

**CS 320: Internetworking, Fall 2021**  
**Department of Computer Sciences and Electrical Engineering**  
**Marshall University**

**Course Information:**

- Instructor: Dr. Cong Pu (Ph.D., Assistant Professor)
- Office: Weisberg Applied Engineering Complex (WAEC) 3109
- Office Phone: (304) 696-6204
- Email: [puc@marshall.edu](mailto:puc@marshall.edu)
- Course meetings: Mon/Wed, 1:00 p.m. – 2:15 p.m., WAEC 3245
- Virtual office hours:
  - Important: All office hours will be held virtually during the COVID-19 pandemic.
  - Tentative office hours:
    - Mon, 8:00 a.m. – 11:30 a.m., 2:30 p.m. – 4:00 p.m.
    - Wed, 8:00 a.m. – 11:30 a.m., 2:30 p.m. – 4:00 p.m.
    - Or by appointment through email.
  - Students are expected to communicate with instructor to set up video meetings via Microsoft Teams.
- Course web page: MU Online (Blackboard) <http://www.marshall.edu/muonline/>.
  - It is important to visit MU Online (Blackboard) regularly for up-to-date course information.

**COVID-19 Related Information: From University**

- Marshall's official COVID-19 protocols are online at <https://www.marshall.edu/coronavirus>. Policies and protocols may change over time as we respond to changing conditions. The website will always contain the most recent information.

- Key policies at the start of the Fall 2021 semester include the following:

- **Masks are required for everyone in all public indoor spaces on university property, regardless of one's vaccination status.** These spaces include classrooms, labs, office suites, hallways, lobbies, stairwells, etc. Instructors may choose to teach either while wearing a mask or face shield or while standing behind the plexiglass barrier in the classroom.



- **In order to remain in in-person classes, students must sign the Marshall Return to Campus Student Agreement** that outlines public health expectations and University COVID-19 policies: <https://bit.ly/2VP3Naa>.
- **In order to remain in in-person classes for the Fall 2021 semester, students must submit their current vaccination status** in the online Student Vaccination Registry here: <https://mubert.marshall.edu/vaccinerecord.php>. The registry offers several possible responses, including an option to not disclose vaccination status.

- **Students will disinfect their personal workspaces and virtual learning hubs with disinfectant wipes provided nearby.**
- **Students who are unable to follow University requirements due to a disability should seek reasonable accommodations from the Office of Disability Services (ODS) during the first week of class.**

**Course Description: From Catalog**

- Principles and issues in interconnecting multiple physical networks into a coordinated system, operation of Internet protocols in the interconnected environment, and design of applications to operate in this environment. (Concurrent PR: MTH 229; PR: CS 210)

**Course Student Learning Outcomes:** The table below shows the following relationships: How each student learning outcomes will be practiced and accessed in the course.

<b>Course Student Learning Outcomes</b>	<b>How students will practice each outcome in this course</b>	<b>How student achievement of each outcome will be assessed in this course</b>
Students will be able to understand the structure of the OSI reference model and its significance. <b>(a, e)</b>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Example discussion</li> <li>• In-class exercise</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment</li> <li>• Exam</li> </ul>
Students will be able to demonstrate the role of TCP & UDP as a transport layer and its implementation. <b>(a, b, g)</b>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Example discussion</li> <li>• In-class exercise</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment</li> <li>• Exam</li> </ul>
Students will be able to operate network tools to understand network programming. <b>(c, e, g)</b>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Example discussion</li> <li>• In-class exercise</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment</li> <li>• Exam</li> </ul>

ABET a-i: <http://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-computing-programs-2017-2018/#outcomes>

**Preferred Communication Method and Expected Response Time:**

- You can always meet with instructor via Microsoft Teams during virtual office hours, no appointment is required.
- Outside virtual office hours, 6 hours advance notice is required when scheduling an appointment. If you ask instructor to meet you on Microsoft Teams immediately, the answer will probably be “No”.
- You can generally expect an email response within 6 hours. If you do not get a response within 6 hours, please forward your previous email to instructor.
- You can generally expect the feedback on assignment and exam in one week after submission. If you do not receive the feedback in two weeks, please send an email to instructor.

