Course Syllabus

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IS340 Databases for Management V.01/09

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1. COURSE INFORMATION:

Contact Information:

Physical Office: UAH College of Business Room 371

Email Address: **atiya.avery@uah.edu** (mailto:atiya.avery@uah.edu)

Availability/Office Hours: By mutual appointment via e-meeting on Canvas, Google Hangouts, or Skype. Monday-Friday 8am-11pm.

Meeting day, time, and location: This course is a hybrid course which adopts an asynchronous online delivery format consisting of modules with deadlines in addition to scheduled in class meetings. When there are scheduled, in class meetings this course will meet in BAB 207 on either Tuesday or Thursday between 1:00pm and 2:20pm. The day that you meet is dependent on whether you are designated as "Silver" or "Blue". You designation is assigned by the university and cannot be changed. The room capacity and seating arrangements have been very carefully calculated and this course will abide by the universities mandated days. The blue group is composed of students with numbers from 0 to 4 and the silver group is composed of those with numbers from 5 to 9. The blue group attends class Monday and Tuesday while the silver group attends Wednesday and Thursday.

This course is a hybrid course with a completely online option and an option for students to meet in-person. In this course, there is no distinguishable difference regarding deliverable's between students who choose to take the course completely remotely and those who choose to come to class. Students can switch between either mode at anytime, for any reason, without prior, or any notice to me. Please keep in mind that the situation is fluid regarding the COVID19 pandemic and we may convert to a completely remote mode at anytime due to university mandate or for a number of other reasons including to meet the requirements of a quarantine, if requested. It is important to note that there is an intrinsic, qualitative, benefit for certain aspects of this course which you will gain by coming to class. You can also obtain this benefit if you choose to take the course remotely by being self-aware and proactive of your needs around learning and that you immediately reach out to me anytime you have a question or concern.

Important Course Dates:

This course has six due dates which correspond to the six primary modules. All assignments within that module need to be submitted by the due dates. It is important that you keep the suggested pace of the assignments in this course. No late assignments will be accepted under any circumstances including last minute technical difficulties. Please get in last minute questions 24 hours or more prior to the module deadline. Questions are answered in the order that they are received. Once the due date has passed the assignment submission will be closed. It is very important that you manage your time in this course and not work on the module at the last minute. It takes time to work through each assignment in the module.

Course Description:

This course focuses on organizing and managing the data resources of an organization using information technology. The course covers modeling and design of databases for organizations. It will also cover query, reporting and visualization of data for supporting decision making by managers. Students will be introduced to the technologies that support business analytics and basics of analytics.

Organization of Course/Instructional Methods:

This course adopts a hybrid delivery format. The course will be taught using multiple instructional methods. The class meets once every other week. The meeting dates will be denoted on the syllabus and a reminder announcement will be sent out on the week(s) that we meet.

It is important to understand that this is a fundamental course designed for sophomore to senior level business school-IS undergraduate students which include student's majoring in high-demand IS fields such as cybersecurity and analytics. You can expect to spend on average 9-12 hours a week on work in this course which is typical of IT courses. Depending on your background, motivation, and what we are working on, this may vary significantly between student's and also each week. Please be sure to manage expectations and allocate the appropriate amount of time that is needed for your success.

Module Due Dates

Module 1- January 29th, 11:59pm

Module 2- February 12th, 11:59pm

Module 3- February 26th, 11:59pm

Module 4- March 12th, 11:59pm

Module 5- April 2nd, 11:59pm

Module 6- April 23rd , 11:59pm

In-person Instruction Dates

January 19th or January 21st

January 26th or January 28th

February 2nd or February 4th

February 9th or February 1 1th- VIRTUAL WEEK- DO NOT COME IN!

February 16th or February 18th

February 23rd or February 25th

March 2nd or March 4th

March 9th and March 11th- VIRTUAL WEEK- DO NOT COME IN!

March 16th or March 18th

March 25th ONLY- EVERYONE CAN COME IN- TUESDAY IS A HOLIDAY. NO CLASS. Please signup to help manage capacity.

March 30th or April 1st

April 6th or April 8th- VIRTUAL WEEK DO NOT COME IN!

