

Course Information v012919

Course Title: INST 346 (Section 0102)

Course: Spring 2019

Course Format: Asynchronous Online

Faculty: Dr. Dennis C. Frezzo

Contact Information: Canvas email function or dfrezzo@umd.edu

Teaching Assistant (TA): Mike Walker (mwalker1380@gmail.com)

AMPs (Academic Peer Mentor): TBA

Class time and location: Section 0102 – asynchronous online (through ELMS)

Required Textbook(s)/Resources/Equipment:

- The Architecture of Computer Hardware, Systems Software, and Networking (5th Ed.) by Irv Englander (ISBN: 9781118322635)
- Laptop computer and Internet Connection to ELMS and other services for labs and activities
- Optional but highly recommended: Smartphone
- Completely optional but one way to get more out of the course: Raspberry Pi Single Board Computer Kit (details TBD)

Course Schedule and Documents: The course schedule, reading plan, assignment instructions and rubrics, research resources, and other helpful documents will be available in ELMS.

Office Hours: The professor, TA, and academic peer mentors will hold weekly office hours. These hours and any changes to these hours will be posted in ELMS. Dr. Frezzo's open, online office hours for the Spring 2019 term are Mondays 10:00 AM to Noon, and Fridays 9:30 AM to 10:00 AM. Additional times on Mondays may be scheduled by appointment. TA Mike Walker's in-person office hours will be Tuesdays and Wednesdays 11:00 AM to Noon. Office hours start the week of February 4.

Course Description and Objectives

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and 1 course with a minimum grade of C- from (INST326, CMSC131); and minimum grade of C- in INST327.

Restriction: Must be in Information Science program; and permission of INFO-College of Information Studies.

Credit only granted for: INST346 or BMGT405.

Course Description:

Examines the basic concepts of computer hardware, systems software, networking, client/server architectures, cloud computing, distributed systems, and high performance computing as applied to information rich domains. Technology and architectures will be discussed within the contexts of solving social issues, supporting science, and conducting business operations. Current computing topics such as web environments, IoT, security, management, and policy will also be reviewed.

Student Learning Outcomes:

Upon successful completion of the course, students will be able to:

- Articulate major hardware, software and networking concepts and components that comprise current digital information infrastructure;
- Deploy a virtual system as a part of cloud architecture in a client/server environment;
- Evaluate hardware, software, and network solutions for organizational needs;
- Identify emerging threats to information security and develop effective approaches to addressing those threats;
- Construct an infrastructure and architecture proposal to solve a real-world problem related to solving social issues, supporting science, or conducting business operations;
- Implement a distributed computing solution that can be applied to an IoT, big data or computationally demanding organizational problem.
- Analyze and create models of end-to-end causality in networked systems

Course Activities:

- Textbook Chapters: It is expected that you will read and study assigned textbook chapters prior to responding to online assignments. Weekly online participation is expected, comparable to the time you would spend if this were a face-to-face course.
- Quizzes: Online quizzes will test your comprehension of readings, video lectures, labs, and activities.
- Lab Exercises and Other Activities: Labs and activities will be done at home, or if indicated, with classmates, with documentation submitted via Canvas.
- Homework Assignments: Homework will be assigned throughout the semester. This work should be completed and submitted via Canvas by the due date. Careful attention should be given to the instructions for each assignment. Some of the

homework will be individual work and some of the work will be team-based.

Read all instructions for all assignments carefully.

- Team project details will be forthcoming.
- Mid-term Exam: A take-home mid-term exam will be administered to test students' understanding of course content and skills learned in the class. The exam will cover all material covered prior to the mid-term exam.
- Final Exam: A take-home final exam will be administered to test students' understanding of the course content and skills studied in the entire course. The exam may contain conceptual questions as well as practical and applied questions.

Course Grades

Grading Your grade is determined by your performance on the assessment components in the course. All assessment scores will be posted on Canvas. If you would like to discuss your grade, or have questions about how something was scored, please schedule a time with the course TA. Grade disputes must be turned in within one week of receiving the graded work. They must be submitted as a written document (via email to the TA and professor) in which you indicate the graded work, an explanation of what you believe was mis-graded, and an explanation for why you think it should be given a different score. For any re-grade request, the entire assignment will be regarded, and your score may go up or down.

Work must be submitted online, on time, for full credit. Work will be accepted for 1 up to one week late for half credit. After that time, no credit can be earned. To avoid unexpected complications, complete and submit your work well in advance of the due dates and times.

