The Hashemite University

الجامعـــــة الهاشميـــــة

Deanship of Academic Development and International Outreach

عمادة التطوير الأكاديمي والتواصل الدولي

Network Security (1910011422)

Second Semester 2021/2022

COURSE INFORMATION	
Course Name: Network Security **Semester:** Second Semester 2021/2022 **Department:** Department of Computer Science and Applications **Faculty:** Prince Al-Hussein Bin Abdullah II Faculty for Information Technology	**Course Code:** 1910011422 **Section:** Mandatory **Core Curriculum**:
Days and Times: Monday: 11:00-12:30 Wednesday: 11:00-12:30 **Classroom:** IT 303	**Credit Hours:** 3 **Prerequisites**: 1910011320 – Computer Networks

COURSE DESCRIPTION

Three credit hours is counted for this course. This course provides an introduction to the various issues surrounding network security. Issues to be addressed include how networks are initially targeted for intrusion, the methods and tools employed in this intrusion process, denial of service attacks, and how this illegal access is maintained, and how intrusions are hidden from network administrators.

DELIVERY METHODS

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures and active classroom based discussion
- Video lectures
- E-learning resources: e-reading assignments and practice quizzes through Model and Microsoft Team

FACULTY INFORMATION

Name	**Ashraf Aljammal**
Academic Title:	**Associate Professor**
Office Location:	**IT 236**
Telephone Number:	
Email Address:	**ashrafj@hu.edu.jo**
Office Hours:	**Monday** 3:15-4:30 **Wednesday** 3:15-4:30 *Please send an e-mail (ashrafj@hu.edu.jo) to meet at any other time.*

REFERENCES AND LEARNING RESOURCES

Required Textbook: Security+ Guide to Network Security Fundamentals, 5th Edition by Mark Ciampa. Published by Cengage 2016..

Suggested Additional Resources:

- Network Forensics: Tracking Hackers through Cyberspace, 1st edition by Sherri Davidoff,Jonathan Ham, published by Pearson education 2012.
- Network Security Bible, 2nd edition by Eric Cole, published by Wiely 2009.

STUDENT LEARNING OUTCOMES MATRIX*

Core Curriculum Learning Outcomes	Program Learning Outcomes	Course Objectives	Student Learning Outcomes	Assessment Method
Understand, and evaluate computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	Teach computer science as a discipline of problem-solving.	• Explain the underlying concepts and principles of computer security.	SLO2	Exams
		• Describe Systems Threats and Risks, and protecting systems.	SLO1	Assignment
		• Describe Network Vulnerabilities and Attacks types.	SLO1	Exams
		• Explain network defenses and access control fundamentals.	SLO2	Exams & quiz
		• Explain how to perform Vulnerability Assessments.	SLO2	Exams

ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their Instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

Special Needs Section:
Tel:
Location:
Email:

COURSE REGULATIONS

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance*. It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

Late or Missed Assignments

In all cases of assessment, students who fails to attend an exam or assignment discussion on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a fail grade for this part of the assessment.

- Submitting the assignment on time is a key part of the assessment process (Late turn-ins not allowed). There will be a discussion after the deadline and not attending the discussion means your mark will be zero.
- In cases where a student misses an exam on account of a medical reason or with prior permission; in line with University regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

Assessment	Grade Weighting	Deadline Assessment
Mid Exam	40%	
Assignment	10%	
Quiz	10%	
Final Exam	40%	

Description of Exams

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of multiple choice questions.

No make-up exams, homework or quizzes will be given. Only documented absences will be considered as per HU guidelines.

Grades are not negotiable and are awarded according to the following criteria*:

Letter Grade	Description	Grade Points
A+	Excellent	4.00
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Good	2.50
C		2.25
C-		2.00
D+	Pass	1.75
D	Pass	1.50
F	Fail	0.00
I	Incomplete	-

WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

Topic	Chapter in Text	Week #
Introduction to Security	Ch1	Week 1,2
Systems Threats and Risks	Ch2	Week 3,4
Protecting Systems	Ch3	Week 5,6
Network Vulnerabilities and Attacks	Ch4	Week 7,8
Network Defenses	Ch5	Week 9,10,11
Access Control Fundamentals	Ch7	Week 12,13
Performing Vulnerability Assessments	Ch9	Week 14,15