

# ISM 5206 - Database Development and Management

## Spring 2023

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### Course Information

**Course Days/Times:** This is an online, asynchronous course

**Course Meeting Location:** Online

**Prerequisites:** None

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### Instructor Information

#### Dr. Ashley Bush

Department Chair & Sprint Professor of Management Information Systems

Business Analytics, Information Systems & Supply Chain Department

Florida State University

**Office:** Rovetta Business Building, Room 325

**Office hours:** I'm available to set up a Zoom session anytime you'd like to discuss something. Email me to set up a time.

**Contact information:** abush@fsu.edu (*Email is the best and quickest way to get in touch with me.*)

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### Course Description and Objectives

This course is designed to provide a comprehensive overview of the major issues underlying the organizational utilization of databases and database management systems. Theoretical, conceptual and practical concerns in the design and implementation of database systems are discussed. Upon completion of this course, you should be able to:

- Discuss why databases are important to organizations
  - Describe the parts of a database
  - Develop a conceptual database model
  - Develop a logical database model
  - Transform a data model into the appropriate normal form
  - Implement a relational database
  - Implement SQL commands to build and query a database
  - Discuss issues related to database administration, maintenance, and security
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### Required Materials

This course is based on a textbook, supplemental article readings, lectures delivered on the course Canvas site, and discussions on the course discussion board. For each unit, students are expected to read the assigned readings, read the lecture notes, actively participate in the online discussion, and complete the required quizzes/ assignments. A typical week runs **from Tuesday to the following Monday at 11:59pm EST**. Assignments, quizzes, and the discussion board are always due at the close of the unit on Monday at midnight.

**Course Textbooks & Readings** - The textbook for this class is:

*Database Systems: Introduction to Databases and Data Warehouses*

ISBN-13: 978-1943153190

Prospect Press; 1st edition (June 2, 2016)

Additional readings for some units will be posted on the Course Schedule on the Home page.

**Software** - This class will utilize two software packages (ERDPlus and FreeSQLdatabase) for the design and development of databases. They are both freely available and you will need to be able to install/run the software and set up a free online account to successfully complete the assignments and group project in this class. Details on accessing and using this software is available on the unit pages (please see the Schedule on the Home page).

**Lecture Notes** - Lecture notes have been developed for each unit to provide an overview for each topic, highlight key concepts, and provide pointers to additional materials. Since these notes are not intended to be a summary of the readings, you must read the assigned chapters and/or articles to gain a full understanding of the material.

**Discussion Board** - The class discussion board is an important and required component of this course. It is the primary mechanism for us to have an interactive discussion of concepts and ideas much as we would have in a traditional classroom setting. As such, the more each student participates, the more interesting and valuable the discussion becomes. Each unit will have its own discussion forum which you should visit, read, and post in each week (please see the Grading and Evaluation).

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### **Online Course Expectations**

This is a graduate-level online course and all coursework will be conducted online. As such, this requires the student to be highly motivated, diligent, and organized to ensure that all course objectives and deadlines are met.

Students are expected to:

- Review the course structure, content, and organization provided in Unit 1
- Complete your First Day Attendance and Introduction in Unit 1
- Make note of all due dates in the Course Calendar and submit all quizzes, discussion boards, exams, and assignments by the due dates
- Review the Discussion Board grading guidelines for details on grading and successful discussion board interaction
- Log into the course Canvas site at a minimum of 3 days per week, however, successful students will typically log in more frequently than that
- Respond to course emails (from students in your project group or the instructor) within 2 days

The instructor will:

- Log into the course Canvas site at a minimum of 3 days per week
- Respond to student emails within 24 hours (but often sooner)
- Grade assignments within one week of the due date (but often sooner)

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### **Professionalism**

In all course communication - email, discussion board, project group meetings, etc. - students are expected to always be professional and polite (including proper grammar, spelling, and a respectful tone) even when disagreeing with others.

