KENNESAW STATE UNIVERSITY

SYLLABUS

COLLEGE OF COMPUTING AND SOFTWARE ENGINEERING
DEPARTMENT OF INFORMATION TECHNOLOGY
IT 3123: HARDWARE & SOFTWARE CONCEPTS
SPRING 2023

Course Information

Class meeting time: Asynchronous
Modality and Location: Fully On-Line

Instructor

Name: Jamie Jamison
E-mail jjamison@kennesaw.edu
Office Location: R-302
Office Phone: please use email only
Virtual Office Hours: Tues & Thurs 11a -1p (zoom info on d
Physical Office Hours: Mondays & Weds 9a-12p
Room J-124
Course Communication:

- Email is the best way to reach the instructor. Use Outlook email if possible. Students' emails will be replied WITHIN 24 hours during the weekday. Weekend and holidays don't apply.
- When emailing the instructor **ALWAYS** put the course number in the subject line. Emails without proper subject line will not be replied.
- Avoid using personal email. Sensitive information (such as your grades) can ONLY be sent to D2L email or KSU email account.
- No homework assignments are accepted through email. Only use Drop Box.

Course Description

1. **Prerequisites/Corequisites**: (CSE 1321 and CSE 1321L both with a "B" or higher) or IT 1113

   Credit Hours: 3-0-3 (3 credit hours)

   Course Description: This course examines various hardware and software components and how they work together in a modern computing environment. Topics include an

overview of computer organization and architecture, machine language and modern languages.

Required Texts: There is one textbook required for this course, but it is free of charge to you since you access this textbook through *Introduction to Computer Science Second Edition* https://learning.oreilly.com/library/view/introduction-to-computer/9788131760307/

To access the reading material, go here: https://www.safaribooksonline.com/library/view/temporary-access/ In the block for "Institution," click "not listed" and enter your KSU email address when prompted. When you are logged in, click the reading links to access the reading material.

You might have to search for it when you are there the first time.

For the links in the Living Schedule to work, you must first complete the above steps.

Technology Requirements:

- This class uses D2L as hosting site. Run a system check to ensure your computer work with D2L. Check out UITS D2L training: http://uits.kennesaw.edu/support/d2ltraining.php .
- Internet Connection. A high-speed Internet connection such as DSL or cable Internet access is highly recommended. You may also use computer labs on campus to complete the coursework.

Student Learning Outcomes

By the end of this course, a student should be able to:

1. Identify, use and convert binary, decimal, and hexadecimal number systems, describe common digital data formats, and describe fundamental digital logic circuits and their relationship to binary numbers.

2. Explain the relationship between digital logic and computation, describe the parts of a computer instruction, and explain the fetch-decode-execute instruction cycle.

3. Describe and use the components of a CPU, input/output hardware, peripherals, and digital communications and how they work. Apply the hierarchy of storage to explain how storage, data, and computation are related.

4. Describethefunctionsofanoperatingsystemandbeabletocomparevarioustypesof operating systems, including file management, cache and virtual memory, memory management, and security.

5. Use and differentiate between high-level, low-level and machine computer languages.

Course Requirements and Assignment

See D2L for specific Assignment Requirements

Evaluation and Grading Policies

Weight Distribution

Grading Item	Weight	Notes
Exams (2)	30%	• midterm (modules 1-2) • final (modules 3-4)
Quizzes	50%	Administered in D2L approximately 7 days before the due date. Quizzes are open-book and open- notes, but not "open Internet" Quizzes are timed
Assignments	10%	3 assignments
Discussion	10%	You receive points as follows: • 4 points – you give your initial response to the question, then respond to 3 other classmates 3 points – you give your initial response to the question, then respond to 2 other classmates • 2 points – you give your initial response to the question, then respond to 1 other classmate • 1 point – you give your initial response only • 0 points – you don't participate in the discussion ***Responses should be meaningful (not just stating agreement or disagreement with the discussion). Examples and research are expected)*** Discussions have due dates! Please check the calendar.
Total	**100%**	

Grading Scale:
90% - 100% A
80% - 89% B
70% - 79% C
60% - 69% D
0% - 59% F

Course Policies

Course Attendance Policy

- For on campus/hybrid section, students are expected to come to each class on time. Stay during the whole class period.
- For both campus/hybrid and online section, students' attendance is also measured by how often a student login in D2L course website, participation of online discussion, as well as on-time completion of homework.

