ECE4094/ECE4095 Project A/B Assessment Rubric

Facet of work	Example Tasks	Fail	Pass	Credit/Distinction	High Distinction
Understanding of project	Objectives stated Define context and scope of project Project Significance	The student does not understand the project topic.	The student demonstrates understanding of the main points of the project topic.	The student demonstrates clear understanding of their project topic and the work presented meets criteria specified in the project description.	The student demonstrates **clear understanding of their project topic** and **formulates the project plan with minimal guidance** from their supervisor in an **innovative fresh perspective**.
Review of literature	Identifying technical challenges Usage of references and citations Identify broader (social and/or cultural) implications of project	Technical challenges are vaguely specified. Consults minimal sources or sources considered inappropriate to problem solve and justify approach used. Little or no evidence of awareness of project's ethical / social / cultural implications	Technical challenges are clearly identified and explained. Consults some appropriate sources to problem solve and justify approach used. Some evidence of awareness of project's ethical / social / cultural implications	Technical challenges are clearly identified and explained in context. Consults numerous appropriate sources to problem solve and justify approach used. Clear evidence of awareness of project's ethical / social / cultural implications	Technical challenges are **clearly identified, explained in context and justified**. Consults **numerous appropriate** sources to problem solve and justify approach used **systematically and comprehensively**. Extensive evidence of awareness of project's ethical / social / cultural implications
Project execution	Risk Analysis Project planning Delivery of project objectives Documentation	In the opinion of the review panel the project does not have adequate technical content or does not meet reasonable expectations of effort for a project of this size and length. Only trivial or partial completion of project objectives. No ongoing documentation of project progress	Outcomes of the project are not clearly evident to the review panel. Demonstrations are not repeatable in a reasonable time frame. The student presents work which almost meets the specifications set out in the various milestones. Little ongoing documentation of project progress	Demonstration of project outcomes is evident to the review panel, repeatable with some difficulty but still in line with most predictions and expectations made in the various milestones. The student presents work which meets the specifications set out in the various milestones. Clear ongoing documentation of project progress	Project **outcomes are clearly evident** to the review panel, **repeatable**, **in line with predictions and expectations** made in the various milestones. The student presents work which **demonstrates significant initiative and original thought** in their solution to **achieve all specifications** outlined in the report. Clear and professional level ongoing documentation of project progress

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Problem solving approach	Formulation of solutions to identified problems Identification of strengths and weaknesses of project approach	The solutions provided demonstrate very unsystematic approaches to problem solving. Project goals are not met. No evidence of critical reflection and evaluation of the strengths and weaknesses of the project approach	The solutions provided demonstrate reasonable attempts to solve the project problems. Adequate but unsophisticated and unwise use of technical skills to solve the problem. Some evidence of critical reflection and evaluation of the strengths and weaknesses of the project approach	The solutions provided demonstrate good adherence to professional practice and problem solving. Evidence of critical reflection and evaluation of the strengths and weaknesses of the project approach	The **elegant solutions** provided demonstrate **significant initiative** and **evidence of original thought** in the resolution of the project goals. Clear evidence of critical reflection and evaluation of the strengths and weaknesses of the project approach
Oral communication	Project video Final presentation interview	Unengaging, laboured, disjointed Questions answered poorly, with little evidence of knowledge of the project.	Presents a 3 minute executive summary of project Mildly engaging, need improvements for the future Questions answered adequately, with some evidence of knowledge of the project.	Presents a 3 minute executive summary of project Contains live footage of project members throughout the video. Strongly engaging, well presented Questions answered adequately, with clear evidence of knowledge of the project.	Presents a 3 minute executive summary of project **Contains live footage of project members throughout the video**. **Exceptionally engaging, brilliantly presented**, highly professional **Questions answered confidently and convincingly, with clear evidence of knowledge an impact of the project**.
Written communication	Requirements analysis Design specification Progress report Final Report Poster	The reports and milestones are not clearly written, are grammatically incorrect and poorly documented. The report is poorly formatted and fails to meet the conventions.	The reports and milestones are adequately written, grammatically satisfactory and adequately documented, sufficiently meeting the criteria for writing reports. The report is adequately formatted and meets the conventions.	The reports and milestones are proficiently written, grammatically correct and accurately documented, and sufficiently meets the criteria for writing reports. The report is accurately and clearly formatted.	The reports and milestones are **clearly written, grammatically correct, well documented**, utilising **professional language** to meet all of the criteria for writing reports. Close attention has been observed to meet the **report formatting conventions at a professional standard**.