Scores on each component will be combined to produce a single overall score for each student as follows:

Component	Percentage
Quizzes	10%
Documented Lab Exercises	25%
Homework Assignments and Discussions	25%
Team Project	15%
Mid-term Exam	10%

Final Exam	15%
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Letter grades will be assigned using the following categories:

98-100	A+		87-89	B+		77-79	C+		67-69	D+	
93-97	A		83-86	B-		73-76	C		63-66	D-	
90-92	A-		80-82	B		70-72	C-		60-62	D-	
									0-59	F	

Course Expectations and Procedures

1. **Exam Policy:** Exams will be take-home under the honor code. There is no provision for making up an exam unless it conflicts with a religious holiday or coincides with a medical emergency (see policy #3 below). Such requests will be granted at the sole discretion of the faculty member and in accordance with the policies of the iSchool and the University of Maryland.
2. **Late Work Policy:** Work should be submitted via Canvas on-time. You may receive half-credit for the week after the due date; after that no credit may be earned. (A broken computer, power outage, lost internet connection, or corrupt file is not a recognized reason for a waiver of this policy.) All requests for extensions will receive the same polite and non-negotiable response – “no.” The only exception to this policy is documentable medical emergencies and religious holidays.
3. **Exceptions to Late Work Policy:** If a medical exception is to be granted to a student, the student must provide documentation (a doctor’s note or letter stating the duration the student is excused from employment and school). Prescriptions, receipts, and treatment instructions are not considered adequate documentation. Documentation must be submitted via email to the professor within 7 days of the event to be considered. Arrangements for religious holidays should be submitted 7 days prior to the event so that appropriate planning can occur. Exceptions are not automatic and are at the sole discretion of the professor. Requests for exceptions

or extensions should be made in writing and sent to the professor via email. All documentation should be attached to this email.

4. Regular online participation is expected of all students. Students are responsible for all announcements, material covered, and assignments due. The instructor recommends exchanging contact information with other students to support each other through the online course experience.
5. Students are expected to complete reading assignments on time.
6. Your laptop computer will be the key portal to online class activities. In addition, I will be pointing you to various free software to help you grow as a professional.
7. **Participation Policy:** Participation grades involve engaging effectively with in-class exercises, participating in group work, interacting with your instructor and peers, and attending class regularly.
8. **Deliverable Format:** Unless otherwise specified in the assignment instructions, the following guidelines apply to all assignments. All work for this course should be submitted via the appropriate link in ELMS unless otherwise instructed in the assignment instructions. Work submitted via email (except by explicit instruction of the professor) will not be accepted. All deliverables (papers, discussion boards, projects, etc.) should adhere to APA guidelines. Assignments should be typed and submitted in a Microsoft Word docx file format unless otherwise specified in the instructions. Work should be size 12 Times New Roman font with single spacing (no before or after spacing) and margins of 1” on all sides. Students who do not follow submission and format instructions may be subject to earning a grade of zero.

The syllabus and course policies are subject to change based on the needs of the class with advance written notice provided to students via ELMS.

Emailing the Professor

Email correspondence is the primary method of communication in this course. The professor will make every effort to respond to student email within 48 hours of receipt during weekdays. Emails that require further research or the response of another colleague or department may take longer. Emails received on weekends, holidays, or when the university is closed will receive a response on the next weekday that the university is open.

I prefer you use the Canvas email function for day-to-day activities. However, if there is something you prefer to send directly to my UMD email address, please note that Email must be sent to the professor using your UMD student email. The professor is unable to respond to emails send by students from their personal accounts – especially when corresponding regarding confidential, personally identifiable, or assessment data.

Professors receive many emails from students, colleagues, administrators, regional partner organizations, and research teams each day. To help me prioritize your emails and ensure a prompt reply, I use filters on my inbox. *Please adhere to the following guidelines when sending me an email (neglecting these guidelines may prolong a response).*

- Your subject line should include the course and section information and the topic of your email. Examples include:
 - INST 346; Response Requested: Interpreting Wireshark Captures
 - ISNT 346; Grade Fix Requested: My Quiz 1 grade is not correct
- Please proceed with an appropriate greeting:
 - Dear Dr. Frezzo
 - Dear Professor
- Use the body to state your question, provide information, or otherwise communicate your message to me.
- Provide all relevant data and be specific.
- Conclude with any requests you are making clearly delineated.
- Close with a proper signature line.
 - Sincerely, Your Truly, Best Regards (and your name)
- Please use correct spelling and grammar. Professional written communication is an important skill. Abbreviations and “text-like” conventions (emoji, shorthand) is not appropriate for this communication medium.
- Proof before you click send.

University Policies and Important Course Policies

University policies regarding cheating, plagiarism, student code of conduct, student attendance, course accessibility, and other topics pertinent to student rights and success are located on the website for the office of undergraduate studies:

<http://www.ugst.umd.edu/courserelatedpolicies.html>

All students should review this site and familiarize themselves with these policies.

All instances of academic dishonesty will be forwarded to the appropriate university officials and will result in a minimum action by the professor and university of a grade of zero on the assignment/exam.