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### **Grading and Evaluation**

Grades will be based on weekly discussion board participation, weekly quizzes/assignments, two exams, and a group project. The weekly discussion board, weekly quizzes/assignments, exams, and group project are due by midnight EST on Monday at the close of the unit in which they are assigned as indicated in the course schedule. Late assignments will not be accepted or graded. If you have extenuating circumstances that affect your ability to complete your work in a given week, please send me an email as soon as possible.

<b>Grading and Evaluation</b>
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Assignment	Percentage
Discussion Board Participation	30%
Weekly Quizzes	30%
Exam 1	15%
Exam 2	15%
Group Project	10%
<b>Total</b>	<b>100%</b>

Course letter grades will be determined using the following scale (incomplete grades will not be assigned):

Letter Grade	Points
A	100-93
A-	92.9-90
B+	89.9-87
B	86.9-83
B-	82.9-80
C+	79.9-77
C	76.9-73
C-	72.9-70
D+	69.9-67
D	66.9-63
D-	62.9-60
F	59.9-0

**Discussion Board Participation** - Each week you will receive a grade on your discussion board posts for the current unit. The discussion board is an integral part of this course. If your participation is consistently in the minimal contribution category (see below), you are not likely to be successful in this class. If you anticipate not being able to regularly participate, you should consider taking this class at a later time.

Your weekly discussion board posts are evaluated based on **quality, quantity, and timeliness**. Please note that there is no minimum number of posts that guarantees full credit. Instead, your overall weekly participation is evaluated as a combination of quality, quantity, and timeliness. Discussion board posts will be graded on a 3 point scale using the following criteria:

**Significant contribution posts (3 points)**

- are made in a timely manner that gives others an opportunity to read and respond (i.e., posts are made throughout the week **generally on three or more different days** and **an initial post is made by Thursday**; note that three posts on three days is not likely to earn full credit)
- contribute new information to the discussion by bringing in relevant ideas from outside the course including new perspectives or analysis of ideas
- elaborate on ideas of others (instructor, classmates, etc.) by sharing additional examples, adding further explanation, or synthesizing other's ideas
- connect ideas in previous units to the current unit
- are professional and polite even when disagreeing with others
- are grammatically correct

**Moderate contribution posts (2 points)**

- are made in a timely manner that gives others an opportunity to read and respond (i.e., posts are made throughout the week generally on two or more different days)
- contribute new information to the discussion by bringing in ideas from outside the course including new perspectives or analysis of ideas but the connections are unclear, not firmly established, or are not obvious
- elaborate on ideas of others (instructor, classmates, etc.) by sharing additional examples, adding further explanation, or attempting to synthesizing other's ideas but may lack depth, detail, or explanation
- rarely connect ideas in previous units to the current unit
- are professional and polite even when disagreeing with others
- are grammatically correct

**Minimal contribution posts (0 or 1 point)**

- are not made in a timely manner that gives others an opportunity to read and respond (i.e., majority of posts are made toward the end of the week or only on a single day)
- contribute little new information or novel ideas to the discussion, simply restate what others have posted, simply restate what the readings clearly articulate, or may be completely off topic
- are rudimentary and superficial (i.e., lack any degree of analysis or critique), and make limited or vague connections to ideas of others (instructor, classmates, etc.)
- rarely connect ideas in previous units to the current unit
- are professional and polite even when disagreeing with others
- contain grammatical errors

**Weekly Quizzes** - For most units where readings are assigned, you'll need to complete a short quiz (approximately 5 multiple choice questions) based on the readings for that unit or a short assignment. The quizzes are timed - **you'll have 10 minutes to complete them and only one attempt** - so be sure to read before starting the quiz. The quizzes are open book, open note but must be completed individually (i.e., you may not collaborate with anyone else on the quiz). Quizzes are due at the end of the unit in which they are assigned.

