

**Syllabus**

**Fundamentals of Network Security 3cr**

**Spring 2018**

**Class Time:** 01/16/2018 – 05/11/2018

Independent Study

**Instructor:** TBA

**Course Information**

**Course Description:** This course provides the student with an overview of Information Technology

(IT) Security and introduces the components necessary to secure network information systems. Topics include security policies, intrusion detection systems (IDS), firewalls, operating system security and network security basics. Students will also be introduced to current hacker techniques and log auditing processes. Current computer security issues will also be explored as class projects.

**Prerequisites and Co-requisites:** NET298 Networking II

**Course Goals:**

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

1. Develop a fundamental understanding of network security principles and implementation.
2. Learn about the technologies used and principles involved in creating a secure computer networking environment including authentication, types of attacks and malicious code that may be used against a network, the threats and countermeasures for e-mail, Web applications, remote access, and file and print services.
3. Discuss a variety of security topologies as well as technologies and concepts used for providing secure communications channels, secure internetworking devices, and network medium.
4. Learn about intrusion detection systems, firewalls, and physical security concepts, security policies, disaster recovery, and computer forensics.
5. Understand the daily tasks involved with managing and troubleshooting network security technologies.

**Required Textbooks/Software/Other Materials:**

Maiwald, Eric, Fundamentals of Network Security, McGraw Hill, 2003

USB Flash Drive or Cloud Storage

**Attendance Expectations:** As an independent study class, attendance in this class is tracked by consistent progress in the class through logging in and completing assignments in the Canvas online learning management system.

**Evaluation Methods, Grading**

**Grading Policies:** Grades are maintained on the Canvas online learning management system for student viewing as courses progresses. The following grading scale with used:

**Grading Scale:** (Example)

|  |  |
| --- | --- |
| A | 89.5-100 |
| B | 79.5-89 |
| C | 69.5-79 |
| D | 59.5-69 |

**Topical Outline**

*Schedule the class meeting dates, and note any days in which the college is closed. To access the academic calendar, visit* [*eicc.edu*](http://www.eicc.edu) *> Future Students > Academic Calendar.*

1. What Is Information Security

2. Types of Attacks and Hacker Techniques

3. Security Services

4. Legal Issues and Policy

5. Managing Risk

6. Information Security Processes and Best Practices

7. Firewalls

8. Virtual Private Networks

9. Encryption

10. Intrusion Detection

11. Desktop Protection

12. Network Operating System Security Issues

13. Internet Architecture

14. E-Commerce

15. Wireless Security

**College Policies**

The Student Handbook is online at [eicc.edu/handbook](http://www.eicc.edu/handbook). Any questions about the handbook should be directed to the Dean of Student Development.

**Academic Integrity:** College deans may initiate disciplinary proceedings against a student accused of Academic Dishonesty. Academic Dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. Academic dishonesty will not be tolerated in any course at this college. Plagiarism and others forms of cheating are examples of such dishonesty and will result in serious consequences. Plagiarism is presenting someone else’s words as your own, whether in writing or in speaking.

**FERPA Information**: Scott Community College, in full compliance with the Family Educational Rights and Privacy Act of 1974, shall make educational records available to students upon request. Likewise, in accordance with the law, individually identifiable educational records will not be released to other than authorized individuals without written consent of the student. Students have the right to file complaints with the Family Educational Rights and Privacy Act (FERPA) Office concerning alleged failures by the institution to comply with the act. For more information, visit [eicc.edu](http://www.eicc.edu) > About EICC > FERPA.

**Resources**

**Disability Services**: SCC is committed to providing access to all students. Anyone who feels they may need an academic accommodation based on the impact of a documented disability should contact the disability resources person on the Belmont campus at 536-441-4027 to arrange an appointment as soon as possible. At the appointment, course format, individual needs, and potential accommodations will be discussed. It is important to request accommodations promptly in order to receive your accommodations in a timely manner. Instructors can only provide accommodations after being presented with a completed EICC Accommodation Form. This service is FREE and confidential.

**Free Peer Tutoring:** The SCC Success Center offers one-on-one or group tutoring in a variety of subjects. Peer tutors can help you study, discuss difficult material, or answer questions about assignments and homework. You can schedule an appointment with a tutor or stop by during drop-in hours. To find a tutor or make an appointment, please come to the Success Center or call 563-441-4026 for more information.

**Writing Center:** The Writing Center is a free on-campus resource to help SCC students become more proficient, confident writers. Students at any level, from any class, can meet one-on-one with experienced writing consultants who will provide feedback and support for any kind of writing assignment. The goal of the Writing Center is to develop skills that will serve writers in their next assignment, their future classes, and their professional lives. Call 563-441-4026 or stop by the SCC Success Center for more information.

**English Language Acquisition:** For students who primary language is other than English and who believe that receiving academic assistance is necessary for their success, the following resource guidelines are offered:

* Meet with your instructor at the beginning of the course to discuss strategies for success.
* Seek free tutoring by contacting the SCC Success Center (see above).
* Manage your time so you can sufficiently understand the coursework and assignments.

**Family Resources:** Sometimes we need a little extra support - maybe for depression, family problems, or day-to-day stress. Free counseling services are available on campus to all students through a licensed therapist from Family Resources, Inc. Appointments can be made at the Student Center front desk or by calling 563-288-6001.

**Military**: Eastern Iowa Community Colleges seeks to provide a learning environment that is welcoming to all students. Any active or reserve military who would like to discuss transitioning from the military into the academic environment, please contact Rebecca Geiken. She is available to assist all veterans and their families in accessing programs and services within the college and community to enhance the educational experience. We have a Student Veteran’s Organization and a Veteran Center in room 1019 on the Belmont campus. Rebecca Geiken, Military and Veteran Student Affairs Facilitator, rgeiken@eicc.edu or by phone at 563-441-4060.

**Retention Alert:** One of the most efficient and effective ways to improve student success and retention is to identify problems early and take swift action. EICC uses an automated tool that helps students by alerting the appropriate parties, triggering the appropriate response, setting up and tracking an action plan, and monitoring success.

**Campus Communication:** In an effort to keep our students safe and informed in emergency situations, EICC has a system to help alert students, faculty, and staff of school closings and other emergencies. EICCAlert is a free service\* to send text and voice messages and email notifications. Signup for alerts at <https://www.eicc.edu/about-eicc/eiccalert/>. Also, login to EICConnect for daily cancellations, activities, and events.

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*The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0/.*

