

## CSCI 5303 - DECISION SUPPORT SOFTWARE WITH APPLICATIONS

**CREDIT HOURS:** 3

**PREREQUISITES:** COSC 1301 or CSCI 1302 or BCIS 1305; MTH 1342

**GRADE REMINDER:** Must have a grade of C or better in each prerequisite course.

### CATALOG DESCRIPTION

Operating systems, spreadsheets, graphing, statistical analysis and interpretation, database management systems, network environment, current topics in computing support for decision making.

### PURPOSE OF COURSE

To provide the student with the knowledge of and practice in using contemporary software for decision support in business.

### EDUCATIONAL OBJECTIVES

Upon successful completion of the course, students should be able to:

1. Design and produce advanced, user friendly, error free electronic spreadsheets.
2. Integrate Visual Basic macros in spreadsheet applications and database applications.
3. Use electronic spreadsheets for statistical analysis.
4. Audit electronic spreadsheets for errors.
5. Export, import, and convert data files from one type of application to another.
6. Describe the process of designing and implementing a decision support system.

### COURSE CALENDAR

This course meets for a minimum of 37.5 lecture contact hours during the semester. Students have significant weekly reading assignments. Students are expected to complete weekly homework assignments, quizzes, and 2-3 periodic exams in addition to the final exam. Students are expected to prepare for any class assignments or quizzes over the material covered in class or in the reading material. Successful completion of these activities requires at a minimum six additional hours of outside of classroom work each week.

### CONTENT

**Hours**

Orientation: .....	2
Course requirements, exams and grading	
Review of computer terminology	
Overview of application software in business environment	
Spreadsheets.....	20
Review of elementary Excel functions & operations	
Graphing	
Linear Regression	
Design principles and error detection/avoidance	
Database operations (Sort, Query, Table)	

Key macros, macro library	
Pivot Tables	
Filtering data	
Transferring and sharing data among applications	
The use of Visual Basic in business applications	
Decision Support Systems / Databases .....	18
Review of business decision-making process	
Applying knowledge to business decisions	
The role of decision support systems in business	
The process of building a decision support system	
Tools for building a decision support system	
Executive information systems	
The use of Visual Basic in decision support systems	
Exams.....	5
	TOTAL
	45

**REFERENCES**

Freund, Starks Shelly Cashman Microsoft® Office 365 & Excel 2016: Comprehensive, 1st Edition, Course Technology, 2017

Last, Pratt Shelly Cashman Microsoft® Office 365 & Access 2016: Introductory, 1st Edition, Course Technology, 2017