# EVALUATION FORM FOR EXTERNAL EXAMINATION - PROJECT (E) 448

| | |
|---|---|
| **Candidate's initials, surname and SU#** | |
| **Project title** | |

| **Examiner's name (print)** | **Examiner's signature** |
|---|---|
| | |

**Comments / Opmerkings:** _____

_____

_____

_____

_____

_____

**Preliminary Mark** (From convener form) ☐ **Final Mark** (External) ☐ ***Tick (✓) to verify pass*** ☐ ***Tick (✓) to verify fail due to ELO(s) not satisfied*** ☐

**Are the ELOs satisfied at the level expected of a recent BEng graduate?**

| **Exit Level Outcome (ELO)** | **Assessment Items** | ***Tick (✓) either Yes or No for each ELO*** | |
|---|---|---|---|
| | | **Yes** | **No** |
| 1. Problem Solving (identify, assess, formulate and solve convergent and divergent engineering problems). | • Identify problem + solution criteria;<br>• Identify engineering info required for solution;<br>• Formulate solution approaches;<br>• Model/ analyze solutions;<br>• Evaluate solutions;<br>• Formulate / present the solution. | [ ] | [ ] |
| 2. Application of Scientific and Engineering Knowledge | • Use Engineering knowledge and methods<br>o Formal analysis and modeling;<br>o Communicate concepts, ideas and theories;<br>o Reasoning and conceptualizing using components;<br>o Dealing with uncertainty.<br>• Use Physical laws as foundation<br>o Formal analysis and modeling;<br>o Reasoning and conceptualizing using physical principles.<br>• Use techniques, principles and laws of engineering | [ ] | [ ] |

| | | | |
|---|---|---|---|
| | science<br>o Identify and solve open-ended engineering problems;<br>o Work across engineering disciplinary boundaries (shared fundamental knowledge). | | |
| 3. Engineering Design (procedural and non-procedural design and synthesis of components, works, products and processes) | • Identify/formulate problem to satisfy user needs, applicable standards, code of practice and legislation;<br>• Plans and manages the design process;<br>• Acquires and evaluates requisite knowledge;<br>• Performs design tasks, quantitative modeling and optimization;<br>• Evaluate alternatives (judgment, implement ability and techno economic analysis);<br>• Assesses impact and benefits;<br>• Communicates design logic and information. | **[ ]** | **[ ]** |
| 4. Investigations, experiments and data analysis (design and conduct investigations and experiments) | • Plan and conduct investigations/ data analysis;<br>• Conducts critical literature search;<br>• Performs analysis;<br>• Select and use equipment/ software;<br>• Analysis/ interprets information from data;<br>• Draws conclusion (evidence);<br>• Communicates purpose, process and outcomes in report. | **[ ]** | **[ ]** |
| 5. Engineering Methods, Skills and Tools, including Information Technology (methods, skills and tools, including those based on information technology) | • Uses method, skill and tools by:<br>o Selecting/ assessing the applicability/ limitations of the methods, skills and tools;<br>o Properly applying the method, skill or tool;<br>o Critically testing and assessing the results produced.<br>• Creates computer applications | **[ ]** | **[ ]** |
| 6. Professional and Technical Communication (effective oral and written communication) | • Written communication:<br>o Uses appropriate structure, style and language for purpose/ audience;<br>o Uses effective graphical support;<br>o Applies engineering methods of providing information;<br>o Meets the requirements of the intended audience.<br>• Oral communication:<br>o Uses appropriate structure, style and language;<br>o Uses appropriate visual materials;<br>o Delivers fluently;<br>o Meets the requirements of the intended audience. | **[ ]** | **[ ]** |
| 9. Independent learning ability (independent learning through well-developed learning skills) | • Reflects on own learning and determines requirements and strategies;<br>• Sources and evaluates information;<br>• Assesses comprehends and applies knowledge acquired outside formal instruction;<br>• Critically challenges assumptions and embraces new thinking. | **[ ]** | **[ ]** |