

 FLORIDA ATLANTIC UNIVERSITY	NEW COURSE PROPOSAL Graduate Programs		UGPC Approval _____ UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner _____ Catalog _____	
	Department Information Technology and Operations Manag College Business (To obtain a course number, contact erudolph@fau.edu)			
Prefix ISM Number 6146	(L = Lab Course; C = Combined Lecture/Lab; add if appropriate) Lab Code	Type of Course Lecture	Course Title Business Software Systems Development	
Credits (See Definition of a Credit Hour) 3	Grading (Select One Option) Regular <input type="radio"/> Sat/UnSat <input type="radio"/>	Course Description (Syllabus must be attached; see Template and Guidelines) The course offers an overall understanding of computer systems, software architecture. Setting up a technical solution for business needs. You will learn to create a client mobile/web that will interact with a server (backend) and that will work with a database and other components.		
Effective Date (TERM & YEAR) Spring 2025				
Prerequisites ISM 3230 Intro Comp Sys Softw Develop <i>Prerequisites, Corequisites and Registration Controls are enforced for all sections of course.</i>		Academic Service Learning (ASL) course <input type="checkbox"/> Academic Service Learning statement must be indicated in syllabus and approval attached to this form.		
		Corequisites	Registration Controls (For example, Major, College, Level) Admission to an FAU graduate program	
Minimum qualifications needed to teach course: Member of the FAU graduate faculty and has a terminal degree in the subject area (or a closely related field).		List textbook information in syllabus or here		
Faculty Contact/Email/Phone Magno Queiroz / mqueiroz@fau.edu / 7-2332		List/Attach comments from departments affected by new course EECS was contacted. No objections were raised. See attached.		

Approved by Department Chair _____ College Curriculum Chair <i>Robert Pinsker</i> College Dean <i>Marc Rhorer</i> UGPC Chair _____ UGC Chair _____ Graduate College Dean <i>Robert W. Johnson</i> UFS President _____ Provost _____	Date 9 / 15 / 2024 9/24/2024 9/24/2024 10/02/2024 10/02/2024 10/02/2024 _____ _____
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Email this form and syllabus to UGPC@fau.edu 10 days before the UGPC meeting.

Tamara Dinev

Subject: FW: New Courses from ITOM

From: Hari Kalva <hkalva@fau.edu>
Sent: Thursday, August 22, 2024 3:19 PM
To: Tamara Dinev <tdinev@fau.edu>
Cc: Waseem Asghar <wasghar@fau.edu>; Raquel Assis <rassis@fau.edu>
Subject: RE: New Courses from ITOM

Hi Tamara, no objections from our department.

Best,
Hari

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Hari Kalva, Ph.D.
eecs.fau.edu

From: Tamara Dinev <tdinev@fau.edu>
Sent: Monday, April 15, 2024 8:16 AM
To: Hari Kalva <hkalva@fau.edu>; Mihaela Cardei <mcardei@fau.edu>
Cc: Waseem Asghar <wasghar@fau.edu>
Subject: New Courses from ITOM

Dear Dr. Kalva:

The ITOM department has the following three new courses that we are developing to include in our course offerings.

The AI courses are new, the Business Software development course is the graduate match of our undergraduate course that we have been offering since 2000, ISM 4243

We are looking for your review and feedback on these courses. Please see the attached syllabi and let us know if you have any questions.

Best Regards:
Tamara

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Tamara Dinev, Ph.D.
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Dean's Distinguished Research Fellow
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College of Business, Florida Atlantic University
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Google Scholar: <https://scholar.google.com/citations?user=YH8QZ-YAAAAJ&hl=en>



ISM 6146 SECTION CRN

BUSINESS SOFTWARE SYSTEMS DEVELOPMENT

DAYS TIMES
Classroom: BLDG ROOM
3 credits

SPRING 2025

Prof. Fady Guirguis, M.S.
Office: BLDG ROOM
Office Hours: DAYS & TIMES
Telephone: 561-297-XXXX
Email: fguirguis2012@fau.edu



Course Description

This course offers an overall understanding of computer system, software architecture. Setting up a technical solution for business needs. You will learn to create a client mobile/web that will interact with a server(backend) and that will work with a database and other components.

Instructional Method

This class is designated as “In-Person w/Remote Option”.

Wed 06:30 pm – 09:20 pm.

- **Attendance is required**; however students have an option of how they attend class. Students can either attend remotely via Zoom, or be able to attend in-room. ***There is no extra credit for attending in person and there is no penalty for attending remotely ... it is totally up to the student how they choose to attend.***
- Students must participate in the Online Live Lecture on Wednesday at 06:30 pm – 09:20pm. The lectures will be streamed live using Zoom (See Canvas for link to the class session)
- The class will not be recorded.
- All the course assignments (i.e. exams, quizzes) can be completed 100% online.
- Video cameras for students during class are not mandatory, although, encouraged for a more active participation and engagement in the course during the live lectures.

