Subj: SY110 COURSE POLICY - AY2020 FALL

Ref: (a) ACDEANINST 1531.58, Administration of Academic Programs

- (b) ACDEANINST 1531.64, Academic Accountability
- (c) CYBSCIINST 3120.32, Cyber Science Department Standard Organization and Regulations Manual
- (d) ACDEANNOTE 1531, Academic Scheduling and Start of Semester Items

Encl: (1) SY110 Collaboration Policy

1. <u>Purpose</u>. Per references (a) through (d), the following comprises the course policies for SY110 – Introduction to Cyber Security – Technical Foundations, AY2020 Fall term.

WARNING: As a student in this class, you will learn concepts and gain experience with tools that could be used unethically. DO NOT use knowledge or experience gained for unethical purposes. You MAY NOT use tools and techniques learned in this class to violate USNA policy, or any other government restrictions on information system use. You should never employ offensive cyber operations on any information system without the express written consent of the information system owner or legal authority.

Note: Any of the topics, tactics, or techniques discussed in SY110 may be used for research purposes.

- 2. General Information.
 - a. Course.

Course: SY110 – Introduction to Cyber Security – Technical Foundations

Credits: 2-2-3

Term: AY2020 Fall Prerequisites: None

- b. You are required to bring your government issued laptop sufficiently charged or additionally bring your laptop battery charger to every class meeting. You will make heavy use of your laptop in most class meetings. You will be marked as late if you have to return to your room to get your laptop or your laptop battery charger.
- 3. <u>Course Description</u>. This course is a hands-on lab-based course that provides a technically focused introduction to the principles behind the use, function, and operation of computers, networks, and applications with an emphasis on cyber security.

- 4. <u>Course Learning Outcomes</u>. Through this course and your collective efforts you will be able to:
 - Explain why the Cyber Domain is important to the Navy, a Junior Officer, and an individual.
 - Describe computers, operating systems, networks, the Internet and the Web with respect to: digital representations of information, their basic operation and associated tools, and the underlying architectures and protocols and how they may be vulnerable to attack.
 - Analyze and explain the output of programs and the results of shell commands and gain an understanding of why certain actions are permitted or not in an information system.
 - Identify and describe the principles and desired properties of defensible information systems, and the techniques and tools that are used to provide them. Explain representative attacks and their prevention and mitigation measures.
 - Explain, differentiate, and perform basic actions related to reconnaissance, attack, defense, and forensics of information systems.
 - Describe cyber domain scenarios in which user decisions affect security, identifying the user's versus the technology's responsibilities, and explain the consequences of potential user actions in terms of risk and the tradeoff between services and security.

5. Course Resources.

- a. You will achieve the course outcomes through sustained, active participation in the course activities, course discussions, and course assignments. This is a hands-on course that requires your active participation in the learning process. Your individual and group success in this course is highly dependent on your individual active participation in the course activities.
- b. Course Website. The course website will be the primary method you will access course material outside of class. The course website is on the Naval Academy Intranet at http://courses.cyber.usna.edu/SY110/index.html. Student notes will be made available via the course website.

c. Academic Resources.

- i. XS110 Supplemental Instruction to SY110. The Center for Academic Excellence offers XS110, a 1-hour (0-credit) extra study session for SY110. Supplemental instruction courses do not have an associated grade with them, and can be added or dropped anytime during the semester. The XS110 schedule is available in MIDS. Ask your Academic Advisor or Instructor for further information.
- ii. Midshipmen Group Study Program (MGSP). MGSP is an evening study program run by Midshipmen for Midshipmen. There is no requirement to make an appointment to attend an MGSP session, you will be asked to sign in at MGSP sessions. The SY110 MGSP schedule will be available under the *Resources* section of the course website. Ask your Instructor for further information.
- iii. Extra Instruction (EI). If you are struggling with course material or want to dig deeper into the course material, seek extra instruction. See your Instructor for their office hours.