Grading Items Turnaround Time

- The grades for the exams will be available 48 business hours after the due date
- The grades for labs/assignments/projects will be available 96 business hours after the due date

Assignments & Exam Policy

- Submissions after the deadline less than or equal to 24 late are subject to a 10% penalty. Any submission that is less or equal than 48 hours late is subject to 20% penalty. Submissions that are more than 48 hours late will NOT be accepted. After that date/time passes, only assignments with formal documentation of illness or emergency will be accepted. Documentation can be submitted up to 7 days from deadline, after that time the grade will remain a zero.
- All discussions, quizzes and exams MUST be completed on D2L website by the deadline specified in course calendar. The exams can't be opened/submitted after the deadline.
- If you must miss a quiz/exam due to illness, you must e-mail or call the instructor before the scheduled time. Failure to notify the instructor prior to the scheduled time will produce an automatic zero for the exam. NO makeup for exams.

Proctored Exam
There will not be ANY Proctored Exams.

Student Responsibility
For this class, you are expected to spend seven to eight hours each week on coursework:

- Check KSU email regularly;
- Login D2L course website frequently to access the course material (at least every other day);
- Follow the weekly study guide in the learning module;
- Study the assigned material such as virtual lectures, textbook chapters and the PowerPoint slides;
- Complete assigned quiz/assignment/discussion/project on time.

Tips for Effective Online Learning

For an online class, students can really enjoy the benefits of learning at you own pace and at the place of your choice. Below are some tips for effective online learning.

- *Check D2L course website frequently*. It's recommended that students should login D2L course site **AT LEAST** every other day. Always be aware of current status of the course. Take advantage of the posted learning material such as recorded lectures.
- *Work with the instructor closely*. If you have any question, contact the instructor immediately. You can either email or text me and your message is guaranteed to be replied within 12 hours.
- *Start your work early*. If you can start a task early, don't start late. Assuming you spend the same amount of time completing the task, starting later will be much more stressful than starting early. Never start until the last minute! You'll have no turnaround time if you need help or something happens.
- *Keep up with the work*. Don't fall behind. If you do, contact the instructor immediately for what you need to do. The instructor may also contact you if he is concerned. Respond to the instructor's inquiry promptly.

Class Communication Rules

In any classroom setting there are communication rules in place that encourage students to respect others and their opinions. In an online environment, the do's and don'ts of online communication are referred to as **Netiquette**. As a student in my course you should:

- Be sensitive and reflective to what others are saying.
- **Avoid typing in all capitals** because it is difficult to read and is considered the electronic version of 'shouting'.
- Don't flame - These are outbursts of extreme emotion or opinion.
- Think before you hit the post (enter/reply) button. You can't take it back! Don't use offensive language.
- Use clear subject lines.
- Don't use abbreviations or acronyms unless the entire class knows them. Be forgiving. Anyone can make a mistake.
- Keep the dialog collegial and professional, humor is difficult to convey in an online environment.
- Always **assume good intent** and **respond accordingly**. If you are unsure of or annoyed by a message, wait 24 hours before responding.

Course Schedule

Course Outline

Below is an outline of the content and activities in each unit of the course. All assignments are to be submitted through the D2L Assignment Folder Tool according to the Assignment Folder due dates, which are in Eastern Time.

Week	Day	Date	Topic	Readings	Assignments	Due Date	Posting Location
1	M	1/9	Start Here Module	● ITC: 1.1 1.5	Introduction Discussi	1/15, 11:59 pm	D2L

			0- Introduction and Overview	● Course Slides	on		
	W	1/11	Introduction and Overview				
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
2	M	1/16	NO CLASS _ MLK HOLIDAY		D2L		
	W	1/19	Module 0- Systems, Computer Systems, Computer Architecture	• ITC: 1. 6 Course Slides	Quiz 1	1/22	
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
3	M	1/23	Module 1 - Number Systems and Binary Numbers	● ITC:- 2.1- 2.4.1 ● Course Slides	Discussion 1	2/5, 11:59m	D2L