**Exam #1 & #2** - These exams will be a combination of multiple choice and short answer questions. The exams will be open book, open note but must be completed individually (i.e., you may not collaborate with anyone else on the exams). They will be timed and you'll take the exam via Canvas. Exam #2 is not cumulative (i.e., it will focus on material that we discuss after Exam #1) but will build on concepts covered on the first exam.

**Group Project** - You will work in groups of approximately 4-6 students each (final group size to be determined) on a group project which will have deliverables due throughout the semester. You will select your own groups. More details on the group project will be available on the Group Project page.

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**Technology Requirements**

Course content is accessible through Canvas. Students will need to be able to view videos, write and upload assignments, post to discussion boards, and take quizzes/exams. Each student is expected to have access to a sufficiently powerful computer (i.e., hardware), a reliable and stable internet connection, and appropriate software (i.e. an internet browser). To view the most current technology requirements, visit the [FSU Canvas Support site](#). FSU also provides several computer labs throughout its campus and FSU's computers meet all of the course's online technical requirements. Students who do not have [Adobe Acrobat](#)

[Links to an external site.](#) or [PowerPoint](#) software can download it for free or use a campus computer in order to open and view lecture notes and other course-related materials. Mobile devices may be used to view course content, upload assignments, and take quizzes/exams.

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### **Technology Support**

Help with Canvas is available by clicking on the Help menu located on the left-hand most menu on each student's Canvas menu. There are multiple ways to request help, including using any of the contact options below:

- Email: [canvas@fsu.edu](mailto:canvas@fsu.edu)
- Phone: 850.644.8004
- Website: [support.canvas.fsu.edu](http://support.canvas.fsu.edu)
- Hours: 8:00AM - 5:00PM EST; Monday - Friday

FSU's [ITS Service Desk](#) is the first point of contact for assistance with [ITS Services](#) at Florida State University. There are multiple ways to request help, including using any of the contact options below:

- [Submit A Service Center Ticket](#)
  - [Links to an external site.](#)
  - Phone: 850.644.HELP
  - Website: [fsu.edu/its-service-desk/](http://fsu.edu/its-service-desk/)
  - Hours: 8:00AM - 6:00PM EST; Monday - Friday
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### **College of Business Policies**

#### **College of Business Integrity Code**

The Florida State University College of Business expects all of its students, faculty, and staff to adhere to the highest standards of academic excellence, integrity, and to the norms of a serious intellectual community. We pledge that:

As business students and professionals

We understand and accept the

significance of integrity in

our language, actions, and work

With Seminole pride,

we choose to be responsible, honest,

trustworthy, caring, and fair

In business and in life,

we choose integrity

Students are expected to be familiar with and abide by the [Student Academic Honor Policy](#) which

outlines the University's expectations for students' academic work, and the [Student Conduct](#)

[Code](#) which informs students about their rights and responsibilities as members of the University

community. In addition, the College of Business expects all members of its community to be familiar

with and accept the moral norm of responsible freedom as outlined in the [FSU General Bulletin](#) and to

adopt the [Seminole Creed](#).

#### **College of Business Learning Goals**

1. Graduates will demonstrate the ability to think critically and manage risk and reward to solve global business problems.
2. Graduates will demonstrate the ability to use technology competently and effectively in global business applications.

3. Graduates will demonstrate in-depth knowledge of core business functions and be able to demonstrate the ability to integrate business functions in organizations.
4. Graduates will demonstrate the ability to communicate effectively, orally and in writing, individually and in teams.
5. Graduates will demonstrate an understanding of and sensitivity to culture, diversity, and professional and ethical responsibilities in business.

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## **University Policies**

### **Academic Honor Policy**

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at

<http://fda.fsu.edu/Academics/Academic-Honor-Policy>

### **Americans With Disabilities Act**

Florida State University (FSU) values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. FSU is committed to providing reasonable accommodations for all persons with disabilities in a manner that is consistent with academic standards of the course while empowering the student to meet integral requirements of the course.

