

CMPE399/499 Summer Training – Assessment Guideline

Assessment

Assessment is based on the following criteria:

1. Student Evaluation by Company Supervisor (SE)
2. CMPE399/499 Summer Training Report (STR)
3. Format and Style of the Report (FSR)
4. Oral Presentation (OP)

Grading:

Students who receive at least 3 points from each of Questions 1.a, 1.b, and 1.c of SE complete their summer training successfully. Students who fail to do so are considered as “Unsuccessful” and receive F letter grade at the end of the semester. Such students are not required to submit a report or make oral presentations. Students who are “Successful” (who receive at least 3 points from each of Questions 1.a, 1.b, and 1.c of SE) are eligible to submit their summer training report and make an oral presentation of their summer training experience.

STR, FSR and OP are marked out of 65, 5 and 30 points, respectively, where, therefore, the overall grade is marked out of 100, according to the pre-specified guidelines. Oral presentation will be done in multiple sessions as classroom presentations. Attendance to at least 50% of the presentations is mandatory.

STR Content and Grading:

Introduction: (4 Points) Start your summer training report with an introductory section that will make a smooth beginning to the document. Briefly summarize the work you have done, the motivation behind it, and the significance of the work that you have done in the overall project. In the introduction section include the following:

- The student’s overall goal/ mission statement for the training activity.
- Expected learning outcomes.

Explanation of the organization of the rest of the report should also be added at the end of the section.

Company information and Training Environment: (14 Points) Have a section providing detailed information about the company and department where you did your training, its hardware/software systems and resources, its focus and project area, its organization, and your training environment. The name, address, telephone number, email address, and information about the education of your supervisor must be given (including the name of the university and department from which he/she graduated, and the year of graduation). Additionally, you can add the names of your team members and their backgrounds. In this section include also the following information about the company you worked within:

- Historical Background
- Organizational Structure
- Products/services
- Customers
- Engineering Units
- Industrial process
- Environmental and social impact
- Quality system
- Work Environment
- Standards, Regulations and Documentations
- Timeline

Assigned Tasks and Projects: (41 Points) This is the most important part of your report. The number of sections in this part, their titles, and their contents depend on the work that you have done and the information you would like to provide.

This part should include all relevant information about the following:

- The problem to be solved.
- Project requirements and customer needs.
- Literature review and data collection.
- Knowledge integration with course work.
- Learned tools and technologies
- Self-learning
- Work plan
- Implementation
 - Please include the following data if you have and permitted to share:
 - The algorithms/pseudo-code developed.
 - Hardware/software environment used.
 - Software tools used.
 - Design methods used and learned.
 - Testing methods and tools used and learned.
- Economic factors
- Ethical Issues
- Impact Analysis
- Evaluation

Please also include the following information additionally in this section:

- Project management methods and processes followed or observed.
- Any engineering standards that are followed or observed.
- Design, development, documentation and testing participated in or observed.
- Any training received, including seminars attended.
- Any configuration and/or maintenance tasks performed.

Detailed description of your own contribution and clear identification of the distinctions from others' work must be added at the end of the chapter.

Conclusion and Recommendations: (6 Points) Have a conclusion section where you summarize the work you have done. Clearly re-state your contribution, what you have learned, experienced and acquired. Be specific in relating these to what you have learned at TEDU. Please include the following information specifically in this section:

- Achievement of expected learning outcomes
- Recommendations to enhance future training in this company
- Recommendations to enhance future training of TEDU engineering students

FSR Content and Grading: (5 Points)

Your report should demonstrate an excellent understanding of all major topics presented and argued with clear links between successive ideas using superb organization from a capturing introduction to a clear conclusion that builds on and provides support to the subject matter. The needs of readers must be addressed correctly and their interest should be captured efficiently. You must be careful about presenting your content using a standard format that is free from spelling, grammar, punctuation or pronunciation errors, and makes frequent and effective use of fonts, headings, bullets, margins, and white spaces to enhance the content's visual appeal and increase readability. Figures, tables, drawings and other graphical illustrations must be contained in your report with appropriate captions and explanations. Please remember that using any copied information/material that is not cited is considered as plagiarism. Cite/give references to copied data appropriately using a standard format, e.g. (IEEE, AIAA, etc.)

- The report must be written in English.
- Number all pages, figures, drawings and tables.
- Each chapter should start on a new page.
- The report should have a cover page and table of contents (sample cover page can be found in our website and Moodle page).

- Times New Roman should be used with a font size of 11 and 1.5 line spacing.
- Min/max. number of pages are 5 and 25, respectively. References and Appendix sections can be added in maximum 5 numbers of pages.