April 13th or April 15th

April 20th or April 22nd

Exam Dates

Midterm Exam - March 9th Online

Final Exam- April 29th Online

Course Objectives:

Upon completion of this course, the student will acquire:

1. An in-depth understanding of basic database concepts and differences between data and information
2. Practice in apply data modeling concepts for relational and entity modeling including how to logically work through conflicting design goals
3. An understand of advanced data modeling and normalization
4. Practice in applying SQL theory and syntax for DDL and DML
5. Install and configure a DBMS on a local machine and review and apply information from professional technical documentation
6. A real world database implementation for use in a professional portfolio

Course Materials:

Required:

Database Systems Design, Implementation, and Management (13th Edition), Carlos Coronel, Steven Morris, ISBN-13: 978-1337627900, ISBN-10: 1337627909

Sam's Teach Yourself SQL in 10 Minutes (4th Edition), Ben Forta, ISBN-13: 978-0672336072, ISBN-10: 0672336073

Recommended:

Free Developer Training Site: www.w3schools.com/sql

Discovering SQL : A Hands-on Guide for Beginners, by Alex Kriegel. Hoboken, NJ, USA: W rox, 2011. Free digital text should be available at UAH Library.

Additional Course Requirements:

A major component of this course is the design and implementation of a relational database model from scratch. The implementation must be accomplished with a database management system (DBMS). We will be utilizing MySQL in this course as it is freely available.

Regarding diagrams, conceptual models, figures (i.e. data modeling). It is acceptable to submit PDF's or embedded picture images of clear and very neat, handwritten diagrams, conceptual models, and figures on graph paper. Alternately, software packages such as **Visio** **(https://products.office.com/en-us/visio/flowchart-software)** and **Draw.io** **(https://www.draw.io/)** can also be used. **Draw.io** **(https://www.draw.io/)** is free and is a tool that I frequently use and it will be used in this course.

2. COURSE DELIVERABLE'S & ASSIGNMENTS

Evaluation and Grading:

Students will be evaluated based on 1) 7 Assignments 2) 4 coding exercises 3) 6 quizzes 4) Midterm and Final Exam 5) Guided Course Project . Additional details on these assignments are located in this syllabus. Grading for the course is cumulative (per assignment) and is as follows:

Assignments 18%

Coding Exercises 12%

Quizzes 20%

Structured Course Project Deliverable's 25%

Midterm Exam 12.5%

Final Exam 12.5%

The following grading scale will apply to the final course grade:

A = 90%–100%

B = 78%–89%

C = 65%–77%

D = 50%–64%

F = 0%–49%

Deliverable Descriptions:

Assignments

There will be 7 assignments corresponding with modules 0-3. The first assignment is a video introduction. The remaining 6 assignments are comprehensive, hands-on

exercises which reinforce course concepts. I will typically use our in-person class time to review and work through the assignments. A video recording will also be made

available to assist students as they work through the assignments if they are working remotely. Assignments can be submitted up to 2 times and the highest grade will be taken for the assignment grade. Assignments are intended to assist students with the retention of course concepts and to provide "hands on experience" for the purposes of the structured course project and midterm exam, and comprehensive final exam.

Coding Exercises

There will be 5 coding exercises corresponding to module 4 and module 5. The first 6 exercises will utilize the IDE that accompanies the textbook and requires an access code. These exercises allow students to repetitively learn SQL scripting with ample opportunities for feedback and practice. Coding exercises are intended to assist students with the retention of course concepts and to provide "hands on experience" for the purposes of the structured course project , midterm exam, and comprehensive final exam.

Quizzes

There will be 6 quizzes. The first quiz is the syllabus quiz. The remaining quizzes correspond with modules 1-5. Quizzes are intended to reinforce new vocabulary and concepts. Quizzes are open book/open note and can be taken up to 3 times with the highest grade being taken.

Structured Course Project

The structured course project enables students to demonstrate their ability to design and implement a real world relational database including composing and deriving queries. You are required to create and implement a database system based on the concepts learned in this course. The final deliverable for this project includes a video presentation of your project and a written executive report which includes the project deliverable's worked on throughout the semester.

Comprehensive Midterm and Final Exam

The midterm exam will cover modules 1-3 and is theoretical and conceptual in nature. The final exam is cumulative and the material is directly from information found in the required textbook, class lectures, and course deliverable's given throughout the semester. A review session will be held prior to the exam. There will be no makeup exams and missed exams will receive a 0.

3. ADMINISTRATIVE

Academic Integrity:

All assignments, exercises, and exams (unless otherwise specified) must be your own individual effort. You may share notes and discuss problems with other students, but all work submitted should be entirely your own. Students are expected to adhere to the Student Code of Conduct as noted in section 7 of the Student Handbook.

COVID19 Language:

All University faculty, staff, and students are expected to maintain a commitment to the health and safety of our campus community. Because of the current COVID-19 pandemic, specific health and safety standards are in place to minimize exposure and community spread on campus. In the interest of your health and safety and that of all UAH students, faculty and staff, the University reserves the right to change the mode of instruction or schedule of instruction at any time, based upon prevailing public health and other guidance. While the method of delivery may change, educational instruction and opportunities will continue.