To receive academic accommodations, a student:

1. must register with and provide documentation to the Office of Accessibility Services (OAS);
2. must provide a letter from OAS to the instructor indicating the need for accommodation and what type; and,
3. should communicate with the instructor, as needed, to discuss recommended accommodations.

A request for a meeting may be initiated by the student or the instructor.

Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Office of Accessibility Services has been provided.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the

Office of Accessibility Services

874 Traditions Way

108 Student Services Building

Florida State University

Tallahassee, FL 32306-4167

(850) 644-9566 (voice) (850) 644-8504 (TDD)

[oas@fsu.edu](mailto:oas@fsu.edu)

<https://dsst.fsu.edu/oas>

### **Confidential Campus Resources**

Various centers and programs are available to assist students with navigating stressors that might impact academic success. These include the following:

#### **Victim Advocate Program**

- University Center A, Rm. 4100
- (850) 644-7161
- Available 24/7/365
- Office Hours: M-F 8-5

- <https://dsst.fsu.edu/vap>

**University Counseling Center**

- Askew Student Life Center, 2nd floor
- 942 Learning Way
- (850) 644-8255
- <https://counseling.fsu.edu/>
- **University Health Services Health and Wellness Center**
- (850) 644-6230
- <https://uhs.fsu.edu/>

This syllabus provides a general plan for the course; deviations may be necessary.

[Please see the course Home page for a detailed schedule.](#)

## Schedule

Spring 2023						
ISM 5206 Database Development and Management						
<a href="#">Getting Started</a>		<a href="#">Syllabus</a>	<a href="#">Discussion Board</a>	<a href="#">Quizzes &amp; Exams</a>	<a href="#">Grades</a>	<a href="#">About Dr. Bush</a>
Unit	Week	Topic & Unit Page		Readings		
1	Jan 9 - Jan 16	<a href="#">Course Overview and Introductions</a>		- <a href="#">Syllabus</a>		
2	Jan 17 - Jan 23	<a href="#">Introduction to Databases and Data Management</a>		- Ch. 1		
3	Jan 24 - Jan 30	<a href="#">Entity-Relationship Modeling</a> <a href="#">Setting up your FreeSQLDatabase account</a>		- Ch. 2		
4	Jan 31 - Feb 6	<a href="#">Relational Database Modeling</a> *** Group Project Sign-up DUE ***		- Ch. 3 - <a href="#">Group Project</a>		
5	Feb 7 - Feb 13	<a href="#">Normalization</a>		- Ch. 4		
6	Feb 14 - Feb 20	<a href="#">Exam #1</a>				
7	Feb 21 - Feb 27	*** Group Project Milestone #1 DUE ***		- <a href="#">Group Project</a>		
8	Feb 28 - Mar 6	<a href="#">SQL - Part 1</a>		- Ch. 5		

Unit	Week	Topic & Unit Page	Readings
9	Mar 7 - Mar 13	<a href="#">SQL - Part 2</a>	- Ch. 5
	Mar 14 - Mar 20	<b>Spring Break Week</b>	- No assignments
10	Mar 21 - Mar 27	<a href="#">Database Implementation and Use</a>	- Ch. 6
11	Mar 28 - Apr 3	<a href="#">Data Warehousing</a>	- Ch. 7
12	Apr 4 - Apr 10	<a href="#">Data Warehouse and Data Mart Modeling</a>	- Ch. 8
13	Apr 11 - Apr 17	*** Group Project Milestone #2 DUE ***	- <a href="#">Group Project</a>
14	Apr 18 - Apr 24	Group Project Milestone #3 DUE *** Group Project Peer Reviews DUE *** *** Individual Group Member Evaluations DUE *** ***	- <a href="#">Group Project</a>
15	Apr 25 - May 1	<a href="#">Exam #2</a>	

Unless otherwise noted, all assignments, quizzes, and discussion board posts are due on Monday by midnight EST.

This schedule provides a general plan for the course; deviations may be necessary.