Required Text and Materials

- Sams Teach Yourself HTML, CSS & JavaScript Web Publishing in One Hour a Day, ISBN-13: 978-0-672-33623-2
- PC/Laptop with windows operating system and webcam. You are free to use different operating system but you are responsible to know how to copy, paste, compress, and find files in your system.
- Java (JDK) 8 or later and IntelliJ Community Edition IDE (free!).
- VS Code
- Postman
- Other Software tools
- Zoom and Microsoft Teams

Web Resources

<https://www.w3schools.com/>

<https://www.tutorialspoint.com/jsp/>

<https://www.codecademy.com/learn/learn-html>

<https://www.codecademy.com/learn/introduction-to-javascript>



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Course Prerequisites, Credit Hours, and Class Time Commitments

ISM 3230 Intro Comp Sys Softw Develop

Students are expected to be familiar with using Windows or OSX — to create and navigate through directories; copy files with drives, directories, and file names specified; understand the purpose of directories; and understand the distinction between drives, directories, and files. Prior programming experience or course work may be considered in lieu of this course, with departmental approval.

This course is worth 3 credit hours.

Course Learning Objectives

Students will be introduced to advanced programming concepts and techniques. Students will use a variety of programming languages, frameworks, and tools. Students will learn how to set connections between systems and send and receive requests between the system. Students will learn advance system architecture concepts.

Students will be introduced to techniques (Unified Modeling Language, UML) to solve problems using algorithms. Students will also be introduced to various programming constructs in the Java programming language and will be challenged to determine when to apply these techniques to different problems.

Students will learn how to apply problem-solving techniques to develop algorithms and programs to provide a technical solution for a business. Students will do research to obtain a roadmap of building a system for a business. Students will build various projects in the course.

Course Resources

This course is Canvas-assisted, and much course business, such as file distribution, emails, assignment submission, and announcements between classes, will occur exclusively through Canvas. Therefore, students are expected to have access to a computer, the Internet, and a Java compiler for this course. If you do not have your own, computers are available to all FAU students in the FAU Open Labs (<http://www.ecs.fau.edu/labs/open/>). We will be using Canvas extensively for this course, so make sure that you log in and get familiar with the course web site as soon as possible. In addition, if you need to transfer files between your home computer and the lab, you should furnish your own means, such as a thumb drive (recommended), CD-ROM, or online storage.

Course Grading Scale

Grading Scale

Your course grade is **based on your own individual work**. Everyone is given the same opportunity to achieve a high grade. The best way to end the semester well is to begin the semester well and follow



through consistently. Please realize that you earn your grades and that **your actions alone** determine your grade. I cannot arbitrarily move the grading scale to accommodate individual students' specific needs or desires.

The grading scale:

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Cutoff	94	90	87	84	80	77	74	70	67	64	60	0

Please do not ask me for an unearned extra point or two at the end of the semester in order to move you into the next grade category. This is not only unfair to those who worked hard all semester to achieve their grades; it is also unfair to expect your instructor to do extra work to fix your mistakes for you. In life, you reap the consequences of your actions, both positive and negative. We all make mistakes from time to time and you need to accept responsibility for your actions. I will be happy to assist you in acquiring the knowledge and skills required to meet your goals, both within and outside of class. However, your grade itself is determined by you, and not by me.

Course Evaluation Method

Mini Projects/Homework assignments	20%
In-class Labs	20%
Presentation/Research	20%
Attendance/Class participation	10%
Group project	30%

MINI PROJECTS – HOMEWORK ASSIGNMENTS

There will be mini projects and assignments given. These are individual assignments unless indicated otherwise.

IN-CLASS LABS

There will be in-class assignments such as labs that will go toward your In-Class labs grade. It will be based on the lectures and other assignments.

PRESENTATION – RESEARCH

Research assignments and presentations are needed to investigate how you will support your business organization or institute.

ATTENDANCE – CLASS PARTICIPATION

Students are expected to attend every lecture and to participate by answering questions raised, solving problems presented during lecture, or raising any questions they have.

GROUP PROJECT

Groups will be created comprising of 2-3 or 3-4 students. Students will create an application that will include a client, a backend server, and other components.

All assignments are due by 11:59 PM on the date due. Students must become familiar with posting assignments to Canvas. Students must submit all assignments on time.

