

Course Syllabus

offered by College/School/Department of <u>Electrical Engineering</u> with effect from Semester B, 2022/2023

This form is for the completion by the <u>Course Leader</u>. The information provided on this form is the official record of the course. It will be used for the City University's database, various City University publications (including websites) and documentation for students and others as required.

Please refer to the Explanatory Notes on the various items of information required.

Prepared / Last Updated by:

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City University of Hong Kong Course Syllabus

offered by College/School/Department of Electrical Engineering with effect from Semester B, 2022/2023

Part I Course Overview

| Course Title: | Professional Internship Program |
|--|--|
| Course Code: | _EE4084 |
| Course Duration: | Three semesters (summer term included) |
| Credit Units: | 9 |
| Level: | <u>B4</u> |
| Proposed Area: (for GE courses only) | Arts and Humanities Study of Societies, Social and Business Organisations Science and Technology |
| Medium of Instruction: | English and other languages appropriate to the placement setting |
| Medium of Assessment: | English |
| Prerequisites : (Course Code and Title) | Nil |
| Precursors : (Course Code and Title) | Nil |
| Equivalent Courses: (Course Code and Title) | Nil |
| Exclusive Courses : (Course Code and Title) | EE4081 or EE4082 or EE4083 |

Part II Course Details

1. Abstract

This course aims to provide students with the opportunity to:

- a) appreciate a real working environment under the guidance of experts
- b) integrate the knowledge they acquired and apply it in a real work setting
- c) appreciate team work, group / organizational behaviour in a work environment
- d) gain real work experience, which will enhance their competitiveness in an increasingly challenging job market.

The program is conducted at the host company, whereby students are jointly supervised by the host mentor and the EE supervisor. Students joining this program are not allowed to take the option of Part B (Industrial Project) of EE4080 Project or its equivalent at the same company.

2. **Course Intended Learning Outcomes (CILOs)**

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of *performance.*)

| No. | CILOs# | Weighting* (if applicable) | Discov curricu learnin (please approp | very-en ilum rel ig outco e tick priate) | riched lated omes where |
|---------|--|----------------------------------|---|--|----------------------------------|
| | | | A1 | A2 | A3 |
| 1. | Aware of the role and functioning of engineering and technology in a company by observing its operations and discovering the practice and standards. | | \checkmark | \checkmark | |
| 2. | Demonstrate an attitude to propose solution for problems through independent investigation and solve problems by applying proper engineering tools and analysis techniques | | \checkmark | \checkmark | \checkmark |
| 3. | Demonstrate discipline and responsibility in a team | | | | \checkmark |
| 4. | Aware of professional ethics in a real-life environment | | \checkmark | \checkmark | |
| * If we | eighting is assigned to CILOs, they should add up to 100%. | 100% | | | |

If weighting is assigned to CILOs, they should add up to 100%.

[#] Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.

A3: **Accomplishments** Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

| TLA | Brief Description | CILO No | CILO No. | | | Hours/week |
|--|--|--------------|--------------|--------------|--------------|-------------|
| | | 1 | 2 | 3 | 4 | (if |
| | | | | | | applicable) |
| Workshop training placement/ personal | Pre/post-placement training seminars and reflection through writing interim and final reports | | \checkmark | | \checkmark | |
| coaching/ other activities | The actual placement work, supervision and feedback from company supervisor | \checkmark | \checkmark | \checkmark | \checkmark | |
| | Supervision and feedback from academic supervisor | | \checkmark | | \checkmark | |
| | Logbook, project presentation, company visits and interviews by CityU supervisors | | | | \checkmark | |

The placement should last for 12 months.