**Required Textbooks, Additional Reading, and Other Materials:**

- This course uses digital course materials designed using Open Educational Resources (OER), high-quality, openly licensed educational materials, rather than a traditional textbook. You can access all readings, materials, videos, and other activities through course web page. **Thus, students are not required / do not need to buy textbooks.**

### Course Requirements and Grading Policy:

- **1<sup>st</sup> Exam: 15%**, Sep 27 (Monday), 1:00 p.m. – 2:15 p.m., MU Online (Blackboard), WAEC 3245
- **2<sup>nd</sup> Exam: 15%**, Oct 27 (Wednesday), 1:00 p.m. – 2:15 p.m., MU Online (Blackboard), WAEC 3245
- **3<sup>rd</sup> Exam: 15%**, Dec 10 (Friday), 12:45 p.m. – 2:45 p.m., MU Online (Blackboard), WAEC 3245
  - All three (non-cumulative) exams are computer-based exams.
  - All three exams should be taken in the classroom (WAEC 3245). However, you can start exam wherever you want during exam time and submit on Blackboard.
  - ~~Closed book and notes; Internet resources are not allowed.~~
  - **Open book and notes; Internet resources are allowed.**
  - There will be NO make-up for missing exam. Only university excused absences with appropriate and official DOCUMENTATION will be accepted for make-up exam. Please contact Student Affairs (<https://www.marshall.edu/student-affairs/>) for university excused absence documentation first, and then schedule make-up exam with instructor.
    - The make-up exam must be taken within two days after the scheduled exam.
  - If you take a conflict exam, you must talk to instructor and provide a valid document at least two weeks before the scheduled exam.
    - The conflict exam must be taken within two days after the scheduled exam.
- **Assignment: 55%**
  - There are two types of assignment: lab assignment and writing assignment.
  - Assignment should be SUBMITTED on Blackboard before Due Date. *Other submission methods* (i.e., email) *will NOT be accepted*.
  - LATE Submission will NOT Be Accepted on Blackboard since the submission link will be closed automatically after due date.
  - There will be NO re-submission for missing assignment. Only university excused absences with appropriate and official DOCUMENTATION will be accepted for assignment re-submission\*. Please contact Student Affairs (<https://www.marshall.edu/student-affairs/>) for university excused absence documentation first, and then contact instructor for re-submission.
    - \*The re-submission will be provided *if and only if* the duration of university excused absences is **equal to or longer than** the half of the time limit on the assignment.
  - Each student has unlimited submission attempts on Blackboard before due date. However, instructor only grades the final submission attempt.
  - There will be NO re-submission if the student submitted the wrong assignment.
- **In-class Review Exercise: 0%**
  - All in-class review exercises are computer-based exercises. You will work on review exercises at the beginning or end of class meeting and submit on Blackboard.
  - All in-class review exercises are discussed in the class after submission.
- **Plagiarism:**
  - Plagiarism or cheating will not be tolerated in the class.

- 1<sup>st</sup> plagiarism will result in zero point in the suspected work.
  - 2<sup>nd</sup> plagiarism will result in immediate dismissal (F grade).
- All grades will be posted on Blackboard:
  - *You are highly suggested to check your grade on Blackboard frequently and notify instructor immediately if there is any grading error.*
  - Mid-term grade will be posted around October 11 (Monday)
    - October 22 (Friday), last day to drop an individual course.
    - Fall 2021 calendar: <https://www.marshall.edu/academic-calendar/fall-2021-semester/>
- Grade Scale:
  - Actual points received in each category should be converted into category percentage.
  - For example, if you got 40/50 for 5 assignments, the percentage of assignment category will be  $(40 / 50) * 40 = 32$  (%).
  - A (100 - 90), B (89 - 80), C (79 - 70), D (69 - 60), and F (59 - 0)
- Excuses
  - Because there is a degree of flexibility in completing items, it is your responsibility to keep track of dates and give yourself enough time for completion. If you wait until the last minute, there is no one to blame but yourself. With that said, I am also not heartless. If there is something that occurs which prevents your access to the course for a significant length of time (e.g., serious illness, death in the family, or personal tragedy) please contact me as soon as possible and we may be able to work something out. In this case, I will need verification, and it will be left to my discretion on its acceptability.

