	Assessment Timeline (List assessment schedule/frequency)	Learning Activity (List the learning activity used to assess)	Criteria for Success (List criteria used to determine successful completion of SLOs/ILOs)
<p><span style="color: red;">1.</span> Describe the evolution of the Intel microprocessor family and its relationship to the evolution of malicious code.</p> <p>2. Understand how the power of the personal computer is related to the microprocessor used inside it.</p> <p><span style="color: red;">3.</span> Explain how the emergence of networking and the world-wide-web led to many of the computer security issues facing us today.</p>	<p><span style="color: red;">1. Knowledge of a basic narrative of American history: political, economic, social, and cultural, including knowledge of unity and diversity in American society.</span></p> <p><span style="color: red;">2. Knowledge of common institutions in American society and how they have affected different groups</span></p> <p><span style="color: red;">3. Understanding of America's evolving relationship</span></p>	<p><span style="color: red;">3. Retrieve, organize, analyze, evaluate, and appropriately use information.</span></p> <p><span style="color: red;">5. Reflect on, reason about, and form independent judgements on a variety of ideas and information, and use these skills to guide their beliefs and actions.</span></p>	<p><span style="color: red;">Assessment to be performed every three years per the plan for assessment of STEM courses.</span></p> <p><span style="color: red;">The next scheduled assessment is Academic Year 2020-2021.</span></p>	<p><span style="color: red;">Students will complete two exams and a capstone paper for CST109. Students will choose a topic from a list of given topics for the capstone project. Students will be encouraged to tour local computer history museums and online sites for further research.</span></p> <p><span style="color: red;">Outcomes will be assessed by using select questions from the exams and</span></p>	<p><span style="color: red;">Exceed = grades 90-100, letter grades A, A-</span></p> <p><span style="color: red;">Meet = grades 80-90, letter grades B-, B, B+</span></p> <p><span style="color: red;">Approach = grades 70-80, letter grades C-, C, C+</span></p> <p><span style="color: red;">Fail to Meet = grades 69 and below, letter grades D, F</span></p> <p><span style="color: red;">75% of students will achieve at least the Approach level.</span></p>

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<p>4.Explain how microprocessor technology, computer networking, and operating system vulnerabilities all combine to enable the evolution and spread of malicious code.</p> <p>5.Describe how computers and the Internet combine to enable identity theft and other illegal activities.</p>	<p><b>with the rest of the world.</b></p>			<p><b>evaluation of the project.</b></p>	
<p><a href="#">Click here to enter Course SLO.</a></p>	<p><a href="#">Click here to enter SUNY-GER SLO.</a></p>	<p><a href="#">Click here to enter SUNY BCC ILO.</a></p>	<p><a href="#">Click here to enter Assessment timeline.</a></p>	<p><a href="#">Click here to enter Learning Activity.</a></p>	<p><a href="#">Click here to enter criteria for success.</a></p>
<p><a href="#">Click here to enter Course SLO.</a></p>	<p><a href="#">Click here to enter SUNY-GER SLO.</a></p>	<p><a href="#">Click here to enter SUNY BCC ILO.</a></p>	<p><a href="#">Click here to enter Assessment timeline.</a></p>	<p><a href="#">Click here to enter Learning Activity.</a></p>	<p><a href="#">Click here to enter criteria for success.</a></p>

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<a href="#">Click here to enter Course SLO.</a>	<a href="#">Click here to enter SUNY-GER SLO.</a>	<a href="#">Click here to enter SUNY BCC ILO.</a>	<a href="#">Click here to enter Assessment timeline.</a>	<a href="#">Click here to enter Learning Activity.</a>	<a href="#">Click here to enter criteria for success.</a>
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**SUNY Broome Institutional Learning Outcomes (ILO's):**

1. Apply relevant knowledge, technology, and tools from the academic disciplines in the contexts of personal, professional, and civic interactions, with sensitivity to diverse peoples and cultures.
2. Read, write, speak, and listen effectively in both personal and professional spheres.
3. Retrieve, organize, analyze, evaluate, and appropriately use information.
4. Perform effectively as a team member.
5. Reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.
6. Exercise individual and social responsibilities through personal development and self-advocacy, healthy life-style choices, ethical behavior, civic involvement, interaction with diverse cultures, commitment to life-long learning, and engagement with global issues.
7. Integrate knowledge and skills gained and adapt them to new settings, questions, and responsibilities.

**Submission Instructions:**

Email the completed **General Education Course Proposal Form**, copy of the course syllabus, course readings, and any supporting material to the Chair of the General Education Committee. In addition, please send a hard copy of this form and Curriculum Committee proposal forms (as required). For courses going through Curriculum Committee, the proposer is expected to provide evidence of the course receiving approval from the Curriculum Committee.