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Professional Skills	Professional interactions with supervisor and project stakeholders and industry. Project Journal	Misses many meetings with supervisor with no notice. Unresponsive email communication. Does not update progress in "Project Journal" on Moodle Does not attend ECSE Final Year Project industry night without special consideration	Punctually attends scheduled meetings with supervisor – reschedules in advance in case of inability to attend. Semi-responsive email communication (48 hour turnaround). Superficially updates project progress "Project Journal" posts on Moodle with little reflection. Attendance of the ECSE Final Year Project industry night.	Punctually attends scheduled meetings with supervisor – reschedules in advance in case of inability to attend. Responsive email communication (24 hour turnaround). Occasionally reflects on project progress and documents these in "Project Journal" posts on Moodle. Attendance of the ECSE Final Year Project industry night.	**Punctually attends scheduled meetings with supervisor** – reschedules in advance in case of inability to attend. **Responsive email communication** (24 hour turnaround). **Regularly (weekly) reflects on project progress and documents these in "Project Journal"** posts on Moodle. Attendance of the ECSE Final Year Project industry night.
Research based projects (if applicable)	Overall Project	Does not understand theoretical concepts related to the research project. Does not evaluate the outcomes of the research with previously established literature. No analysis of information collected and draws inappropriate conclusions unsupported by evidence.	Demonstrates weak understanding of theoretical concepts related to the research project. Flawed attempts to evaluate the outcomes of the research with previously established literature. Weak analyses of information collected and draws conclusions loosely supported by evidence.	Demonstrates adequate understanding of theoretical concepts related to the research project. Chooses appropriate methods to evaluate the outcomes of the research with previously established literature. Adequately analyses information collected and draws appropriate conclusions supported by evidence.	Demonstrates **strong understanding of theoretical concepts** related to the research project. Chooses appropriate methods to **evaluate the outcomes of the research with previously established literature**. Carefully analyses information collected and **draws appropriate conclusions supported by evidence**. **Outcomes of research are likely to result in an externally peer reviewed publication** in a conference or journal as an additional output.

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Hardware based project (if applicable)	Overall Project	Demonstrates poor knowledge of circuit design and construction practice Circuits are not robust and unreliable	Demonstrates little awareness of good circuit design and construction practice. Circuits are functional and reliable, but produced only on breadboards.	Demonstrates some awareness of good circuit design and construction practice. Circuits are soldered neatly on Veroboard/PCBs with logically colour-coded wiring according to standard conventions.	Demonstrates **strong awareness of good circuit design and construction practice**. **Circuits are soldered neatly on Veroboard/PCBs** with logically colour-coded wiring according to standard conventions.
Software based project (if applicable)	Overall Project	Code is poorly organized and very difficult to read, with no comments The project does not work or has many bugs No versioning control software used	Code is readable only by someone who knows what it is supposed to do, has few comments The project produces correct results for most computational specs, has a few bugs Appropriate use of software versioning control tools and code repositories e.g. GitHub/Bitbucket or equivalent.	Code is organised, readable, and has good comments. The project produces the correct results and displays them correctly for almost all computational specifications Appropriate use of software versioning control tools and code repositories e.g. GitHub/Bitbucket or equivalent.	**Code is well organised and very easy to understand**, with clear comments both in-line and in headers The **project meets all of the computational specifications**. **Appropriate use of software versioning control tools** and code repositories e.g. GitHub/Bitbucket or equivalent.