#### **Attendance and Classroom Policy:**

- Students are expected to attend punctually all class meetings, from the beginning of the semester until the end of the semester.
- If a student needs self-quarantine for 14 days due to COVID-19, make-up will be provided for exam or assignment that is due during self-quarantine period when the self-quarantine is over.
- If a student misses a class without university excused absence documentation, the student should not expect individualized instruction on what was missed. This will be effective from the beginning of semester.
- Students are expected to assist in maintaining a classroom environment that is conducive to learning. In order to assure that all students have the opportunity to gain from time spent in class, unless otherwise approved by the instructor, students are prohibited from engaging in any other form of distraction. Inappropriate behavior in the classroom shall result, minimally, in a request to leave class.

**Marshall University Policy:** By enrolling in this course, you agree to the University Policies. Please read the full text of each policy (listed below) by going to Academic Affairs: Marshall University Policies. (URL: <http://www.marshall.edu/academic-affairs/policies/>)

- Academic Dishonesty Policy
- Academic Dismissal Policy
- Academic Forgiveness Policy
- Academic Probation and Suspension Policy

- Affirmative Action Policy
- Dead Week Policy
- D/F Repeat Rule
- Excused Absence Policy for Undergraduates
- Inclement Weather Policy
- Sexual Harassment Policy
- Students with Disabilities (Policies and Procedures)
- University Computing Services Acceptable Use Policy

**Course Schedule and Important Dates:** Topics and/or dates may be changed during the semester at the instructor's discretion because of scheduling issues, developments in the discipline, or other contingencies.

- Aug 23: Welcome & Course Introduction & Computer Networks & The Internet
- Aug 25: Computer Networks & The Internet
- Aug 30: Computer Networks & The Internet
- Sep 01: Computer Networks & The Internet
- **Sep 06: Labor Day Holiday – University Closed**
- Sep 08: \*Lab #1
- Sep 13: Application Layer
- Sep 15: Application Layer
- Sep 20: Application Layer
- Sep 22: \*Lab #2
- **Sep 27: 1<sup>st</sup> Exam. Monday, 1:00 p.m. – 2:15 p.m.**
- Sep 29: Transport Layer
- Oct 04: Transport Layer
- Oct 06: Transport Layer
- Oct 11: Transport Layer
- Oct 13: \*Lab #3
- Oct 18: Network Layer
- Oct 20: Network Layer
- Oct 25: Network Layer
- **Oct 27: 2<sup>nd</sup> Exam. Wednesday, 1:00 p.m. – 2:15 p.m.**
- Nov 01: Link Layer and Local Area Networks
- Nov 03: Link Layer and Local Area Networks
- Nov 08: Link Layer and Local Area Networks
- Nov 10: Link Layer and Local Area Networks
- Nov 15: \*Lab #4
- Nov 17: Wireless and Mobile Networks
- Nov 22: **Thanksgiving Break – Classes Dismissed**
- Nov 24: **Thanksgiving Break – Classes Dismissed**
- Nov 29: “Dead Week” – Self Review; No Class
- Dec 01: “Dead Week” – Self Review; No Class
- **Dec 10: 3<sup>rd</sup> Exam. Friday, 12:45 p.m. – 2:45 p.m.**

\*Students can decide where (classroom, home, etc.) to work on the lab assignment. Instructor will come to the classroom at the beginning of class. However, if no students show up in the first five minutes, instructor

will leave the classroom. Students need to communicate with instructor for lab questions through emails or video meetings.