CSIT 126: INTERMEDIATE SPREADSHEETS AND DATABASE

1. Course Information

Subject
CSIT - Computer Science/ Information Technology

Course Number
126

School
Science, Technology, Engineering, Mathematics

Course Title
Intermediate Spreadsheets and Database

2. Hours

Semester Hours
3.00000

Lecture
3

Lab
0

Practicum
0

3. Catalog Description

For display in the online catalog
This course expands on the introductory spreadsheet and database concepts presented in Integrated Office Software. Applications include the use of personal computers and integrated software (Microsoft Excel, Access) to solve contemporary non-discipline specific information processing problems. Open lab time required.

4. Requisites

Prerequisites
CSIT 123

Corequisites
NONE

5. Course Type

Course Fee Code
3

Course Type for Perkins Reporting
vocational (approved for Perkins funding)

6. Justification

Describe the need for this course
This is a business elective course in the AAS Business program.

7. General Education

Will the college submit this course to the statewide General Education Coordinating Committee for approval as a course, which satisfies a general education requirement?
No

If the course does not satisfy a general education requirement, which of the following does it satisfy:
Elective

8. Consistency with the Vision and Mission Statements, the Academic Master Plan, and the strategic initiatives of the College

Please describe how this course is consistent with Ocean County College's current Vision Statement, Mission Statement, Academic Master Plan, and the strategic initiatives of the College:

	Add item
1	Offer comprehensive educational programs that develop intentional learners of all ages and ensure the full assessment of student learning in these programs. (Mission Statement)
2	Foster educational innovation through effective teaching-learning strategies, designed to develop and nurture intentional learners who are informed and empowered. (Vision Statement)
3	Employ technology and learning outcomes assessment to ensure student success in an increasingly diverse and complex world. (Vision Statement)
4	Prepare students for entrance into the workforce and/or for successful transfer to other educational institutions. (Academic Master Plan)
5	Seek to empower students through the mastery of intellectual and Practical Skills. (Academic Master Plan)
6	Challenge students to transfer information into knowledge and knowledge into action. (Academic Master Plan)

9. Related Courses at Other Institutions

Comparable Courses at NJ Community Colleges

Institution
Rowan College of South Jersey

Course Title
“T” Applications on the Microcomputer

Course Number
CS 102

Number of Credits
3

Institution
Middlesex County College

Course Title
INTERMEDIATE PC APPLICATIONS WITH PROGRAMMING

Course Number
CSC 106

Number of Credits
3

Institution
Passaic County CC

Course Title
Microcomputer Software 2

Course Number
CIS 126

Number of Credits
3

Transferability of Course

Georgian Court University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
IS224 (COMPUTING INFO SYSTEMS IN BUSINESS), 3 credits	EC (ELECTIVE CREDIT)	

Kean University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CPS1032, MICROCOMPUTER APPLICATIONS, 3 Credits	Major	

Monmouth University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CS001, (100 LEVEL COMP SCIENCE ELECT)	Elective	

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
INTR99088, (GENERAL EDUCATION COURSE), Elective, 3 Credits	GenED	

Rutgers - New Brunswick, Mason Gross School of the Arts

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Will not transfer

Stockton University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CSISEC, COMP. SCIENCE & INFO SYS ELECTIVE, 3 Credits	Elective	

10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Create spreadsheets that integrate with other Windows programs and the World Wide Web.
CLO2	Create spreadsheets utilizing: data validation, decision making functions, table manipulation functions and manipulating lists and pivot tables; information from multiple worksheets and workbooks; to perform what-if analysis and the scenario manager to create summary reports; and goal seek and solver to determine best solutions.
CLO3	Create spreadsheets utilizing database functions.
CLO4	Enhance spreadsheets with customized menus, toolbars and interactive macros.
CLO5	Create databases utilizing: input masks, data validation criteria and lookup tables to validate user input; pattern matching, list matching and parameter in selection queries; and action queries and self joins.
CLO6	Customize databases reports to add calculated and conditional fields, group totals and embedded and linked objects.
CLO7	Customize the database to provide web-enabled information.
CLO8	Customize database forms by utilizing macros, command buttons, dialog boxes, list boxes, GUI, function and event procedures.