	W	1/30	Module 1 - Number Systems and Binary Numbers			2/5, 11:59m	D2L
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
4	M	2/6	Module 1 - Data formats	● Course Slides	Quiz 2 Discussion 2	2/13, 11:59 pm 2/13	D2L D2L
	W	2/8	Module 1 - Data formats				
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
5	M	2/13	Module 1 - Two's Compliment and Floating Point Numbers	• ITC: 2.6-2.6 • Floating Point in Course Slides			D2L
	W	2/15	Module 1 - Two's Compli		Homework Assignment 1	2/19, 11:59 pm	

			ment and Floating Point Numbers				
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
6	M	2/20	Module 2 - Digital Logic	● ITC: 2.8-2.10 ● Course Slides	Quiz 3	2/26	D2L
	W	2/22	Module 2 - Digital Logic				
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
7	M	2/27	Module 2 - CPU and Memory	● ITC:- 3.1-3.4 ● Course Slides	Assignment 2	3/5, 11:59 pm	D2L
	W	3/1	Module 2 - CPU and Memory	• ITC:- 3.5 Ch 4 • Course Slide			

				s			
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
8	**M**	**3/6**	**HOLIDAY BREAK**	● ---	**---**	**---**	D2L
	F	**3/8**	**HOLIDAY BREAK**	• ---	---	---	
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
9	**M**	**3/13**	**Module 2 - Modern Computer Systems**	● **ITC:- 3.6-3.8** • Course Slides	Quiz 4	3/12	D2L
	W	**3/15**	**Module 2 - Modern Computer Systems**	• **ITC:- 3.9-3.10 Course Slides**			

Week	Day	Date	Topic	Readings	Assignments	Due Date	Posting Location
9	M	3/20	Module 3 - Input and Output	• ITC: - Ch 5 ● Courses Slides			
	W	3/22	Module 3 - Input and Output	•	Exam 1	3/19	D2L
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
10	M	3/27	Module 3 - Disk Devices	● ITC: - Ch 6 Ch 7 ● Course	Discussion 3	3/26, 11:59 pm	D2L

				Slides			
	W	3/29	Module 3 - Data Communications Part 1 - Networks Overview	• ITC: 12.1 12.2 Course Slides	Quiz 5	3/26 11:59 pm	D2L
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
11	M	4/3	Module 3 - Data Communications Part 2 - Ethernet and TCP/IP Networking	● Course Slides	Discussion 4	4/2, 11:59 pm	D2L
	W	4/5	Module 3 - Data Communications Part 2 - Ethernet and TCP/IP Networking	•	Quiz 6	4/2	D2L
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
12	M	4/10	Module	● IT		4/9	

			3 - Data Communications Part 3 - Communication Protocol Technology	**ITC: 12.8** • Course Slides	**Discussion 5**	**11:59 pm**	D2L
	W	**4/12**	**Module 3 - Data Communications Part 3 - Communication Channel Technology**	**ITC: 12.3-12.5** **• Course Slides**	**Quiz 7**	**4/9**	
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
13	**M**	**4/17**	**Module 4 - Introduction to Operating Systems**	**ITC: - 11.1-11.3** **• Course Slides**	**Discussion 6**	**4/16, 11:59 pm**	D2L D2L
	W	**4/19**	**Module 4 - Introduc**	**• Course Slide**	**Quiz 8**	**4/16**	

			tion to Operating Systems – Users / Introduction to Operating Systems File & Directory Mgmt	**s**			
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
14	**M**	**5/1**	**Module 4 - Operating System Internals 4 -**	● **ITC:- 11.5 Course Slides**			D2L D2L
	W	**5/3**	**Module 4 - Operating System Examples Module 4 - Programming and Programming tools/ Computing Security**	● **ITC:- 11.5** Course Slides	**Assignment 3**	**4/23, 11:59 pm**	

			Final Exam Review				
Week	**Day**	**Date**	**Topic**	**Readings**	**Assignments**	**Due Date**	**Posting Location**
16	**M**	**5/8**		• **Course Slides**	**Discussion 7**	**5/7, 11:59 pm**	D2L
	W	**5/10**		• **Readings** • **Course Slides** **Supplemental Material**	Exam 2		
Week	Day	Date	Topic	Readings	Assignments	Due Date	Posting Location
17	**Th**	**5/11**	**Grades due**				

