SY205 Course Policy

References

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 1531.2, Academic Scheduling and Start of Semester Items

Enclosures

1. SY205 Collaboration Policy
2. SY205 Course Syllabus

Purpose

Per references (a–d), the following comprises the course policies for SY205 - Networking: Operations and Analysis, 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 or 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 this, previous, or current Cyber Operations (SY) courses may be used for research purposes.

General Information

Course:	SY205 - Networking: Operations and Analysis
Credits:	0 (recitation) - 4 (lab) - 2 (credits)
Term:	AY2020 Fall
Prerequisites:	SY110
Co-requisites:	Introductory Programming Course (one of: SY201, IC210, SI204, ES200)

Sections:	3401
Instructor:	LCDR Hoffmeister

Username:	`hoffmeis`
Office:	Leahy 100 (LE100)

Contact instructor for office hours.

Course Description

Students will learn and practice information system networking through hands on analysis. Students will utilize various tools to capture and analyze network traffic. Students will build wired networks, and set up and configure hardware and software. Students explore the OSI and TCP/IP stacks by analyzing protocols in operation, focusing on the Data Link Layer and up. Students are introduced to number systems, and command line interfaces.

Discipline Indicators

The knowledge and experience you gain through this course support you achieving the following Cyber Operations major Discipline Indicators:

- Supported and Assessed:
    - Networks
    - Systems
    - Design
    - Evaluation
    - Defensive Cyber Operations
    - Offensive Cyber Operations
- Supported:
    - Analysis
    - Integrity
    - Availability
    - Adversarial Thinking

Course Learning Outcomes

Through this course and your collective efforts you will be able to:

- Describe the models used in networking
- Describe the technologies used in networking
- Build wired networks

- Capture and analyze network communications
- Operate in networks architected for security
- Conduct operations from a command line interface

Course Resources

You. You will achieve the course objectives 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 active participation in the course activities.

Textbooks. There are two required textbooks for SY205; you may use either a print (hardcover or paperback) or electronic version of the textbooks.

- Kurose, James, and Keith Ross. *Computer Networking: A Top-Down Approach*. 7th ed., Pearson, 2016. [Required]
- Robbins, Arnold. *bash Pocket Reference*. 2nd ed., O'Reilly, 2016. [Required]

Course Website. The course website will be the primary way you will access course material. The course website is on the Naval Academy intranet at: `https://courses.cyber.usna.edu/SY205/`.

Extra Instruction. If you are struggling with course material or want to dig deeper into the course material, seek extra instruction. See your instructor for office hours.

Grading

Every effort will be made to ensure prompt and sufficient feedback on graded material. Feedback and grades will be clearly identified on returned work.

Assignments. This is a hands-on lab course, you will learn and demonstrate your learning through assignments; there is no distinction between *homework* and *lab* assignments, as there will be very few traditional homework assignments. There will be a large number of assignments in this course; expect at least one assignment a week. This is not a programming course, the assignments will not be programming assignments, but will require you to use either the command line or other software. You will be given time in class to work on the assignments, and will need to complete assignments outside of class. In general the assignments will require group collaboration but each student will turn in their own submission.

In general you will be allowed to discuss topics and concepts on assignments with others (see *Honor Policy* below). Use discussions to further your understanding of the material. Assignments in this course will primarily be used as a part of your learning process, there will be an assessment component of assignments. Assignments will be made available through the course website and are due at the beginning of the class period after in class work ends, for many assignments you will be given two class meetings to work on the assignment in class; i.e. you will typically have a week to complete assignments. Assignments shall not be worked on during the ten minutes prior to the start of class meeting they are due.

Project. There will be a single project towards the end of the course. Like assignments the project will be a hands-on activity. Similarly, you will be given time in class to work on the project, but will need to work outside of class to complete the project. The project will be individual effort; i.e. no group collaboration.

Quizzes. There will be periodic quizzes covering concepts from reading assignments, course discussions, and assignments. Quizzes will be given at the beginning of Thursdays, and will take approximately ten minutes.

Exams. You will demonstrate your knowledge and understanding of the material through exams, all exams will be individual effort. The 12-Week exam will focus on material since the 6-Week exam, but will require an understanding of material covered on the 6-Week exam; the final exam will be cumulative.

Instructor Option. Your instructor will determine what work will be required of you to earn credit for the Instructor Option portion of your grade. Examples include, but are not limited to: class participation, written assignments, increase grade weightings.

Weighting.

Category/Grading Period	6-Week	12-Week	End of Course
6-Week Exam	40%	10%	10%
12-Week Exam	-	30%	10%
Final Exam	-	-	20%
Quizzes	15%	15%	15%
Assignments	40%	40%	30%
Project	-	-	10%
Instructor Option	5%	5%	5%

Late Policy. Assignments will be accepted up to one calendar day late, not one class meeting day late. After a calendar day late assignments will not be accepted for credit, but will be reviewed and returned with feedback provided. Late assignments can be turned into your instructor's office; late assignments will not be accepted electronically. Late assignments will be assessed a 10% point deduction.

