

# CSE 1111 (Approved): Introduction to Computer-Assisted Problem Solving

## Course Description

Problem solving techniques using productivity software; spreadsheets, formulas, conditional logic; relational databases, relational algebra; word processing; data presentation; graphics.

**Prior Course Number:** CSE 101

**Transcript Abbreviation:** Intr Cmp Prob Solv

**Grading Plan:** Letter Grade

**Course Deliveries:** Classroom, Greater or equal to 50% at a distance

**Course Levels:** Undergrad

**Student Ranks:** Freshman

**Course Offerings:** Autumn, Spring

**Flex Scheduled Course:** Never

**Course Frequency:** Every Year

**Course Length:** 14 Week

**Credits:** 3.0

**Repeatable:** No

**Time Distribution:** 2.0 hr Lec, 2.0 hr Lab

**Expected out-of-class hours per week:** 5.0

**Graded Component:** Lecture

**Credit by Examination:** No

**Admission Condition:** No

**Off Campus:** Never

**Campus Locations:** Columbus, Lima, Mansfield, Marion, Newark

**Prerequisites and Co-requisites:**

**Exclusions:** Not open to students with credit for CSE 1112 or CSE 1113 or CSE 101 or CSE 105 or CSE 200

**Cross-Listings:**

**The course is required for this unit's degrees, majors, and/or minors:** No

**The course is a GEC:** Yes

**The course is an elective (for this or other units) or is a service course for other units:** Yes

**Subject/CIP Code:** 14.0901

**Subsidy Level:** Baccalaureate Course

## Course Goals

Be familiar with computer basics - hardware, software, OS, and communications.
Be familiar with using spreadsheets to solve problems - including relative/absolute cell referencing, boolean logic, reference functions and financial functions.
Be familiar with basic concepts of a relational database and use querying tools to obtain needed data.
Be familiar with using and integrating word processing and presentation graphics tools.
Be familiar with basic concepts about how the internet works.
Be familiar with applying computational skills to problems involving algebra and geometry in practical situations (i.e., direct contribution to the learning goals and objectives in the GEC quantitative and logical skills category).

## Course Topics

Topic	Lec	Rec	Lab	Cli	IS	Sem	FE	Wor
Computer basics	1.5		1.5					
Excel - writing formulas using simple functions and relative/absolute cell addressing	1.5		1.5					
Excel - using Boolean logical functions - AND,OR, NOT, IF	4.0		3.0					
Excel - Solving problems using multiple worksheets	2.0		1.5					
Excel - using a LOOKUP function, using financial functions, charts.	4.0		4.0					
Understanding relational database concepts; Access;	5.0		4.0					
Powerpoint, object linking; Word, mail merge;	3.0		3.0					
How the Internet works; simple webpages.	1.0		1.0					

## Representative Assignments

Logging into the system, file management, email and web browsing
Solving problems using simple Excel functions and relative/absolute cell referencing
Solving problems using multiple worksheets and financial functions
Designing your own worksheet solutions to problems - including reference functions
Creating tables in MS Access; querying databases.
Using Word, Powerpoint.
Final project: integrating all tools to solve a business related problem

## Grades

Aspect	Percent
Lab assignments	20%
Homeworks	12%
Class participation	2%
Pop quizzes	6%
Midterm	20%
Final project	10%
Final exam	30%

## Representative Textbooks and Other Course Materials

Title	Author
<i>Shelly Cashman Series for Microsoft Office Bundle Including SAM Software</i>	Shelly Cashman

## ABET-EAC Criterion 3 Outcomes

Course Contribution		College Outcome
***	a	An ability to apply knowledge of mathematics, science, and engineering.
**	b	An ability to design and conduct experiments, as well as to analyze and interpret data.
**	c	An ability to design a system, component, or process to meet desired needs.
	d	An ability to function on multi-disciplinary teams.
**	e	An ability to identify, formulate, and solve engineering problems.
	f	An understanding of professional and ethical responsibility.

Course Contribution		College Outcome
*	g	An ability to communicate effectively.
	h	The broad education necessary to understand the impact of engineering solutions in a global and societal context.
*	i	A recognition of the need for, and an ability to engage in life-long learning.
	j	A knowledge of contemporary issues.
***	k	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Prepared by:** Bruce Weide