All students must be familiar with and abide by the requirements outlined in the UAH Return to Campus Plan, UA System Comprehensive Health and Safety Plan, and

Interim Policy 02.01.71 Safety and Health Requirements for Presence on UAH's Campus During the COVID-19 Pandemic. Students must (1) wear a mask or face

covering **You are currently logged into Student View** *Resetting the test student will clear all history for this student,*

allowing you to view the course as a brand new student. **Reset Student Leave Student View**

at all times while participating in face-to-face class and while in all University buildings; (2) adhere to social distancing standards; and (3) comply with all other health and safety restrictions. A valid Charger Healthcheck passport will be required for entry before each class session.

If a student refuses to comply with the requirements, the student will be asked to leave the class and reported for a conduct violation. More information on these requirements and Charger Healthcheck system and screening can be found at https://www.uah.edu/return-to-campus . You are expected to visit the site and comply with all noted requirements related to in-person class attendance.

Other Notes:

1. This syllabus is subject to change with prior notice based upon the pace and needs of the class and other unforeseen circumstances. Any change or other information about the class will be announced during the class or on Canvas.
2. No cell phone communication during class. If you must text message, take/make a phone call, or check Facebook, please step out in the hallway. Cell phones may be used briefly to Google the definition of a word, for the calculator function, and class related activities only.
3. It is the student's responsibility to make sure that they are officially enrolled in the class, and that they maintain that status. Being a member of the Canvas list does not imply or guarantee that one is officially enrolled in the class.
4. Per University policy, it is the student's responsibility to obtain a UAH e-mail account. Canvas account and lab accounts may also be needed to complete the course. Check Canvas regularly as many important matters may be communicated through this channel.
5. If you have problems with course content, materials or projects, let me know as soon as possible. See me during office hours or send me an e-mail. UAH is committed to your academic success and offers many resources to assist you. For more information or assistance with any of your courses, contact the Student Success Center at

uah.edu/ssc or by clicking the "Student Success Center" navigation link in your Canvas course.

6. The norm for higher education is that each hour of class meeting time requires that you spend a minimum of 3 hours per hour of class time in reading and reviewing course related material. For IT related courses it can be higher.

7. Students with disabilities requiring academic accommodations should contact Disability Support Services at 256-824-1997 or by stopping by DSS in Wilson Hall room 128.

8. In the event that class is not able to meet at the regularly scheduled time in the scheduled location (for example, because of a weather event or power outage), that class session will be cancelled. In the unlikely event that multiple consecutive classes cannot meet, the first class session will be cancelled and the following class sessions will be made available in Canvas. We will use lecture recordings and Canvas as communication tools to ensure continuity of the course.

Class Etiquette:

1. Class meetings should be treated as business appointments. Be on time and prepared to contribute to class discussion. **No phones during class meetings** except for course-related activities.

2. The best way to communicate with me is through e-mail. Normally, you can expect a response within a 24 hour period. Multiple e-mails to get a faster reply will NOT work. While sending email your subject should have the following (SUBJECT: IS – COURSE -SECTION) or else I cannot guarantee that I have received or read your email. This applies to even if you email through Canvas.

3. Assigned reading before lectures is expected.

4. Please do not bring hot food to class.

5. Please turn off cell phones and other electronic communication devices during lectures, discussions, and examinations.

Student Resources:

The University of Alabama in Huntsville of fers a range of student services to enhance the experience of students. **You are currently logged into Student View** *Resetting the test student will clear all history for this student,*

allowing you to view the course as a brand new student. **Reset Student** **Leave Student View**

- **Student Support Services (https://catalog.uah.edu/undergrad/support-services/student-support-services/)** —Counseling Center, Disability Support Services, Student Health Services, Office of International Services, Multicultural Affairs, etc.

- **Academic Support Services (https://catalog.uah.edu/undergrad/support-services/academic-support-services/)** —Student Success Center, Tutoring, PASS, Academic Support Centers by College

- **M. Louis Salmon Library (https://www.uah.edu/library)** —Printed and Online Resources, Reference Services, Group Study Rooms, AV Resources, Printing Canvas Support—Call 844-219-5802 to report an issue with Canvas.

  OIT Help Desk—For technical support, contact the OIT Help Desk (**helpdesk@uah.edu (mailto:helpdesk@uah.edu)** ; 256.824.3333)

4. IS340 AS AN INTERNSHIP

For students currently or soon joining the job market it is important to keep your resume up to date with relevant skill-sets. This is important if you are new in field. This course will regularly update the skill-set's gained so that interested students can create line items on their resume. In addition, experiential assignments will be posted for those interesting in completing them. I will keep you updated if these will be considered extra credit opportunities.

Course Summary:

Date Details