Additional Course Policies

Technical Course Disclaimer

This course is a technical course that requires students to apply their conceptual knowledge gained from the course materials to solve scenario-based business problems using quantitative approaches and/or computer software. In addition, this course requires commitment on behalf of the students to stay on track with completing course assignments as they are released since the concepts in this course build upon each other as the semester progresses. Therefore, please review your class schedule for this semester to make sure you do not overload yourself by pairing this course with too many other demanding or technical courses as this may cause a negative impact on your course performance.

Late Assignments

Late programming assignments will receive a 20% penalty. Each additional week will be another 20%. Example 2 weeks late, $100 - (20 \times 2) = 60\%$ max points. Additional points will be deducted as per grading rubric. An assignment is considered late once it is a sec after due date.

Attendance Policy

Students are expected to attend all their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

- You are expected to stay up-to-date with classes. It is very difficult to catch up if you fall behind.
- There will be in-class assignments, you will need to finish all assignments to receive full points for the week's attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances, and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences

and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such action.

Academic Irregularities

It is valuable to work with a friend or classmate when learning to program or working out a problem. However, the work that you perform for a grade must be your own work unless "working in groups" is explicitly allowed. Individual programming assignments in this course should be done by the individual. While I encourage you to help and teach one another, you must distinguish help from cheating. If you have trouble doing so, ask yourself if both helper and helpee would be able to complete the assigned work independently when you submit the assignment. If either one of you is unable to do so, you have cheated.

Cheating, plagiarism, copying, unauthorized collaboration, and hiring another person to do your assignments are unacceptable, and are subject to disciplinary actions, including, but not limited to, an "F" in the course, a letter of fact on your student record, and a notation on your transcript in accordance with the policies of FAU and the College of Business. In cases where this has occurred, both the person who cheats/plagiarizes/copies/collaborates/hires another person AND the originator of the work will be punished.

Please note that none of the quizzes or exams are collaborative, and any cheating attempts will be dealt with harshly and swiftly. Examinations are closed book/notes/computer/cell or smart phone/iPad (the idea should be clear). Hats, cell phones, and any electronic devices are disallowed in the exam/quiz administration as well as during review of the exam materials, and things like clear water bottles or visible loose papers may be considered suspicious.

For information about the University's Honor Code, please refer to the policy statement under the section titled Selected College and University policies.

Anti-plagiarism Software

Written components of any assignment or project may be submitted to anti-plagiarism software to evaluate the originality of the work. Any students found to be submitting work that is not their own will be deemed in violation of the University's honor code discussed above.

Policy on the Recording of Lectures

Students enrolled in this course may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach students about a particular subject. Recording class activities other than class lectures, including but not limited to student presentations (whether individually or as part of a group), class discussion (except when incidental to and incorporated within a class lecture), labs, clinical presentations such as patient history, academic exercises involving

student participation, test or examination administrations, field trips, and private conversations between students in the class or between a student and the lecturer, is prohibited. Recordings may not be used as a substitute for class participation or class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct and/or the Code of Academic Integrity.

Netiquette Policy

Due to the casual communication common in the online environment, participants are sometimes tempted to relax their grammar, spelling, and/or professionalism; however, remember you are professionals—your communication should be appropriate. Please adhere to the following general guidelines:

- Be respectful of others and keep your language polite. Just as in the classroom, you are expected to show respect towards others and their opinions.
- Use correct grammar. Using shorthand abbreviations might be confusing to some. Use of good grammar and spelling always counts with any graded activity.
- In the online environment you do not have the advantage of voice inflection or gestures. As a result, sarcasm can come across very negative, so this form of communication should be avoided.

Email

Students are required to have an email account for this course. It is your responsibility to ensure that your email address listed in Canvas is the one that you check regularly (you can always change it in Canvas or set up auto-forward or POP download if not).

The best way to reach me is by sending an email message.

ALL emails should:

- Have "ISM 4243" at the beginning of the subject line, so that I recognize that it is from one of you, and so that my spam filters do not accidentally delete your message.
- Include your name in the body of the message since email addresses do not always identify the sender.
- Use proper salutations and signatures.
- Use the same type of language and manners that you would use in a formal, business setting.
- Ask specific questions that are not answered through Canvas.
- Make sure you completed all the prerequisites before starting your homework: watch and study the lectures, study power point presentations, and practice all the labs. If you still have problems, **please make up an appointment for my office hours; do not expect the instructor to help you code your homework via email.**
- Emails concerning software issues: List the complete sequence of procedures you followed. Most often, problems with software are procedural errors by the user. Phrases such as "it didn't let me"



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only convey that you have not understood computer concepts and/or that you are rushing and not willing to take responsibility for your actions.

If you do not follow these guidelines, I reserve the right to request a revised email with appropriate changes before addressing your questions or issues.

