Chair: Tracy Christofero | **GC#6: Course Addition**

# Request for Graduate Course Addition

1. Prepare one paper copy with all signatures and supporting material and forward to the Graduate Council Chair.
2. E-mail one identical PDF copy to the Graduate Council Chair. If attachments included, please merge into a single file.
3. ***The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.***

College: CITE | Dept/Division: Computer Science | Alpha Designator/Number: CYBR/530 | (•) Graded ( ) CR/NC

Contact Person: Dr. Wook-Sung Yoo | Phone: x5452

**NEW COURSE DATA:**

New Course Title: Cybersecurity Policies and Management

Alpha Designator/Number: C Y B R / 5 3 0

Title Abbreviation: C y b e r s e c P o l i c i e s & M g m t

(Limit of 25 characters and spaces)

Course Catalog Description: (Limit of 30 words)
The course covers risk management, integrating continuous monitoring and real-time security solutions with information systems to improve situational awareness and deployment of countermeasures.

Co-requisite(s): None | First Term to be Offered: Spring 2019

Prerequisite(s): None | Credit Hours: 3

Course(s) being deleted in place of this addition (*must submit course deletion form*): NA

Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation attached.

| | |
|---|---|
| Dept. Chair/Division Head Yoo, Wook | Date 9/17/18 |
| Registrar 110101 | Date 9/21/18 |
| College Curriculum Chair | Date 9/28/18 |
| Graduate Council Chair | Date |

# Request for Graduate Course Addition - Page 2

College: CITE | Department/Division: Computer Science | Alpha Designator/Number: CYBR/530

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. FACULTY: Identify by name the faculty in your department/division who may teach this course.

Paulus Wahjudi, Ph.D.
Wook-Sung Yoo, Ph.D.

2. DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "***Not Applicable***" if not applicable.

Not Applicable

3. REQUIRED COURSE: If this course will be required by another deparment(s), identify it/them by name. Enter "***Not Applicable***" if not applicable.

Not Applicable

4. AGREEMENTS: If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "***Not Applicable***" if not applicable.

Not Applicable

5. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials to teach this course, attach an estimate of the time and money required to secure these items. (Note: Approval of this form does not imply approval for additional resources.) Enter "***Not Applicable***" if not applicable.

Not Applicable

6. COURSE OBJECTIVES: (May be submitted as a separate document)

Please see attached document

7. COURSE OUTLINE (May be submitted as a separate document)

Please see attached document

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

Please see attached document

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

Please see attached document

10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Exam, Homework Assignments and Projects

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

Not applicable

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

Please see attached document

# Request for Graduate Course Addition - Page 5

Please insert in the text box below your course summary information for the Graduate Council agenda. Please enter the information exactly in this way (including headings):

Department:
Course Number and Title:
Catalog Description:
Prerequisites:
First Term Offered:
Credit Hours:

Department: Computer Science
Course Number and Title: CYBR 530 Cyber Security Policies and Management
Catalog Description: The course covers risk management, integrating continuous monitoring and real-time security solutions with information systems to improve situational awareness and deployment of countermeasures.
Prerequisites: None
First Term Offered: Spring 2019
Credit Hours: 3

## BIBLIOGRAPHY

"Cyber Security Management: A Governance, Risk and Compliance Framework", 1st Edition, by Peter Trim, and Yang-Im Lee; Routledge 1 edition (September 10, 2014); ISBN-10: 1472432096, ISBN-13: 978-1472432094

"How to Measure Anything in Cybersecurity Risk", 1st Edition, by Douglas Hubbard, Richard Seiersen; Wiley; 1 edition (July 25, 2016); ISBN-10: 1119085292, ISBN-13: 978-1119085294

"Ethics and Cyber Warfare: The Quest for Responsible Security in the Age of Digital Warfare", 1st Edition, by George Lucas; Oxford University Press; 1 edition (December 13, 2016); ISBN-10: 0190276525, ISBN-13: 978-0190276522

# CYBR 530 Cybersecurity Policies and Management

| | |
|---|---|
| Course Title/Number | Cybersecurity Policies and Management/530 |
| Semester/Year | Spring/2019 |
| Days/Time | TBD |
| Location | TBD |
| Instructor | Dr. Wook-Sung Yoo |
| Office | WAEC 3101A |
| Phone | X5452 |
| E-Mail | yoow@marshall.edu |
| Office Hours | TBD |
| University Policies | By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to www.marshall.edu/academic-affairs/policies/. Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative Action/Sexual Harassment |

## Course Description

The course covers risk management, integrating continuous monitoring and real-time security solutions with information systems to improve situational awareness and deployment of countermeasures.

## Course Student Learning Outcomes

| Course Student Learning Outcomes | How students will practice each outcome in this Course | How student achievement of each outcome will be assessed in this Course |
|---|---|---|
| List the applicable laws and policies related to cyber defense | Group discussions | Graded homework assignments |
| Evaluate and assess the use of technology to support cyber security goals and objectives | Homework Assignments,<br>Group discussions | Graded exam problems<br>Graded homework assignments |
| Formulate, update, and communicate short- and long-term organizational cyber security strategies and policies | Homework,<br>In class examples,<br>Group discussions | Graded exam problems<br>Graded homework assignments |

## Required Texts, Additional Reading, and Other Materials

**Required Text**

Peter Trim, Yang-Im Lee, Cyber Security Management: A Governance, Risk and Compliance Framework; Routledge, 1 edition (September 10, 2014); ISBN-10: 1472432096, ISBN-13: 978-1472432094

**Other Materials**

Douglas Hubbard, Richard Seiersen, How to Measure Anything in Cybersecurity Risk; Wiley; 1 edition (July 25, 2016); ISBN-10: 1119085292, ISBN-13: 978-1119085294

George Lucas, Ethics and Cyber Warfare: The Quest for Responsible Security in the Age of Digital Warfare; Oxford University Press; 1 edition (December 13, 2016); ISBN-10: 0190276525, ISBN-13: 978-0190276522

## Course Requirements / Due Dates

**Midterm Examinations**

Midterm exam is during regular class hours in Week 8.

**Homework Assignments**

Homework problems will be assigned bi-weekly (starting from week 2)

## Attendance Policy

Missing more than 3 classes will result in a 10 points reduction from your final grade.

## Grading Policy

| Activity | Points |
|---|---|
| Attendance | 10 |
| Midterm Exam | 30 |
| Homework Assignments | 30 |
| Final Exam | 30 |
| Total | 100 |

Course grades are awarded based on the following scheme:

| Score | Letter Grade |
|---|---|
| >= 90 | A |
| >= 80 & < 90 | B |
| >= 70 & < 80 | C |
| >= 60 & < 70 | D |
| < 60 | F |

## Course Schedule

This is the list of topics. This could be adjusted as the semester progresses at the discretion of the instructor. Lecture slides will be posted to MUOnline.

| Week | Schedule |
|---|---|
| 1 | Introduction to cyberspace |
| 2 | Computer security act |
| 3 | Laws and authorities |
| 4 | Cybersecurity governance |
| 5 | Vulnerabilities and risks |
| 6 | Foundations in cybersecurity management |
| 7 | Threat Identification |
| 8 | Midterm Exam |
| 9 | Vulnerability assessment |
| 10 | Cybersecurity program development |
| 11 | Incident awareness and response |
| 12 | Cyber strategy development |
| 13 | Cybersecurity with mobile projects |
| 14 | Disaster recovery and planning |
| 15 | Case study and simulation |