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

| Assessment Tasks/Activities | CILO No. | | | | Weighting* | Remarks |
|--------------------------------|---|--------------|--------------|--------------|------------|---------|
| | 1 | 2 | 3 | 4 | | |
| Continuous Assessment: 1009 | Continuous Assessment: 100% | | | | | |
| Placement report for actual | | | | \checkmark | N/A | |
| placement work in training | | | | | | |
| company and technical | | | | | | |
| knowledge/skills acquired | | | | | | |
| in the internship programme | | | | | | |
| Written report on the role of | \checkmark | \checkmark | \checkmark | | N/A | |
| engineer in professional | | | | | | |
| society | | | | | | |
| Feedback from academic | \checkmark | \checkmark | \checkmark | | N/A | |
| supervisor based on | | | | | | |
| company feedback, and | | | | | | |
| visit & placement report | | | | | | |
| Examination: <u>N/A</u> | | | | | - | • |
| * The weightings should add up | * The weightings should add up to 100%. N/A | | | | | |

Remark: The assessment is purely on a pass/fail basis. To pass the course, the comments by the company mentor on the logbook must be at the satisfactory level or above.

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

To pass the course, students are required to pass all the four assessment tasks below.

| Assessment Task | Criterion | Pass (P) | Poor |
|-----------------------|---|-----------|--------------|
| | | | (F) |
| Actual placement work | Ability to complete and fulfill all job | Reach the | Not even |
| | duties | required | reaching |
| | | level | margin level |
| Placement report | (a) Ability to report and reflect on | Reach the | Not even |
| | placement learning experience | required | reaching |
| | (b) Ability to describe the project | level | margin level |
| | work in the company | | |
| | (c) Ability to describe the technical | | |
| | knowledge/skills acquired in the | | |
| | internship programme | | |
| Written report on the | Ability to describe and reflect on the | Reach the | Not even |
| role of engineer in | role of engineer in professional | required | reaching |
| professional society | society | level | margin level |
| Feedback from | Ability to achieve in overall | Reach the | Not even |
| company supervisor | performance | required | reaching |
| | | level | margin level |
| Feedback from | Ability to perform in placement work, | Reach the | Not even |
| academic supervisor | report and reflection | required | reaching |
| | | level | margin level |

Details criteria for Placement Report:

Students are required to obtain "C" in all subcategories (a-c) in order to get a "Pass" in the placement report.

| Criterion | | Α | В | С | D | F |
|----------------|----------------|-----------------|----------------|---------------|---------------|--------------|
| (a) Ability to | Time | Consistently | Generally able | Generally | Occasionally | Unable to |
| report and | management | able to | to accurately | able to | able to | estimate |
| reflect on | | accurately | estimate time | estimate | estimate time | time |
| placement | | estimate time | required to | time | required to | required to |
| learning | | required to | complete | required to | complete | complete |
| experience | | complete tasks. | tasks. | complete | tasks | tasks |
| | | | | tasks. | | |
| | | A11 / | A11 / | A11 / | 0 11 | TT 11 / |
| | Observation | Able to | Able to | Able to | Occasionally | Unable to |
| | and reflection | regularly | observe and | observe and | able to | observe and |
| | | observe and | reflect on the | reflect on | observe and | reflect on |
| | | reflect on the | assigned tasks | the assigned | reflect on | the assigned |
| | | assigned tasks | and beyond | tasks | assigned | tasks |
| | | and beyond | | | tasks | |
| | . | | | | | ** 11 |
| | Independence | Pursue academic | Engage in | Recognize | Occasional | Unable to |
| | | interests and | relating | academic | recognition | relate |
| | | their relation | academic | relation with | of academic | academic |
| | | with an | work with an | | relation with | knowledge |
| | | | | | | in an |

