



# AMERICAN COLLEGE

## CSC415 COMPUTER SCIENCE PROJECT II

### ECTS Course Syllabus

<b>Code</b> CSC415	<b>Title</b> Computer Science Project II	
<b>ECTS Credits</b> 12	<b>Department</b> Computer Science	<b>Instructor</b>
<b>Semester</b> Fall, Spring	<b>Cycle</b> First	<b>Language of Instruction</b> English

### Description

The Computer Science Project II is the second part of a capstone project for the senior year. Students during CSC414 Computer Science Project I and this course complete an individualized learning experience. Beginning with a driving question, students will research, work with an academic supervisor and complete a project, which will then officially present to their supervisor. This course will showcase most of the techniques and experience students have gained while studying their BSc in Computer Science.

### Learning outcomes

By the end of the course, students are expected to:

- apply the theoretical knowledge gained in previous computer science courses in order to implement, test and deploy a software product;
- demonstrate the ability to develop and focus on one topic in writing assignments and present ideas in an organized, logical and coherent form;
- demonstrate the ability to develop and focus on one topic in speaking assignments and present ideas in an organized, logical and coherent form;
- have the knowledge, skills, and attitudes to become: self-directed, lifelong learners, flexible workers complex thinkers and effective communicators;
- demonstrate organizational, time management and communication skills;
- critically examine, investigate and prepare project reports; and
- demonstrate the ability to use Standard English grammar, punctuation, spelling and usage.

**Prerequisite(s):** CSC414

### Learning methods and educational activities

Meetings, project proposal preparation, discussions, research activity, writing project work, project work oral presentation, independent and private study.

**Teaching hours:** 0

### Assessment methods and weight

Project:	100%
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### Grading system

90-100	<b>A</b>	85-89	<b>B+</b>	80-84	<b>B</b>	75-79	<b>C+</b>
70-74	<b>C</b>	65-69	<b>D+</b>	60-64	<b>D</b>	0-59	<b>F</b>

## Content

A project in the area of Computer Science is chosen by the student, subject to their supervisor's approval, who performs analysis, design, implementation and, if appropriate, test of the project and present a written report upon which s/he orally examined. The project work is supervised by a member of the Computer Science department.

<b>Week 1 -9</b>	<b>Implementation &amp; Testing</b> 1. Implementation issues: The software development environment is described in this section (programming language, programming tools, interface implementation, hardware requirements). 2. Testing: This section describes the effort and the type of tests that were conducted in order to uncover software errors. Specific sections can be written for unit testing, integration testing, validity testing, system testing (if the software has been developed as part of a larger system), and acceptance testing (if the software has been developed for a customer). Any known bugs or other related issues about the delivered software should also be included in this section.
<b>Week 10 - 11</b>	<b>Conclusions And Recommendations For Future Work</b> Every step of the development methodology should be critically analyzed to deduce conclusions about the processes of customer communication, requirements elicitation, analysis, design, coding, and testing. All difficulties that were encountered should be documented, as well as the procedures that were followed to overcome these difficulties. Comparison with alternative development methodologies should be given wherever it is appropriate. This section should also discuss future recommendations about potential extensions of the developed software.
<b>Week 12-13</b>	Project presentation

When grading the Computer Science project, the supervisor will consider a number of issues, including but not limited to:

- Quality, clarity, and thoroughness of proposal and implementation of software developed
- The general professionalism shown by the student, this includes; scheduling of meetings, timeliness handing in proposal revisions, attitude towards committee and colleagues, and studio work habits and time management
- Mastery of materials
- Problem-solving abilities
- Ability to work independently
- Ability talk about the work conducted
- The improvement made from the beginning of the semester.

## Student workload

Activity	Hours
Meetings	10
Independent Study and Research Activity	30
Implementation and Testing	200
Project Report Preparation	45
Presentation preparation	14.5
Presentation	0.5
<b>Total</b>	<b>300</b>