Note:

Course content may be changed, term to term, without notice. The information below is provided as a guide for course selection and is not binding in any form, and should not be used to purchase course materials.
COURSE SYLLABUS

BMIS 325
DATABASE MANAGEMENT SYSTEMS

COURSE DESCRIPTION

The study of relational database architecture, design, access, administration and implementation in the context of various organizational environments. The course includes issues of data normalization, standard queries, and the use of popular relational and object technologies for building business-oriented applications. Assigned projects will provide hands-on experience with industry leading SQL and RDBMS tools and ER CASE tools currently popular in business and government settings. (Formerly ISYS 325 and CMIS 450)

RATIONALE

A foundation in database development is essential for a thorough understanding of information systems. This course introduces the fundamentals of database development and provides the student with a conceptual and practical application of database design.

I. PREREQUISITES

For information regarding prerequisites for this course, please refer to the Academic Course Catalog.

II. REQUIRED RESOURCE PURCHASE

Click on the following link to view the required resource(s) for the term in which you are registered: http://bookstore.mbsdirect.net/liberty.htm

III. ADDITIONAL MATERIALS FOR LEARNING

A. Computer with basic audio/video output equipment
B. Internet access (broadband recommended)
C. Microsoft Word
   (Microsoft Office is available at a special discount to Liberty University students.)
IV. **MEASURABLE LEARNING OUTCOMES**

Upon successful completion of this course, the student will be able to:

A. Discuss the relevance of course material and the use of technology to a biblical worldview (PLO 1 – R).

B. Describe the characteristics of business database management systems (PLO 2 – R).

C. Design a database that follows the rules of normalization and entity integrity using entity relationship diagrams (PLO 2 – I).

D. Create a functional business database from an entity relationship diagram (PLO 3 – I).

E. Generate queries using the Structured Query Language (PLO 2 – R).

F. Manage data using the Database Manipulation Language (PLO 2 – R).

G. Write advanced SQL to solve complex business problems (PLO 2 – I).

V. **COURSE REQUIREMENTS AND ASSIGNMENTS**

A. Textbook readings and lecture presentations/notes

B. Course Requirements Checklist

   After reading the Syllabus and Student Expectations, the student will complete the related checklist found in Module/Week 1.

C. Discussion Board Forums (4)

   The student is required to provide a thread in response to the provided prompt for each forum. Each thread must be at least 250 words and demonstrate course-related knowledge. For each thread, the student must support his/her assertions with at least 4 citations in current APA format. Acceptable sources include peer-reviewed journal articles, books, the course textbook, and the Bible. In addition to the thread, the student is required to reply to 2 other classmates’ threads. Each reply must be at least 100 words and incorporate at least 2 citations.

D. Homework (8)

   The student will complete 8 homework assignments. Each assignment will consist of a variable number of questions that are focused on the textbook readings. All homework assignments must be typed into a Word document, include screenshots, and be submitted using the link provided in the respective module/week’s assignments folder.

E. Research Paper

   The student will write a 2000-word research-based paper in current APA format, which focuses on a database topic of his/her choosing. The topic chosen must be approved by the instructor. The Research Paper will be completed in 3 parts; Topic Approval, References Page and Sentence Outline, and Final Draft. The
paper must include at least 7 references—one of which may be the textbook and the
other the Holy Bible. All other references must be from peer-reviewed sources.

F. CMS Project

The student will design and create a database project to meet a real-life need. The
project will be submitted in 2 separate phases, which include a design and
development phase with ER Diagram and tables and a data analysis phase with
advanced data mining queries. Screenshots must be included in both phases of
this project.

G. Quizzes (4)

Each quiz will cover the Reading & Study material for the modules/weeks in
which it is assigned. Each quiz will be open-book/open-notes, contain 20
multiple-choice questions, and have a time limit of 50 minutes.

H. Exams (2)

Each exam will cover the Reading & Study material for the modules/weeks that
have been covered to date. Each exam will be open-book/open-notes, contain 30
multiple-choice questions, and have a time limit of 1 hour and 30 minutes.