| | | industrial environment | industrial environment | an industrial environment | an industrial environment | industrial environment |
|--|--|---|--|---|--|--|
| (b) Ability to describe the project work in the company | Responsibility | Able to take ownership and consistently able to anticipate consequences of their own action | Able to take ownership and able to anticipate consequence of their own actions | Little sense of ownership And occasionally anticipates consequence s of their own actions | Avoids responsibiliti es and does not anticipate consequences of their own actions | Takes no responsibilit ies and consistently being told what to do |
| | Initiative | Completes the required work, and goes a step further by actively pursuing what can be improved upon | Completes the required work, identifies areas of improvements and make suggestions | Completes the required work and identifies areas of improvemen ts | Completes only the required work | Takes no initiative |
| | Company structure and their function | Able to describe the company structure and the functions of each department, their importance and interdependence | Able to describe the company structure and the functions of each department and their importance | Able to describe the company structure and the functions of each department | Able to describe the company structure | Unable to describe the company structure and their importance |
| (c)Ability to describe the technical knowledge/ skills acquired in the | Work flow management | Consistently able to procure necessary tasks taking into account stake holders | Generally able to procure necessary tasks taking into account stake holders | Generally able to procure necessary tasks | Occasionally able to procure necessary tasks | Unable to procure necessary tasks |
| internship programme | Software skills | Consistently able to seek out and use the necessary IT skills to efficiently and accurately complete tasks | Generally able to seek out and use the necessary IT skills to efficiently and accurately complete tasks | Generally able use the necessary IT skills to complete tasks | Generally able use IT skills to complete tasks | Unable to use the basic IT skills to do tasks |

| Classroom | Independently | Adapts and | Applies | Vague | Unable to |
|-----------------|------------------|---------------|--------------|---------------|-----------|
| transfer skills | adapts and | applies | theories and | references to | relate |
| | applies theories | theories and | methodologi | the solution | classroom |
| | and | methodologies | es for | of problems | skills |
| | methodologies | for new | problems | | |
| | for difficult | problems | | | |
| | problems | | | | |
| | | | | | |

Extracted from FYP Report writing rubric

| Areas of | Excellent | Good | Basic | Unacceptable | No progress (F) |
|--|---|---|---|---|-----------------|
| Achievements | 4 points | <u>3 points</u> | 2 points | 1 point | 0 |
| Organization | | C Points | - Points | | , |
| 1)Organization | Written work is well organized and easy to understand. | The organization is generally good, but some parts seem out of place. | The organization is unclear. | The report is disorganized to the extent that it prevents understanding of content. | |
| Writing style and gr | ammar | | • | | |
| 1)Spelling and grammar | The work has been thoroughly spell-checked and proofread. | There are a few spelling and grammatical errors. | There is more than one spelling or grammatical error per page. | There are frequent mis-spelled words and serious grammatical errors, indicating that time was not taken to spell- check and proofread | |
| 2)Writing style | The writing style indicates planning that makes reading easy and the flow of material makes understanding easy. | The writing style indicates planning that makes reading easy. | The writing style is readable, but difficult to follow. | The writing style is difficult to read and the writing disorganized, making understanding a difficult task. | |
| Presentation of mat | erial | | | | |
| 1)Visual, example; graphs/diagrams. | Visual aids are used frequently. They are easy to read and understand, and are of professional quality. | Visual aids are good, but a few are sloppy or difficult to read. | Most visual aids are sloppy and hard to read. | There are few visual aids, and those used are carelessly prepared. | |

| MILO | How the course contribute to the specific MILO(s) |
|------|--|
| 4 | An ability to function on multi-disciplinary teams |
| 5 | An ability to identify, evaluate, formulate and solve engineering problems |
| 6 | Awareness of professional and ethical responsibilities |
| 7 | An ability to communicate effectively |
| 8 | Knowledge in contemporary issues and an awareness of the impact of engineering solutions in a broad, global and societal context |

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

N/A

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1. N/A

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1. N/A

3. Course Fulfilment

Students successfully completed the Internship Program will earn 9 Credit Units in their academic records at the University, which can be used to waive the Major requirements of EE3012/EE2066 Engineers in Society, EE4080 Project or its equivalent, and Engineering Training EE4090 or (EE4096 and EE4097) or its equivalent.