

Course Syllabus of ISM3212 Spring 2020

General Course Information	
Course Number/CRN	ISM 3212/CRN 11059
Semester/Year	Spring 2020
Credit Hours	3
Course Title	Database Concepts & Admin
Description	<p>Principles of database administration. Information systems design and implementation with database management systems. This course covers conceptual, logical, and physical design of database; SQL; and various database administration issues. Students will design and construct a physical database system to implement the logical design.</p> <p>ISM3212 is built on basic data and information management knowledge taught in ISM3011, as well as fundamental programming knowledge taught in ISM3053 or ISM3230. CIS majors learn how database tables, queries and other objects are used to maintain high quality data and produce useful information. This knowledge will be applied in ISM3113 and other upper division ISM courses to determine data requirements, develop application programs that access a database, and formulate enterprise-wide data management plan.</p>
Offering College/Department	Lutgert College of Business (LCOB)/Information Systems and Operations Management (ISOM)
Meeting Times/Location	The class meets on Tuesdays and Thursdays (1:30 pm - 2:45 pm) at Lutgert Hall 2210. The final exam is Apr 28 (T), 12:30 pm - 2:45 pm at LH2210.
Prerequisites	(COP 2006 with a minimum grade of C or ISM 2053 with a minimum grade of C or ISM 3230 with a minimum grade of C) and (ISM 3011 with a minimum grade of C or CEN 3031 with a minimum grade of C)
Course URL	http://canvas.fgcu.edu
Is this a DL Course?	No. This course is an on-campus course.
Instructor Information	
Instructor	Kazuo Nakatani. The instructor of this course has a Ph.D. in Business Administration specializing in Information Systems and a full professor of ISOM department at LCOB.
E-Mail Address	knakatan@fgcu.edu
Phone Number	239-590-7364
Office Location	Lutgert Hall 3353
Office Hours	T and Th: 3:00- 5:30 PM or by appointment.
Teaching Philosophy	In this course, my teaching effort will focus on teaching fundamental concepts related to the database technologies. The instructor will use lectures, in-class demonstrations, hands-on exercises, and assignments to help students learn those fundamental concepts. The instructor also tries to create an environment where students understand the relevance of the subject matter with respect to their personal goals and career objectives.
<p style="color: red;">Important Note: All faculty members are required to use Canvas to confirm a student's attendance for each course by the end of the first week of classes. Failure to do so will result in a delay in the disbursement of your financial aid. The confirmation of attendance is required for all students, not only those receiving financial aid. Every student must complete a mandatory activity in Canvas during the first week, which is the "Assessment at the Beginning of Semester" in this course.</p>	
Course Materials	
Required Materials	<p>Required Textbook: Modern Database Management 13th Edition by Hoffer, Ramesh, and Topi (Pearson). ISBN: 9780134773650.</p> <p>Required Software: All are available at FGCU VLAB (http://aets.fgcu.edu/vlab.asp) for free to use.</p> <ol style="list-style-type: none"> 1. VMWare Horizon Client to access FGCU Virtual Lab. This is free. http://aets.fgcu.edu/vlab.asp. 2. Microsoft SQL Server (Minimum requirement is Express Edition)

	<p>3. Microsoft Visio 2016 4. Microsoft Word</p> <p>Optional Software: All are available at FGCU VLAB (http://aets.fgcu.edu/vlab.asp) for free to use.</p> <p>1. Teradata Studio. Available at http://downloads.teradata.com/download/tools/teradata-studio. This is free.</p>
<p>Course Policies and Other Policies</p>	
<p>Grading Policy</p>	<p>Graded Learning Activities/Assignments in this course are:</p> <ul style="list-style-type: none"> - Exam 1 (Chapters 1, 2, 3, 4, 14, HW 1 & 2): 20 points - Exam 2 (Chapters 5, 6, 8, HW 2, 3 & 4): 20 points - Exam 3 (Comprehensive: Chapters 1 - 12, HW 1 - 4): 30 points - Individual Research Report: 10 points - 4 Individual and/or Group Homework Assignments: Total: 20 points (5 points each) <ul style="list-style-type: none"> • Some parts of the Homework Assignments can be done as a group of 2 students only if students wish. Those who want to work as a group of two MUST email the names of the 2 students to the instructor at least 1 week before the due date and obtain an approval. Both students earn the same grade regardless of his/her contributions. A student can choose a different partner for different assignments. <p>Grading Policy:</p> <p>A: 90 points or above B+: Less than 90 points – 87 points B: Less than 87 points – 80 points C+: Less than 80 points – 77 points C: Less than 77 points – 70 points D+: Less than 70 points – 67 points D: Less than 67 points – 60 points F: Less than 60 points</p> <p>No extra credit or additional assignment: Please be aware that FINAL GRADES FOR THIS COURSE ARE FINAL. No extra credit or additional assignments are available at the end of the course.</p> <p>Turnitin.com: Students who take this class must prepare electronic copies of some or all assignments to submit them to Turnitin.com for the detection of plagiarism. The University expects that all students will be evaluated and graded on their own work. If you use language, data or ideas from other sources, published or unpublished, you must take care to acknowledge and properly cite those sources. Failure to do so constitutes plagiarism. Papers that are submitted to Turnitin.com become part of the Turnitin.com student paper database solely for the purpose of detecting plagiarism.</p> <p>Grading and Feedback:</p> <ul style="list-style-type: none"> - The instructor will try to grade assignments and provide feedback within one week although it is not guaranteed. - Detailed grading criteria for homework assignments will be specified in their detailed instructions. <p>Hours You Are Expected to Spend for this Class:</p> <ul style="list-style-type: none"> - In general, full-time college students are expected to spend an average of 6 hours every week preparing and doing homework for each 3 credit hour course. Although you may not need to spend this many hours, depending on your background and study habits, you may not be able to finish homework assignments in 1 hour.
<p>Attendance Policy</p>	<p>- Attendance is strongly suggested but is NOT part of the course grade.</p>
<p>Other Policies</p>	<p>Policy regarding assignment completion deadlines:</p>

