Subject Description Form

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>COMP 2021</th>
</tr>
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<tbody>
<tr>
<td>Subject Title</td>
<td>Object-oriented Programming</td>
</tr>
<tr>
<td>Credit Value</td>
<td>3</td>
</tr>
<tr>
<td>Level</td>
<td>2</td>
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<tr>
<td>Pre-requisite/ Co-requisite/ Exclusion</td>
<td>Pre-requisite COMP 1011</td>
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### Objectives

The objectives of this subject are to:

1. To introduce students the basic elements of object-oriented programming
2. To teach students how to program computer systems using an object-oriented programming language
3. To familiarize students the tools that streamline object-oriented development

### Intended Learning Outcomes

Upon completion of the subject, students will be able to:

**Professional/academic knowledge and skills**
(a) Use an object-oriented programming language to solve computer problems
(b) Use an object-oriented programming language to build computer systems

**Attributes for all-roundedness**
(c) build computer systems in groups and develop group work
(d) cooperate with team members in problem solving

### Subject Synopsis/Indicative Syllabus

1. Object-based programming. Concept of objects and classes. Correspondence between software objects and real-world objects. Constructors and destructors.
5. Multiple inheritance/Interfaces
6. Use of UML to model OO projects.

### Teaching/Learning Methodology

This subject emphasizes both the conceptual elements in computer programming and practical experiences. A high-level, object-oriented programming language, such as C++ or Java, will be used for illustration purposes.

The lectures will be used to deliver course material that will be
practiced/reinforced during the tutorials/labs. Individual/Group projects will be given to give students hand-on development experience.

**Assessment Methods in Alignment with Intended Learning Outcomes**

<table>
<thead>
<tr>
<th>Specific Assessment Methods/Tasks</th>
<th>% weighting</th>
<th>Intended subject learning outcomes to be assessed</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Assignments, Tests &amp; Projects</td>
<td>60%</td>
<td>✓</td>
</tr>
<tr>
<td>Final Examination</td>
<td>40%</td>
<td>✓</td>
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<tr>
<td>Total</td>
<td>100%</td>
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A pass in both the continuous assessment and final examination portions are required to pass this subject.

**Student study effort expected**

- **Class Contact:**
  - Lecture: 39 hours
  - Tutorial/Lab: 13 hours
- Other student study effort:
  - Assignments, Quizzes, Projects, Exams: 68 hours
  - Total student study effort: 120 hours

**Reading list and references**