

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

INFO 405

INFORMATICS INFORMATION SYSTEMS

COURSE DESCRIPTION

An examination of expert, bio, and clinical decision support systems and technology; management of data in database management systems; data mining; informatics systems analysis, design and implementation.

RATIONALE

This course analyzes data mining and decision support systems in informatics. Additionally students will discuss morals and ethics and how they apply to informatics. The characteristics and qualities of IT professionals in informatics will also be evaluated.

I. PREREQUISITE

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. Blackboard [recommended browsers](#)
- D. Microsoft Office

IV. MEASURABLE LEARNING OUTCOMES

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

- A. Integrate a biblical worldview within informatics.
- B. Synthesize decision support systems across each domain of informatics.
- C. Define the interpersonal and dynamics skill sets necessary for IT professionals.
- D. Outline the primary application domains of IT.
- E. Illustrate appropriate IT solutions to solve organizational challenges.

V. COURSE REQUIREMENTS AND ASSIGNMENTS

A. Textbook readings and lecture presentations

B. Course Requirements Checklist

After reading the Course Syllabus and [Student Expectations](#), the student will complete the related checklist found in Module/Week 1.

C. Discussion Board Forums (4)

Discussion boards are collaborative learning experiences. Therefore, the student is required to provide a thread in response to the provided prompt for each forum. Each thread must be at least 400 words and demonstrate course-related knowledge. In addition to the thread, the student is required to reply to 2 other classmates' threads. Each reply must be at least 300 words.

D. Group Discussion Board Forums (4)

The instructor will place the student into a group at the beginning of the course. For this collaborative discussion board, the student is required to provide a thread in response to the provided prompt for each forum. Each thread must be at least 400 words and demonstrate course-related knowledge. In addition to the thread, the student is required to reply to 2 other classmates' threads. Each reply must be at least 300 words.

E. Utilizing Informatics Project

Throughout the course the student will model a database management system that can be used to collect information on a health-related outcome or indicator. The student will complete the project in 6 parts:

Project Part 1

The student will define database record, field, and field data by writing a 3–4-page paper analyzing their chosen data set and summarizing the database's key structural components. At least 3 scholarly sources in current APA format must be used.

Project Part 2

The student will use his/her Excel spreadsheet and pivot table reports to write a 3–4-page paper that answers at least 11 questions on data frequency and database analysis. At least 3 scholarly sources in current APA format must be used.

Project Part 3

The student will use his/her Excel spreadsheet and pivot table reports to write a 3–4-page paper that answers questions on data means statistics. At least 3 scholarly sources in current APA format must be used.

Project Part 4

The student will use his/her own database to write a 3–4-page paper that answers questions on various population ratios and rates. At least 3 scholarly sources in current APA format must be used.

Podcast Creation

The student will create a 2–5-minute podcast to include a summary of his/her proposed system and an explanation of how the system will improve patient care and quality outcomes.

Final Project Report

The student will write an 8–10-page report that covers the previous steps of his/her project. At least 6 scholarly sources in current APA format must be cited.

Final Project Presentation

The student will create a 10–15-slide presentation in Microsoft PowerPoint from the standpoint of an informatician. The student will follow specifications to provide information regarding his/her database system. At least 6 scholarly sources in current APA format must be cited.

VI. COURSE GRADING AND POLICIES

A. Points

Course Requirements Checklist	10
Discussion Board Forums (4 at 25 pts ea)	100
Group Discussion Board Forums (4 at 25 pts ea)	100
Utilizing Informatics Project	
Project Part 1	100
Project Part 2	100
Project Part 3	100
Project Part 4	100
Podcast Creation	100
Final Project Report	200
Final Project Presentation	100
Total	1010

B. Scale

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

C. 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

INFO 405

MODULE/ WEEK	READING & STUDY	ASSIGNMENTS	POINTS
1	Loshin: ch. 8 1 presentation 1 website	Course Requirements Checklist	10
		Class Introductions	0
		DB Forum 1	25
2	Loshin: ch. 9 1 presentation	Group DB Forum 1	25
		Utilizing Informatics Project – Project Part 1	100
3	Loshin: ch. 10 1 presentation	DB Forum 2	25
		Utilizing Informatics Project – Project Part 2	100
4	Loshin: ch. 11 2 websites 1 presentation	Group DB Forum 2	25
		Utilizing Informatics Project – Project Part 3	100
5	Loshin: ch. 12 1 presentation	DB Forum 3	25
		Utilizing Informatics Project – Project Part 4	100
6	Loshin: ch. 13 1 presentation	Group DB Forum 3	25
		Utilizing Informatics Project – Podcast Creation	100
7	Loshin: ch. 14 1 presentation	DB Forum 4	25
		Utilizing Informatics Project – Final Project Report	200
8	Loshin: ch. 15 1 presentation	Group DB Forum 4	25
		Utilizing Informatics Project – Final Project Presentation	100
TOTAL			1010

DB = Discussion Board

NOTE: Each course module/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 module/week ends at 11:59 p.m. (ET) on **Friday**.