11. Topical Outline

(include as many themes/skills as needed)

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
TO1	Spreadsheets (Microsoft Excel) 1) Review a) Cell address b) Formulas c) Functions d) Formatting e) Charting	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO2
TO2	Lists a) Sorting and Searching b) Maintaining c) Summarizing	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO1, CLO2, CLO3, CLO4, CLO5, CLO6
TO3	Integration a) Linking and Embedding b) World Wide Web	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO1, CLO2, CLO3, CLO4, CLO5
TO4	Programming a) Data Validation b) Decision Making Functions c) Financial Functions d) Macros e) Summarizing Data From Multiple Worksheets f) Lookup Tables and Functions	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO1, CLO2
TO5	Problem Solving a) Data Tables b) What-if Analysis – Scenario Manager c) Best Solution - Solver	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO1, CLO2, CLO4
TO6	Database a) Importing Data b) Queries c) Web Queries	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO1, CLO2, CLO3, CLO4
TO7	Application Development a) Interactive Macros b) Customized Toolbars and Menus	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO1, CLO2, CLO4
TO8	Database (Microsoft Access) 1) Review a) Fields, b) Indexing c) Relationships (1 to 1, 1 to many) d) Forms e) Reports	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO5, CLO6
TO9	Field Properties a) Input Masks b) Format c) Validation Rules d) Table Lookup	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO8, CLO9, CLO10, CLO11, CLO13
TO10	Selection Queries a) Multiple Selection Queries b) Pattern Matching c) List of Values Matching d) Parameters	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO5, CLO6
TO11	Customized Forms a) Format Properties b) Forms and Subforms c) Filtering	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO5, CLO6, CLO8

TO12	Customized Reports a) Calculated and Conditional Fields b) Groups and Aggregate Functions c) Embedded and Linked Objects	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO5, CLO6, CLO8
TO13	Integration a) Exporting to Excel b) Creating Web-Enabled Information	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO5, CLO6, CLO7, CLO8
TO14	Additional Queries a) Crosstab Queries b) Action Queries c) Self-Join Queries d) SQL e) Using Functions	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO5, CLO6, CLO8
TO15	User Interface a) Macros b) Command Buttons, Dialog and List Boxes c) GUI d) Functions and Event Procedures	Case Studies, Projects, Reading, Lecture	Hands-on Exams / Case Problems	CLO5, CLO6, CLO8

12. Methods of Instruction

In the structuring of this course, what major methods of instruction will be utilized?
Class lecture/discussion, demonstrations, labs and student projects.

13. General Education Goals Addressed by this Course (this section is to fulfill state requirements)

Information

_____

_____

_____

Technological Competency
Yes

Related Course Learning Outcome
CLO1-CLO8

Related Outline Component
TO1-TO15

Assessment of General Education Goal (Recommended but not limited to)
Hands-on Exams / Case Problems

_____

_____

_____

_____

_____

_____

_____

Independent/Critical Thinking
Yes

Related Course Learning Outcome
CLO1-CLO8

Related Outline Component
TO1-TO15

Assessment of General Education Goal (Recommended but not limited to)
Hands-on Exams / Case Problems

14. Needs

Instructional Materials (text etc.):
Appropriate textbooks and/or open educational resources will be selected. Contact the department for current adoptions. Class notes, presentations, software, and online materials.

Technology Needs:
College portal and/or college distance learning platform and/or textbook or Instructor Website.

Human Resource Needs (Presently Employed vs. New Faculty):
Presently employed

Facility Needs:
Computer lab equipped with necessary software to accommodate each student. Ideally a computer-equipped podium with a connect projector (for demonstrations)

15. Grade Determinants

The final grade in the course will be the cumulative grade based on the following letter grades or their numerical equivalents for the course assignments and examinations

A: Excellent

B+: Very Good

B: Good

C+: Above Average

C: Average

D: Below Average

F: Failure

I: Incomplete

R: Audit

For more detailed information on the Ocean County College grading system, please see Policy #5154.

16. Board Approval

History of Board approval dates
Revised: December 1990; February 27, 1996; April 30, 1996; December 1998; May 4, 2004; Feb. 28, 2006; March 8, 2006
Board of Trustees Approval Date: December 11, 2006
Board of Trustees Approval Date: March 26, 2012
Board of Trustees Approval Date: February 25, 2013
Board of Trustees Approval Date: March 26, 2020