Selected University and College Policies

Code of Academic Integrity Policy Statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards because it interferes with the university mission to provide a high-quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive to the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [University Regulation 4.001](#).

Disability Policy Statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at <http://fau.edu/sas/>

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

Religious Accommodation Policy Statement

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices, observances, and beliefs with regard



to admissions, registration, class attendance, and the scheduling of examinations and work assignments. For further information, please see: [FAU Regulation 2.007](#)

University Approved Absence Policy Statement

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University-approved activities, including athletic or scholastics teams, musical and theatrical performances, and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any course assignment.

College of Business Minimum Grade Policy Statement

The minimum grade for College of Business requirements is a "C". This includes all courses that are a part of the pre-business foundation, business core, and major program. In addition, courses that are used to satisfy the university's Writing Across the Curriculum and Gordon Rule math requirements also have a minimum grade requirement of a "C". Course syllabi give individualized information about grading as it pertains to the individual classes.

Incomplete Grade Policy Statement

A student who is passing a course, but has not completed all work due to exceptional circumstances, may, with consent of the instructor, temporarily receive a grade of incomplete ("I"). The assignment of the "I" grade is at the discretion of the instructor but is allowed only if the student is passing the course.

The specific time required to make up an incomplete grade is at the discretion of the instructor. However, the College of Business policy on the resolution of incomplete grades requires that all work required to satisfy an incomplete ("I") grade must be completed within a period of time not exceeding one calendar year from the assignment of the incomplete grade. After one calendar year, the incomplete grade automatically becomes a failing ("F") grade.

Withdrawals

Any student who decides to drop is responsible for completing the proper process required to withdraw from the course.

Grade Appeal Process

A student may request a review of the final course grade when s/he believes that one of the following conditions apply:

- There was a computational or recording error in the grading.
- Non-academic criteria were applied in the grading process.
- There was a gross violation of the instructor's own grading system.



The procedures for a grade appeal may be found in [FAU Regulation 4.002](#).

Disruptive Behavior Policy Statement

Disruptive behavior is defined in the FAU Student Code of Conduct as “... *activities which interfere with the educational mission within classroom.*” Students who behave in the classroom such that the educational experiences of other students and/or the instructor’s course objectives are disrupted are subject to disciplinary action. Such behavior impedes students’ ability to learn or an instructor’s ability to teach. Disruptive behavior may include, but is not limited to, non-approved use of electronic devices (including cell telephones); cursing or shouting at others in such a way as to be disruptive; or other violations of an instructor’s expectations for classroom conduct.

Faculty Rights and Responsibilities

Florida Atlantic University respects the right of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions which do not impede their exercise. To ensure these rights, faculty members have the prerogative:

- To establish and implement academic standards
- To establish and enforce reasonable behavior standards in each class
- To refer for disciplinary action those students whose behavior may be judged to be disruptive under the Student Code of Conduct



Tentative Schedule

Week	Topic	Concepts and Tools	Assignments
1	HTML	VS Code, Plugins, Libraries, Elements, block, in-line, fields, forms, div	
2	CSS	Cascade, inheritance, specificity, classes, ids, box, fonts, width, length	
	HTML and CSS	Box Model, Margins, Padding, Borders, lists, element flow	In-class lab
3	Javascript	Variables, operators, selection statements, iterations, functions	
4	HTML, CSS, JS	More Functions, scope, lambda, events, buttons, alerts, more html css	In-class lab
5	Java Advanced	Network Connections, Streams, reading html pages, downloading files	HW
6	Mobile Dev	Android Studio, Emulators, HelloWorld App	In-class lab, research
7	Fact Checker App	Building a Fact Checker App using HTML, CSS, JS	In-class lab
9	Architecture	Clients, Devices, Network, Internet, DNS, Router, Servers, Firewalls	research
10	DS and Algorithms	Collections, LinkedList, Sorting, Queue, Stack, Sliding Window, Bucket	In-class lab
11	JS, JSON, Java	JSON Structure, Serialization, Deserialization, GSON, Comparing Data	Group project
12	Java Design Pattern, Databases	Designing classes, Inheritance, Polymorphism, Relational vs NoSQL	Group project
13	Servlets	Apache Tomcat, Postman, HTTP Methods, Request, Response, Server Codes	In-class lab
	Architecture	Load Balancer, Authenticator, Headers, Data Centers, Cloud Platforms, Databases, Caching, Monitoring, Logging, Requests Algorithms	HW
14	React, JS, SupaBase	Finalizing App1	HW
15	Java, Reach, JS, DB	Finalize App2	Group Project
16	Java, Reach, JS, DB	Finalize App2	Group Project