- 6. <u>Grading</u>. Every effort will be made to ensure prompt and sufficient feedback on graded material. Feedback and grades will be clearly identified on returned work.
- a. Assignments: In class and outside of class there will be times that you will be authorized to work (collaborate) in groups and other times that you will not be authorized to work in groups; studying and discussing the course material in groups is recommended.
- i. Homework Assignments. In general you will be allowed to discuss topics and concepts on homework assignments with others (see Section 7 below). Use discussions to further your understanding of the material. Homework assignments in this course will primarily be used as a part of your learning process, there will be a small assessment component of homework assignments. Homework assignments will be made available through the course website or in Blackboard, and are due at the beginning of the class period after being assigned, unless otherwise stated. Homework assignments shall not be discussed with other students during the ten minutes prior to class.
- ii. Laboratory Assignments. In general you will be allowed to discuss topics and concepts on lab assignments with other students in the course (see Section 7 below). Use discussions to further your understanding of the material. Completing the lab activities and assignments is not optional. If you are going to miss a lab activity, you need to discuss how to make up the activity with your Instructor. The culmination labs (Cyber Reconnaissance, Cyber Attack, and Cyber Defense) are large group activities and should not be missed; you shall schedule any appointments around those dates (see the course calendar).
- iii. Examinations. You will demonstrate your knowledge and understanding of the material through examinations, all exams will be individual effort. The final exam will be cumulative; the 12-Week exam will focus on material from Weeks 5-10, but will require an understanding of material from the first four weeks. On the final exam you must demonstrate knowledge at least at the 50% level to pass the course regardless of your other grades in the course.
- iv. *Case Study*. The semester will culminate in a cyber case study. The case that you chose for this assignment should have occurred (or have been discovered) in the last 12 months. If you have a case study outside of the 12 month period your individual instructor can approve on a case by case basis. The case study is a significant portion of your grade and will include two elements: a written essay and presentation (with a slide deck).
- iv. *Instructor Option*. Your instructor will determine what work is required by you to earn credit for the Instructor Option portion of your grade. Examples may include, but are not limited to: quizzes, muddy point activities, presentations, written assignments, in-class participation, increase homework grade weighting, increase lab grade weighting, increase exam grade weighting.

b. Weighting:

Category/ Grading Period	6-Week	12-Week	Overall
6-Week Exam	60%	15%	15%
12-Week Exam	-	45%	15%
Final Exam	₩	_	30%
Homework	20%	20%	15%
Laboratory	15%	15%	15%
Case Study	¥ 4	-	5%
Instructor Option	5%	5%	5%

Note: Homework, Laboratory, and Instructor Option grades will be cumulative; for example the 12-week grading period homework grade will include homework assignments from the beginning of the course through the 12-week grading period.

- c. Late Policy. Late work will not be accepted for credit (a 0 will be recorded in the grade book), but will be reviewed and returned with feedback provided.
- d. Absences. As a leader you are expected to look ahead, identify issues, and propose solutions. It is your responsibility to discuss your plans to make up course material with your Instructor at least one week prior to a planned absence (MO, medical/dental appointment, etc.). If an unplanned absence occurs at the last minute you shall contact your Instructor (likely via email) to arrange plans to make up course material as soon as possible. A plan approved by your Instructor overrides the Late Policy. Failing to discuss plans to make up material prior to a planned absence or by the day you return from an unplanned absence will result in the missed assignments being treated as late. Effort will be made to make the requisite course material available to you before a planned absence to allow you to complete assignments prior to your departure to support you not falling behind academically.
- 7. Honor Policy. Enclosure (1) contains the definition of the different collaboration policies that will be used to specify what actions are authorized and unauthorized. Unless stated otherwise on a specific assignment, the following collaboration policies shall apply to the assignments of that type. You are charged with understanding and executing the honor policy, and seeking clarification at any time if there is a potential misconception; if in doubt, seek clarification from your Instructor.

Assignment Type	Default Collaboration Policy	
Homework	CP-2 _i	
Laboratory	CP-5 _i	
Exam	CP-0 _i	
Instructor Option	Set by Instructor	

Note: Copying will never be considered as collaboration or discussion; copying will always be considered as a violation of the honor policy.

a. Authorized Resources. XS110, SY110 MGSP, and EI will always be considered an authorized resource, and shall be documented on assignments as appropriate.

8. Other.

- a. Laboratory Decorum. The course will typically be held in a laboratory utilizing your government issued laptop. Beverages are permitted in classrooms and laboratories provided they are in closed containers. No food or smokeless tobacco products are permitted in classrooms or laboratories. You shall attend to personal matters before the start of class.
 - b. Section Leader. The Section Leader will:
 - Call the class to attention at the beginning and end of each class session, and report muster results (per reference (b));
 - In the event the Instructor is not present five minutes after the start of a class session (per reference (b)), report to the Mathematics and Science Division front office (MI380) and report that your SY110 Instructor is not present;
 - Assist the Instructor as directed by the Instructor.
 - Act as Section liaison to the Instructor.
 - c. Assistant Section Leader. The Assistant Section Leader will:
 - Assist the Section Leader as directed by the Section Leader;
 - Act as Section Leader in the absence of the Section Leader (per reference (b)).

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