Absences. As a leader you are expected to look ahead, identify issues, and propose solutions. If you know you are going to miss turning in an assignment on time due to an MO, but not miss the class days associated with the assignment, then you shall turn in the assignment to your instructor early. If you know you are going to miss a class day associated with an assignment, then discuss your planned absence with your instructor prior to missing class. If an unplanned absence occurs at the last minute you shall contact your instructor to arrange plans to make up course material as soon as possible. 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.

Note: Academic buildings are accessible on the weekends.

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 Permissions
Exams	CP-000_{i}
Quizzes	CP-000_{i}
Assignments	CP-311_{i}
Project	CP-011_{i}
Instructor Option	(set by instructor on assignment)

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

Authorized Resources. See the course website *Resources* webpage for the current list of resources that are authorized for referencing during course activities per the associated collaboration policy.

Unauthorized Resources. See the course website *Resources* webpage for the current list of resources that are unauthorized for referencing during course activities per the associated collaboration policy. Use of unauthorized resources will be considered a violation of the course honor policy.

Other

Laboratory Decorum. The course will typically be held in a computer laboratory utilizing government equipment. 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.

Making head calls during class will be allowed once we are in the assignment portion of the class, but realize that you will be holding up your group's progress on the assignment while you are not actively participating.

Section Leader. The Section Leader will:

- Call the class to attention at the beginning and end of each class session, and verbally report muster results (per reference (b)).
- Report to the Math and Science Division front office (MI380) in the event the instructor is not present within five minutes of the start of a class session (per reference (b)).
- Assist the instructor as directed by the instructor.
- As as section liaison to the instructor.

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)).

[Signed]	[Signed]
C. W. Hoffmeister	T. L. Emmersen
LCDR USN	Chair, Cyber Science Department

SY205 Collaboration Policy

References

a. SY205 Course Policy

Purpose

Per reference (a), the following defines the collaboration levels that will be used in SY205. 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.

Collaboration Terminology

Our learning is enhanced through activities; some learning activities will be individual effort, while other learning activities will allow collaboration. Copying will never be considered as collaboration; copying will always be considered as a violation of the honor policy. Discussion with a course instructor is always allowed.

The terms *discuss*, *collaborate*, and *copy* each have specific definitions in the English language. In regards to the collaboration policy the following definitions shall apply.

discuss (v)
To communicate via verbal or non-verbal means about a concept or topic.
Discuss does not mean communicating about a specific solution to a problem.
collaborate (v)
To split up an assignment into parts in a manner where individuals work on separate parts independently, and share results.
To work on a portion of assignment cooperatively.
copy (v)
To reproduce via electronic or non-electronic means the work of another individual, besides an instructor of MGPS Leader.
To knowingly allow your work to be copied via electronic or non-electronic means.

Collaboration Permissions

There are three sets of students that collaboration permissions will be set for: group, course, institution. Additionally, there are three collaboration permissions: discuss, share data/partial collaboration, full collaboration. The different student sets may have different collaboration permissions for an assignment.

Student Sets.

group
Students within the same group for the associated assignment.
A group is typically comprised of students within the same section of the course.
Collaboration permissions for the group correspond to the left most digit in the collaboration permission value.

course
Students from any section that are taking the course in the same academic term.
Collaboration permissions for the course correspond to the middle digit in the collaboration permission value.
institution
Any student currently enrolled at the academic institution; this does not include alumni of the institution.
Collaboration permissions for the institution correspond to the right most digit in the collaboration permission value.

Permissions.

none (0)
No discussion, or collaboration is allowed on the assignment.
Discussion with an instructor is always allowed and encouraged.
discuss (1)
Discussion of the assignment with the set of students is allowed.
Note: Discussion of a topic shall not lead to the same answer for a question; students shall independently answer questions — learn through thinking and doing, not copying.
share data (2)
Sharing of data, and collaborating on data collection for the assignment with the set of students is allowed.
cooperative collaboration (4)
Dividing up and working on the assignment with the set of students is allowed.

Collaboration permissions will be written in a three digit octal format; e.g. CP-310. The left most octal digit, 3 in the example, corresponds to the collaboration allowed within the group. If the assignment is not a group assignment, then a 0 will be listed for group permissions.

The middle octal digit, 1 in the example, corresponds to the collaboration allowed within the course. The right most octal digit, 0 in the example, corresponds to the collaboration allowed within the institution.

Permissions within a set of students may be combined, added together. For example, a permission of 3 means that you may discuss (1) and share data (2) within the set of students, 1 + 2 = 3. A higher digit value means more collaboration within that set of students; a lower digit value means less collaboration within that set of students.

Assignment Submission. An assignment may either be submitted individually or as a single submission per group of students. A subscript $_i$ indicates that the assignment is an individual submission; i.e. each student submits their own copy of the assignment. A subscript $_g$ indicates that the assignment is a group submission; i.e. students within a group submit a single copy of the assignment as a group.