COURSE INFORMATION

In this course, students will learn the types of computer-based devices, systems, and networks used in modern business/industrial environments and the ways in which these elements can be compromised via cyber-attacks.

Instructional Level: Associate Degree
Credits: 3
Pre/Corequisites:
- Prerequisite: CET 152 and CET123

CLASS INFORMATION

Section Number:
Term: Fall Year: 2024 Start Date: 8/26/2024 End Date: 12/10/2024

INSTRUCTOR

Dr. John Hoye
Email: hoyej@kellogg.edu

Office Phone: (269) 565-7892
Mobile Phone: (269) 555-1212
Office Location: OITC-201C

TEXTBOOKS

None

SUPPLIES

- USB Drive at least 16GB

GENERAL EDUCATION LEARNING OUTCOMES

Effective Communication

Criteria
- Graduates will demonstrate effective communication appropriate to audience and purpose.
- - Students will develop content, matching clarity and formality with the audience and purpose.
- - Students will refine the communication using appropriate processes and structural approaches to meet the audience's expectations/needs.
- - Students will document sources both to meet the audience's expectations and to respect the intellectual property of others.

Critical Thinking
   Criteria
   • Graduates will analyze arguments and evaluate evidence, draw conclusions,
     make decisions, and solve problems from a variety of perspectives.

Personal & Cultural Engagement
   Criteria
   • Graduates will engage through exploration of civic, intercultural, and
     ethical issues, making connections between their knowledge, choices, and
     actions.
   • - Students are able to identify a social problem(s) impacting a defined
     community.
   • - Students are able to evaluate the identified social problem(s) impacting
     the defined community through the lens of diversity, equity, and inclusion.
   • - Students are able to formulate an ethical strategy of addressing the
     identified social problem impacting their community via civic institutions
     and/or the democratic process.

PROGRAM/STUDENT LEARNING OUTCOMES

Evaluate the computer network and information security needs of an organization.
Assess cybersecurity risk management policies in order to adequately protect an
organization's critical information and assets.
Measure the performance of security systems within an information system.
Troubleshoot, maintain and update an information security system.
Analyze and evaluate the cybersecurity needs of an organization.
Implement cybersecurity solutions.
Design operational and strategic cybersecurity strategies and policies.

COURSE LEARNING OUTCOMES

1. Be able to identify vulnerabilities in cyber security defense within a devices
   architecture.

2. Be able to apply techniques to reinforce vulnerabilities identified within a
   devices architecture.

3. Be able to identify vulnerabilities in cyber security defense within devices
   applications and operating system structure.

4. Be able to apply techniques to reinforce vulnerabilities identified within the
   devices application and operating system structure.

GRADING INFORMATION

KCC Institutional Grading Chart

Percentage	Grade	GPA

Score	Grade	GPA
100.00-93.00	A	4.00
92.99-90.00	A-	3.67
89.99-87.00	B+	3.33
86.99-83.00	B	3.00
82.99-80.00	B-	2.67
79.99-77.00	C+	2.33
76.99-73.00	C	2.00
72.99-70.00	C-	1.67
69.99-67.00	D+	1.33
66.99-63.00	D	1.00
62.99-60.00	D-	0.67
59.99-0.00	F	0.00

Additional Grades

X	Audit
I	Incomplete
W	Withdrawal
P	Pass (grade of a C or higher)
N	No Credit

*These grades are not computed in either the semester or cumulative grade point averages.

**Contact Financial Aid for more information on financial impact.

INSTITUTIONAL GUIDELINES AND POLICIES

Academic Support Services

Kellogg Community College is committed to your academic success. If for any reason you are struggling with a class, speak to your Professor immediately. They are the best resource. Additional resources, including tutoring are available at the Center for Student Success.

Students enter each class with various skill sets and learn course material at different paces. As such, faculty have the option of requiring individual students to seek tutoring assistance in the Center for Student Success based on

academic performance. These early interventions will be tailored to the needs of each student.

Academic Integrity Policies

Ethical conduct is the obligation of every member of the KCC community. Breaches of academic integrity constitute serious breaches of ethical conduct. Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. This policy demonstrates KCC's concern for academic integrity and guarantees a fair procedure for handling these concerns. For more information regarding KCC's Academic Integrity Policy is found in the KCC College Catalog or KCC Operating Policies & Procedures under Instruction - Students.

American with Disabilities Act and Section 504

Kellogg Community College does not discriminate in the admission or treatment of students on the basis of disability. KCC is committed to compliance with the American Disabilities Act and Section 504 of the Rehabilitation Act. See Student Handbook for information about student services.

Attendance

Regular attendance is an essential part of the educational experience and a requirement for an adequate evaluation of each student's academic progress. Excessive absence is reported to the Academic Advising department. An Advisor will reach out to students to discuss options for success. Continued absenteeism may lead to administration action. Faculty are required to report to the Financial Aid office students who have never attended class. Federal aid may be reduced if a student does not begin attendance in all classes. This includes online courses. For more information, please refer to the KCC Student Handbook.

Code of Conduct

Kellogg Community College students are expected to model the skills and behaviors of working professionals. This includes exhibiting behaviors which support respect and courtesy in the class environment. For more information regarding KCC's Student Code of Conduct, please refer to the KCC Student Handbook.