- No late assignments will be accepted for any reasons except for the authorized and excused absence specified in the university catalog. A student who seeks an authorized or excused absence must submit documentations (such as a physician's note) to the instructor. See the university catalog for more information. Canvas Assignment Drop-Boxes and others will disappear after the due dates.
- "Dropped by the university for not paying the full tuition" is NOT a reason for the authorized and excused absence specified in the university catalog.
- An emergency situation such as unavailability of or inaccessibility to Canvas (due to network problems) will be considered by the instructor case by case.

Policy regarding making up for missed assignments and exams:

- No make up for missed assignments or exams for any reasons except for the authorized and excused absence specified in the university catalog. A student who seeks an authorized or excused absence must submit documentations (such as a physician's note) to the instructor. See the university catalog for more information.
- "Dropped by the university for not paying the full tuition" is NOT a reason for the authorized and excused absence specified in the university catalog.
- An emergency situation such as unavailability of or inaccessibility to Canvas (due to network problems) will be considered by the instructor case by case.

Communication with Instructor:

- FGCU EagleMail, in addition to class sessions, will be used as a primary method for communication. Check EagleMail very frequently (everyday).
- If you have a course-related question about class in general, homework assignments, exams, or other class related materials, or personal question, such as one about grades, use EagleMail to email the instructor. The instructor will try to respond in 24 hours except for weekends.
- Assignments, instructions, and other course information in Canvas are integral components of the course materials and are hereby incorporated as part of the course syllabus.

Policies regarding use of cell phones, PDAs, laptops, and other personal electronic devices

- They are prohibited during the three exams.

Policies regarding video and audio taping of class lectures

- Audio taping or video taping of the class lectures is not allowed – with the exception of any student that has a documented disability and the OAS determines the best reasonable accommodation for the student is to allow them to audio tape or video tape class lectures.

How to Contact Instructor

You may want to send an email message from Canvas or your **EagleMail** to my FGCU faculty email account, knakatan@fgcu.edu.

- FGCU Spam filter may block your message from non-FGCU EagleMail account such as gmail or icloud.
- Include the course number (ISM3212) in the subject line of the email because, otherwise, I may not recognize which course you are in.
- Always include your name at the end of your message because, otherwise, I may not recognize who you are.

Other than coming to see me during my office hours, if you need help, try email first.

The instructor may NOT read and respond your message during weekends.

Comments in Canvas assignments may NOT be received by the instructor in a timely manner.

To Start the Course

- Carefully read this course syllabus.
- Activate your FGCU EagleMail Account (if you have not done this). Your FGCU EagleMail account MUST be activated to log in to Canvas. If you are a first time student, you will need your PIN and Eagle ID, both of which are assigned at registration.
- If you don't know your PIN, you will need to go to the Registrar's office to retrieve it.
- To activate your account, visit <https://fgcu-web02.fgcu.edu/EagleMail/UpdateAccount.jsp?mode=activate>.
- Get the required textbook specified in the course syllabus.

