1. **Title of the module**

EENG3190 (EL319) Engineering Analysis

1. **School or partner institution which will be responsible for management of the module**

Engineering and Digital Arts

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 4

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Autumn or Spring

1. **Prerequisite and co-requisite modules**

Pre-requisite: EL318 - Engineering Mathematics

1. **The programmes of study to which the module contributes**

BEng Electronic and Communications Engineering

BEng Electronic and Communications Engineering with a Year in Industry

BEng Computer Systems Engineering

BEng Computer Systems Engineering with a Year in Industry

1. **The intended subject specific learning outcomes.  
   On successfully completing the module students will be able to:**

1. Demonstrate familiarity with aspects of applied calculus.

2. Demonstrate fluency in the use of these mathematical tools in problem solving.

1. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to:**

1. Demonstrate knowledge of the appropriate mathematical tools necessary for the further study of electronic, mechanical and computer systems

2. Demonstrate fluency in the use of these tools in problem solving.

1. **A synopsis of the curriculum**

This module expands the introductory mathematics covered in EL318 and provides students with the appropriate mathematical tools necessary for the further study of electronic, mechanical and computer systems. The main emphasis of the course is in applied calculus, which isused to solve real-world engineering problems.. The lectures are supported by assessed examples classes, taken in small groups.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

* Engineering Mathematics, K.A. Stroud, Palgrave, ISBN 0-333-91939-4
* Advanced Engineering Mathematics, K.A Stroud and D.J. Booth. Palgrave; 4th Revised edition ISBN 978-1403903129

1. **Learning and teaching methods**

Total contact hours: 34

Private study hours: 126

Total study hours: 150

1. **Assessment methods**
   1. Main assessment methods

* Exam 3 hours 60%
* Class assignments 40%

13.2 Reassessment methods

Reassessment instrument: like-for-like

1. **Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Module learning outcome** | 8.1 | 8.2 | 9.1 | 9.2 |
| **Learning/ teaching method** |  |  |  |  |
| Private Study | **x** | **x** | **x** | **x** |
| Lectures | **x** | **x** | **x** | **x** |
| Example classes | **x** | **x** | **x** | **x** |
| **Assessment method** |  |  |  |  |
| Exam | **x** | **x** | **x** | **x** |
| Class assignments | **x** | **x** | **x** | **x** |

1. **Inclusive module design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

Mathematics is by its nature an international subject where the terminology, notation and methodology is the same across the world. This course uses international recognised notation.

**FACULTIES SUPPORT OFFICE USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
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Revised FSO Jan 2018