Module Code | CSU22BC1
---|---
Module Name | Systems Analysis and Design I
ECTS Weighting | 5 ECTS
Semester taught | Semester 2
Module Coordinator/s | Dave Lewis

**Module Learning Outcomes**

Upon completion of the module, the student will:

- **LO1.** Be familiar with the concepts of a system and what it means to design, develop and implement a large information system in an organization;
- **LO2.** Appreciate the problems facing the systems analyst developing information systems in demanding and changing environments;
- **LO3.** Become familiar with the major phases of the system development lifecycle;
- **LO4.** Understand the typical organizational structure of large software development projects, including management issues, the roles of key stakeholders, notably those of the business and systems analysts;
- **LO5.** Be able to elicit, organize and document the functional requirements and constraints of information systems;
- **LO6.** Be able to produce structured specifications of basic systems from systems analysis;
- **LO7.** Produce representations of system designs using diagrammatic modeling tools;
- **LO8.** Be able to appropriately choose and correctly discriminate between the available tools for software projects having a range of characteristics;

**Module Content**

This module introduces students to the theory and practice of designing, creating and maintaining large software systems within demanding and changing business environments. Modern enterprises are critically reliant on information systems to support their business needs. The module covers the standard business and engineering processes, approaches and disciplines applied in industry today. Topic covered include:

- Introduction to systems thinking.
- Fundamentals of traditional and modern system development lifecycle (SDLC) methodologies;
- Initiating and planning software development projects;
- Requirements elicitation and specification techniques;
- Systems analysis through functional and data modelling tools;
- Design of database, interactive, distributed and internet systems;
- Implementing and maintaining a system;
- Supporting case studies;
Teaching and Learning Methods

4 hours of lectures and class exercises per week

Assessment Details

<table>
<thead>
<tr>
<th>Assessment Component</th>
<th>Brief Description</th>
<th>Learning Outcomes Addressed</th>
<th>% of total</th>
<th>Week set</th>
<th>Week due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Assessment 1</td>
<td>Individual Assignment: requirements analysis</td>
<td>LO1,2,5,6,7</td>
<td>15%</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Continuous Assessment 2</td>
<td>Individual Assignment: UI and object design</td>
<td>LO1,2,5,6,7</td>
<td>15%</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Exam</td>
<td>End of semester exam</td>
<td>LO1-LO8</td>
<td>70%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reassessment Details

Examination (2 hours, 100%)

Contact Hours and Indicative Student Workload

<table>
<thead>
<tr>
<th>Contact Hours (scheduled hours per student over full module), broken down by:</th>
<th>44 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>lecture</td>
<td>33 hours</td>
</tr>
<tr>
<td>Class exercises</td>
<td>11 hours</td>
</tr>
<tr>
<td>Independent study (outside scheduled contact hours), broken down by:</td>
<td>72 hours</td>
</tr>
<tr>
<td>preparation for classes and review of material (including preparation for examination,)</td>
<td>50 hours</td>
</tr>
<tr>
<td>completion of assessments (including examination, if applicable)</td>
<td>22 hours</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>116 hours</strong></td>
</tr>
</tbody>
</table>

Recommended Reading List


Module Pre-requisites

none

Module Co-requisites

none

Module Website

Blackbaord

Last Update

31 July 2019 by Dave Lewis

---

2 [TEP Guidelines on Workload and Assessment](#)