Disability Services

While ensuring the academic integrity of its programs, Kellogg Community College is dedicated to providing the reasonable accommodations needed to ensure equal access to educational opportunities for individuals with verified disabilities. Disability services are provided to students who self-disclose a disability to the Center for Student Success and provide appropriate documentation. The Center for Student Success may be reached at 269.965.4150.

Drop/Add

The drop/add dates for every course may be found on the KCC Catalog - Class Schedule.

Incomplete Grade and Additional Grading Policies

For information regarding additional grading policies, please refer to the KCC Academic Catalog.

Instructional Policies

Instructional policies provide informed guidance to college faculty, staff, and students. Becoming familiar with KCC Instructional Policies & Procedures will support individual academic success and will provide students vital resources to resolve problems.

Retain this Syllabus & Syllabus Disclaimer

This syllabus is a record of learning outcomes associated with this course. Many institutions will require a copy of this syllabus to grant transfer credit. It is the student's responsibility to retain a copy for future use.

Information contained in this syllabus was, to the best knowledge of the instructor, considered correct and complete when distributed for use at the beginning of the semester. However, this syllabus should not be considered a contract between Kellogg Community College and any student, nor between the instructor and any student. The instructor reserves the right, acting within the policies and procedures of Kellogg Community College, to make changes in course content or instructional techniques without notice or obligation.

Textbook Statement

There are multiple choices for purchasing textbooks, including the Kellogg Community College bookstore (www.kellogg.edu - follow the on campus link to the bookstore). Please be advised that each student should fully investigate the refund policies of book retail stores, including the Kellogg Community College bookstore, PRIOR to purchasing a book for any course. When purchasing a book from the Kellogg Community College bookstore, students are encouraged not to break a textbook's binding, or open a book in shrink-wrap covering, prior to attending the first course session in order to verify that a correct book has been purchased. Students are advised to keep all receipts from book purchases.

Some KCC courses utilize Inclusive Access (I.A.) textbooks. This does not apply to all course sections. This applies only to course sections using digital access/inclusive access.

If students have already purchased a code for digital access from textbook publishers such as Cengage, Pearson, or McGraw-Hill, they should OPT OUT of the I.A. textbook attached to the course section (for example, a code for Cengage Unlimited). Students will be able to OPT OUT via the Moodle learning management shell associated with the course section. Students have until the drop/add date of the course section to OPT OUT. KCC will issue a refund back to the student account if the student OPTs Out during the allowed time frame. For more information, contact the course instructor.

Use of Technology & Student Email Accounts

The College has a variety of computer systems which are provided for the use of students and are to be used for education, research, academic development, and public service only. You are responsible for seeing that the computing facilities are used in an effective, efficient, ethical, and lawful manner. Computer systems, such as e-mail, are intended for college related activities only. Inappropriate messages and/or materials are not to be sent or stored. For more information, visit the KCC web page at: www.kellogg.edu.

Safe and Successful Campus Environment

KCC is dedicated to providing a safe environment which is conducive to success for all students. When faculty and staff notice that a student is struggling emotionally, intellectually, or behaviorally with classroom expectations, they may notify the appropriate College personnel to intervene; in such cases, students may be contacted by College personnel who will offer support and assistance.

If you have a safety concern(s) about others' behavior in class or on campus, please report those concerns online at Report an Incident. KCC Public Safety is located in the walkway across from the Ohm building or by notifying Public Safety by using one of the yellow emergency call boxes on campus, or calling 269.965.4147.

KCC does not tolerate sexual harassment or sexual misconduct of any kind and is legally obligated to investigate such concerns. Sexual harassment includes sexual assault, dating violence, domestic violence, and stalking. KCC is an equal opportunity educator and employer, and does not discriminate on the basis of national or ethnic origin, ethnicity, race, ancestry, color, sex (sex or gender,

affiliation, expression or orientation), marital/family status, age, physical or mental ability or attributes, genetic information, political affiliation, veterans status, religion, or any other characteristic covered by law in its admission policy, education programs, activities, or employment policies. KCC also prohibits relation against any person participating in good faith in any investigation or complaint process internal or external to the institution; for bringing a complaint of harassment or misconduct; for assisting someone with such a complaint; for attempting to stop harassment or misconduct. Students should report concerns at [Report an Incident](). Learn more at [www.kellogg.edu/titleix]().

Service Learning

Incoming students enrolled in any degree seeking program will be required to complete a service-learning endorsement to qualify for graduation. KCC instructors must be Service-Learning Certified in order to offer it as an option in their course section. If this section is offering service-learning opportunities, the instructor will provide further details about how to pursue service-learning in this course.

STUDENT LEARNING OBJECTIVES

- Review of hardware and architecture of commonly used devices used in businesses, such as laptop, desktops and netbooks.
- Review of hardware and interfaces used with mobile tablets, phones and controller devices such as those used in IoT.
- Introduction to industrial controller devices in hardware architecture and programming such as PLC and other commonly used controllers.
- Develop skills to identify vulnerabilities in both hardware architectural and software.
- Develop the skills apply techniques used to reinforce the identified vulnerabilities in both the hardware architecture and software.

KCC - GENERAL EDUCATION COURSE

This course is considered a General Education course. For more information, please see the Kellogg Community College catalog under 'Instructional Information — General Education.