VI. COURSE GRADING AND POLICIES

A. Points

<table>
<thead>
<tr>
<th></th>
<th>Points</th>
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<tbody>
<tr>
<td>Course Requirements Checklist</td>
<td>10</td>
</tr>
<tr>
<td>Discussion Board Forums (4 at 40 pts ea)</td>
<td>160</td>
</tr>
<tr>
<td>Homework (8 at 20 pts ea)</td>
<td>160</td>
</tr>
<tr>
<td>Research Paper</td>
<td></td>
</tr>
<tr>
<td>Topic Approval</td>
<td>10</td>
</tr>
<tr>
<td>References Page and Sentence Outline</td>
<td>15</td>
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<tr>
<td>Final Draft</td>
<td>75</td>
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<tr>
<td>CMS Project: Phase I</td>
<td>150</td>
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<tr>
<td>CMS Project: Phase II</td>
<td>150</td>
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<tr>
<td>Quizzes (4 at 40 pts ea)</td>
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</tr>
<tr>
<td>Exam 1 (Modules 1–4)</td>
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<tr>
<td>Exam 2 (Modules 5–8)</td>
<td>60</td>
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<td><strong>Total</strong></td>
<td><strong>1010</strong></td>
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B. Scale

A = 900–1010   B = 800–899   C = 700–799   D = 600–699   F = 0–599

C. Policies

*Academic Dishonesty:* Students will undoubtedly collaborate on assignments and
help each other. However, submitted work must be original to the student. To
eliminate any suspicion of fraudulent collaboration, all communication between
students regarding assignments should be carried out in the Discussion Board so it
is open and documented.

*Assignment Guidelines:* All files submitted must be in a Word document.
**Extensions:** No extensions will be granted for this course. The student must complete all assignments within the allotted 8 modules/weeks.

D. Late Assignment Policy

If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.

Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1. Late assignments submitted within one week of the due date will receive a 10% deduction.
2. Assignments submitted more than one week late will receive a 20% deduction.
3. Assignments submitted two weeks late or after the final date of the class will not be accepted.
4. Late Discussion Board threads or replies will not be accepted.

Special circumstances (e.g. death in the family, personal health issues) will be reviewed by the instructor on a case-by-case basis.

E. Disability Assistance

Students with a documented disability may contact Liberty University Online’s Office of Disability Academic Support (ODAS) at LUOODAS@liberty.edu to make arrangements for academic accommodations. Further information can be found at www.liberty.edu/disabilitysupport.
**COURSE SCHEDULE**

**BMIS 325**


<table>
<thead>
<tr>
<th>MODULE/WEEK</th>
<th>READING &amp; STUDY</th>
<th>ASSIGNMENTS</th>
<th>POINTS</th>
</tr>
</thead>
</table>
| 1           | Mannino: chs. 1–2  
1 presentation  
1 website | Course Requirements Checklist  
DB Forum 1  
Homework 1  
Quiz 1 | 10  
40  
20  
40 |
| 2           | Mannino: ch. 5  
1 presentation  
1 lecture note  
1 website | DB Forum 2  
Homework 2 | 40  
20 |
|             |                 | Research Paper: Topic Approval | 10 |
| 3           | Mannino: ch. 6  
1 presentation  
1 lecture note | Homework 3  
Quiz 2 | 20  
40 |
| 4           | Mannino: ch. 3  
1 presentation  
1 lecture note  
1 website | DB Forum 3  
Homework 4 | 40  
20 |
|             |                 | Research Paper: References Page and Sentence Outline Exam 1 | 15  
60 |
| 5           | Mannino: ch. 7  
1 presentation | Homework 5  
CMS Project: Phase I  
Quiz 3 | 20  
150  
40 |
| 6           | Mannino: ch. 4  
1 presentation  
1 lecture note | Homework 6  
Research Paper: Final Draft | 20  
75 |
| 7           | Mannino: ch. 9  
1 presentation  
1 lecture note  
2 websites | DB Forum 4  
Homework 7  
Quiz 4 | 40  
20  
40 |
| 8           | Mannino: ch. 10  
1 presentation  
1 lecture note | Homework 8  
CMS Project: Phase II  
Exam 2 | 20  
150  
60 |

**TOTAL** 1010

DB = Discussion Board

**NOTE:** Each course week (except Module/Week 1) begins on Tuesday morning at 12:00 a.m. (ET) and ends on Monday night at 11:59 p.m. (ET). The final week ends at 11:59 p.m. (ET) on Friday.