Additional Information

- You need to feel comfortable with using a computer. If not, you may need to put extra effort to become comfortable to use a computer.
- You need to feel comfortable with using the FGCU Virtual Lab (<http://aets.fgcu.edu/vlab.asp>). If not, you may need to put extra effort to become comfortable to use a computer.
- Start homework assignments as early as possible. They should become available about two weeks before their due dates. There will be no penalty for submitting the assignments earlier than their due dates. On the other hand, no late submission will be accepted (see the Other Policies section of the syllabus for more information). If you are a person who starts an assignment/homework on the due date, you may not earn a good grade in this course. Completing assignments of this course may take longer than you think.
- Pay the full tuition or make sure your scholarship/financial aid has been received by the university before the payment deadline. If you don't pay the full tuition, the university will drop you from the roster. Then, you may not be able to log in Canvas and thus cannot complete assignments on time. You may NOT be able to make up missed assignments for this reason.

University Statements

Academic Behavior Standards and Academic Dishonesty:

All students are expected to demonstrate honesty in their academic pursuits. The university policies regarding issues of honesty can be found in the FGCU Student Guidebook under the Student Code of Conduct and Policies and Procedures sections. All students are expected to study this document which outlines their responsibilities and consequences for violations of the policy. The FGCU Student Guidebook is available online at

<http://studentservices.fgcu.edu/judicialaffairs/new.html>. **A likely sanction of an academic dishonesty conduct is a failing grade (F) in the course.** Examples of misconduct violations include:

- submitting the work of another
- using unauthorized assistance
- use of unauthorized sources
- acquisition of tests or other academic material
- behavior prohibited by syllabus or instruction
- submitting previous work without approval
- preparing work for another student
- distributing intellectual property without authorization
- falsifying academic work
- plagiarism
- subverting the academic process
- attempting or assisting in an act of academic misconduct
- signing attendance sheet for another student
- make a fake excuse for missing attendance, assignment, and exam

University Nondiscrimination Statement

Florida Gulf Coast University is committed to ensuring equity and fairness for all University employees, students, visitors, vendors, contractors and other third parties. As such, the University prohibits discrimination on the bases of race, color, national origin, ethnicity, religion, age, disability, sex (including sexual harassment/assault), gender identity/expression, marital status, sexual orientation, veteran status or genetic predisposition with regard to admissions, employment, programs or other activities operated by the University. This prohibition extends to enforcement of Title IX of the Education Amendments of 1972. Questions or complaints should be directed to the Office of Institutional Equity and Compliance (OIEC). The OIEC's phone number is (239)745-4366; the OIEC email address is OIEC@fgcu.edu.

Disability Accommodations Services

Florida Gulf Coast University, in accordance with the Americans with Disabilities Act and the university's guiding principles, will provide classroom and academic accommodations to students with documented disabilities. If you need to request an accommodation in this class due to a disability, or you suspect that your academic performance is affected by a disability, please see me or contact the Office of Adaptive Services. The Office of Adaptive Services is

located in the Wellness Building. The phone number is 239-590-7956 or Video Phone (VP) 239-243-9453. In addition to classroom and campus accommodations, individuals with disabilities are encouraged to create their personal emergency evacuation plan and FGCU is committed to providing information on emergency notification procedures. You can find information on the emergency exits and Areas of Rescue Assistance for each building, as well as other emergency preparedness materials on the Environmental Health and Safety and University Police Department websites. If you will need assistance in the event of an emergency due to a disability, please contact Adaptive Services for available services and information.

Student Observance of Religious Holidays

All students at Florida Gulf Coast University have a right to expect that the University will reasonably accommodate their religious observances, practices, and beliefs. Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day. A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence.

Mental Health Statement

Counseling and Psychological Services (CAPS) provides free counseling and therapy services (including psychiatry) to all FGCU students. Please walk in to the second floor Howard Hall office any week day between 8:30 and 4:30 to schedule an initial contact appointment. Visit the CAPS website at www.fgcu.edu/caps for more information. CAPS offers a 24/7 Helpline at (239) 745-3277 (EARS).