Week Start	**Content Covered**	**Assignments Due**	**Due Date**
15-Aug	Module 0- Introduction and Overview	Introduction Discussion	8/21
22-Aug	Module 0- Systems, Computer Systems, Computer Architecture	Quiz 1	8/28
29-Aug	Module 1 - Number Systems and Binary Numbers	Discussion 1	9/4
5-Sep	Module 1 - Data Formats	Quiz 2, Discussion 2	9/11
12-Sep	Module 1 - Two's Compliment and Floating Point Numbers	Assignment 1	9/18

19-Sep	Module 2 - Digital Logic	Quiz 3	9/25
26-Sep	Module 2 - CPU and Memory	Assignment 2	10/2
3-Oct	Module 2 - Modern Computer Systems	Quiz 4	10/9
10-Oct	Module 3 - Input and Output	Exam 1	10/16
17-Oct	Module 3 - Disk Devices, Data Communications Part 1 - Networks Overview	Discussion 3, Quiz 5	10/23
24-Oct	Module 3 - Data Communications Part 2 - Ethernet and TCP/IP Networking	Discussion 4, Quiz 6	10/30
31-Oct	Module 3 - Data Communications Part 3 - Communication Protocol Technology	Discussion 5, Quiz 7	11/6
7-Nov	Module 4 - Introduction to Operating Systems -Users	Discussion 6, Quiz 8	11/13
14-Nov	Module 4 - Introduction to Operating Systems File & Directory Mgmt, System Internals	Assignment 3	11/20
21-Nov	FALL (Thanksgiving) BREAK		
28-Nov	Module 4 - Operating System Examples Module 4 - Programming and Programming tools, Computing Security	Discussion 7	12/4
5-Dec	Final Day of Classes is Dec 5	Final Exam	TBA

Please take a look at the Living Schedule listed in D2L (LivingScheduleF22IT3123) in the same directory as this syllabus. This will be our road map for the course and will show what topics will be covered and when. It will also list important dates such as: Assignment due dates, exam dates, and scheduled university closures.

Important dates:

- Add/Drop ends: Aug 19 11:45 pm
- Last Day to Withdraw Without Academic Penalty: Oct 11 11:45 pm
- Last Day to Withdraw for the Term With a WF: Nov 29.
- Last Day of Class: Dec 5.

Institutional Policies

- Federal, BOR, & KSU Course Syllabus Policies
- Academic Integrity Statement
  - Examples of violation of academic integrity: 1) copy from others or from Internet; 2) allow others to copy your work; 3) use other's help or help other in completing the quizzes or exams.
  - The first violation of academic integrity, the student will immediately receive 0 for the associated grading item. For the 2nd violation, the student will receive a fail grade for this course.

KSU Statements on COVID-19 (FYI)

Link to the official KSU COVID-19 web page: https://coronavirus.kennesaw.edu/

Face Masks in The Classroom
As mandated by the University System of Georgia, the university recommends the use of face masks in the classroom and in KSU buildings to protect you, your classmates, and instructors. Per the University System of Georgia, anyone not using a face covering when required will be asked to wear one or must leave the area. Repeated refusal to comply with the requirement may result in discipline through the applicable conduct code.

Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Please contact Student Disability Services at sds@kennesaw.edu for student accommodation requests.

Shifting Modalities
Please note that the university reserves the right to shift teaching modalities at any time during the semester, if health and safety guidelines require it to do so. Some teaching modalities that may be used are F2F, Hyflex, Hybrid, or online, both synchronous and asynchronous instruction.

Staying Home When Sick
If you are ill, please stay home and contact your health professional. In that case, please email the instructor to say you are missing class due to illness. Signs of illness include, but are not limited to, the following:

- Cough
- Fever of 100.4 or higher
- Runny nose or new sinus congestion
- Shortness of breath or difficulty breathing
- Chills
- Sore Throat
- New loss of taste and/or smell

Seating Plans
Students will sit in the same seat for every F2F class so that the instructor can use a seating plan for contact tracing if a student contracts Covid-19.

Student Resources

This link contains information on help and resources available to students: KSU Student Resources for Course Syllabus