Student Learning Outcomes	Evaluation & Assessment Methods
1. Recognize benefits and costs of relational database technology.	Homework assignment and Multiple choice questions of exams
2. Recognize a systematic relational database development process.	Multiple choice questions of exams
3. Analyze user requirements and create Entity-Relationship Diagrams (ERD) or Object-Oriented Class Diagram.	Homework assignment and Multiple choice questions and Problem-solving question of exams.
4. Transform a conceptual data model into a relational data model.	Homework assignment and Multiple choice questions of exams.
5. Recognize roles of foreign keys in a relational database.	Multiple choice questions of exams.
6. Recognize the benefits and costs of the normalization.	Homework assignment and Multiple choice questions of exams.
7. Analyze an ill-designed database and normalize tables to the third normal form in order to create a well-designed database.	Homework assignment and Multiple choice questions of exams.
8. Recognize issues regarding the physical database design.	Homework assignment and Multiple choice questions of exams.
9. Implement physical database specifications in a relational database management system.	Homework assignments and Multiple choice questions of exams.
10. Develop queries to support individual user information requirements and applications.	Homework assignment and Multiple choice questions and Problem solving questions of exams.
11. Develop triggers, stored procedures, and other relational database objects.	Homework assignments and Multiple choice questions of exams.
12. Connect applications with a relational database to retrieve, add, update and delete data in the database.	Homework assignments and Multiple choice questions of exams.
13. Recognize issues of multi-user database environments.	Multiple choice questions of exams.
14. Recognize methods commonly used by a database administrator to deal with issues of multi-user database environment.	Multiple choice questions of exams.

15. Recognize differences between transactional databases, analytical databases (data warehouse and data marts), XML and Big Data technologies such as NoSQL and Hadoop.	Multiple choice questions of exams.
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Tentative Schedule (Subject to change)		
Dates	Class Meeting Dates, Topics, and Reading Assignments	HW Assignment Due
Jan 7	Ch 1: Introduction & Difference b/w Transactional and Analytical DB	
Jan 9	Ch 1: Introduction & Difference b/w Transactional and Analytical DB	
Jan 14	Ch 2, 3, & 14: Conceptual DB Design (Class Diagram/ERD)	
Jan 16	Ch 2, 3, & 14: Conceptual DB Design (Class Diagram/ERD)	
Jan 21	Ch 2, 3, & 14: Conceptual DB Design (Class Diagram/ERD)	
Jan 23	Ch 2, 3, & 14: Conceptual DB Design (Class Diagram/ERD)	
Jan 28	Ch 2, 3, & 14: Conceptual DB Design (Class Diagram/ERD) & Ch 4: Logical DB Design (Relational Data Model, Foreign Keys)	
Jan 30	Ch 4 Logical DB Design (Relational Data Model, Foreign Keys, Normalization)	
Feb 4	Ch 4 Logical DB Design (Normalization) & Physical DB Design	#1-HW Assignment Due: Advantages of DB, Conceptual and Logical DB Design
Feb 6	Ch 8: Physical Database Design and Infrastructure	
Feb 11	Ch 8: Physical Database Design, Infrastructure, DBMS Security Features, Backups and Recovery	
Feb 13	Ch 5 & 6: Queries and Views	#2-HW Assignment Due: Normalization, Physical Design and Relational DB
Feb 18	Ch 5 & 6: Queries and Views	
Feb 20	Exam 1 (Ch1, 2, 3, 4, 12, HW 1, 2)	
Feb 25	Ch 5 & 6: Queries and Views	
Feb 27	Ch 5 & 6: Queries and Views	
Mar 10	Ch 5 & 6: Queries and Views	
Mar 12	Ch 5 & 6: Queries and Views	#3-HW Assignment Due: Queries
Mar 17	Ch 5 & 6: Queries and Views	
Mar 19	Ch 6 & 7: Stored Procedures, Triggers & Database in Applications	#4-HW Assignment Due: Queries
Mar 24	Ch 7: Database in Applications & Stored Procedures,	
Mar 26	Exam 2 (Ch 5, 6, 7, HW 2, 3, 4)	
Mar 31	Ch 7: Databases in Applications& Stored Procedures	Individual Report Reference List & Sample White Paper Due
Apr 2	Ch 7 & 8: Databases in Applications, Stored Procedures & Database Transactions	
Apr 7	Ch 7 & 8: Database Transactions, Concurrency Controls & Security Threats	
Apr 9	Ch 12, 9 ,10 & 11: Database Administration & Data Warehousing, Data Integration, Big Data Technologies, & Analytics	
Apr 14	Ch 9 ,10 & 11: & Data Warehousing, Data Integration, Big Data Technologies, & Analytics	Individual Research Paper Due
Apr 16	Ch 9 ,10 & 11: & Data Warehousing, Data Integration, Big Data Technologies, & Analytics	
Apr 21	Ch 9 ,10 & 11: & Data Warehousing, Data Integration, Big Data Technologies, & Analytics	
Apr 23	Ch 9 ,10 & 11: & Data Warehousing, Data Integration, Big Data Technologies, & Analytics	
Final Exam Apr 28 (T)	Exam 3 (Comprehensive: Ch1 through Ch14, HW 1 through 5 and Individual report) 12:30 pm - 2:45 pm at LH2210.	

Last Day to Drop/Withdraw without Academic Penalty is Friday, March 27.

-- The End --