OP: (30 Points)

Each student is required to present his/her report in front of an audience in 10 minutes. Additional 10 minutes will be used for questions and answers. It is mandatory to attend at least 50% of the presentation sessions. Students who do not attend at least 50% of the presentation sessions will get FX as the final grade.

Please remember that you will collect your presentation points from following items:

- Demonstrating an excellent understanding of the technical content
- Capturing the interest of audience and focus on their needs
- Incorporating graphical material with appropriate explanations
- Keeping the visual appeal of your presentation high
- Using reliable references to copied material

APPENDIX I: STR REGULATIONS AND RUBRIC

Item Evaluated		Expected	Points
Introduction	The student's overall goal/ mission statement for the training activity	A simple, clear, brief, positive, and correctly written statement, that describes the "big-picture" idea of why the student is interested to have training, what he wants to focus on, and what he needs to accomplish.	2
	Expected Learning outcomes	Three or more correctly written learning outcomes that describe specific, measurable, and realistic achievements to accomplish during the training experience. They relate to the job, represent the job functions and duties, assist in professional growth and development, relate to the student's course of study or major, and help to reach the overall goal of student's training experience.	2
The Company	Historical Background	Correctly written short description of the company/ establishment history.	1
	Organizational Structure	The organizational structure is presented in a clear way and suitable format.	1
	Products/ services	The products/ services of the company are clearly described and compared to similar products/ services in the market.	1
	Customers	Products/ services are associated to their customers and their expected needs.	1
	Engineering Units	Engineering units are described in details with their functions and organizational structure.	1
	Industrial process	The industrial process is fully described, with sufficient photos, figures, or graphical representations	1
	Environmental and social impact	The environmental and social impact of the company, its products, and its by-products are fully described including immediate and long-term issues involved on users and non-users locally and globally. A section on ethical issues is provided, with a discussion on how work related ethical issues are handled or managed at the company.	1
	Quality System	The quality system is fully described with sufficient photos, figures, or graphical representations.	1
The Training Environment	Work environment	The nature of the activities carried out by the department(s) or unit(s) where the major part of the training experience took place, is clearly described. Whether the function of the department is design, maintenance, R&D, project management, or anything else, the student is able to relate it to the activities of the whole company/ establishment.	2
	Standards, Regulations, and documentations	Paper work is clearly described with reference to applicable standards and regulations.	2
	Timeline	A time plan of the whole training activity is presented using standard project planning techniques such as Gantt charts, deployment charts, and critical path analysis.	2

Assigned Tasks/ Projects	Problem definition	The problem to be solved is clearly stated. Objectives are complete, specific, and concise. Customer needs are correctly identified and transformed into project requirements. All potential customers are identified and their needs are taken into consideration.	4
	Literature review and data collection	All pertaining information (including regulations, standards, and operational experiences) are identified and collected from a variety of credible sources. Information are reviewed and assessed with respect to their quality, validity and accuracy and presented using a standard and ethically referenced literature review format.	3
	Knowledge integration with course work	The problem to be solved is logically formulated. Prior knowledge of mathematics, science and engineering principles as well as discipline related courses and collected information are successfully integrated to address the problem.	4
	Learned tools and technologies	Detailed explanation of any new tools or technologies (e.g. libraries, software tools, programming environments) that were encountered during the summer training. Includes discussion on how these tools were learned, with the level of proficiency achieved.	4
	Self learning	Demonstration of self-learning during the summer training. Includes the mention of any sources and explanation of the sources discovered (e.g. Web sites, books, journals, experts, etc), and the part of the assigned task that these sources were used. Includes an evaluation why these sources were selected among the alternatives.	4
	Work plan	An effective work strategy is developed, including a plan of attack, decomposition of work into subtasks, balanced responsibilities of team members, an executable timetable and a justified project budget. Standard project planning techniques such as Gantt charts, deployment charts, and critical path analysis are used.	4
	Economic factors	Deep understanding of applied economic factors of related products and the impact they may have on the economy at large as well as long term trends.	4
	Implementation	The work carried out represents an engineering contribution similar to that carried by a professional engineer in the field and is well described	4
	Ethical issues	Ethical issues related to the work done are presented and discussed. Concrete examples of work-related ethical issues are demonstrated.	4
	Impact analysis	Related environmental, social, health and safety issues as well as anticipated hazards are deeply evaluated. Local and global, long term as well as short term benefits and risks on users and non users are analyzed and how they might impact the general acceptance of the results of the work done.	3
Evaluation	Performance of the final work compares favorably to customer requirements, pre-set outcomes, operational constraints, and existing products if any.	3	
Conclusions & Recommendations	Achievement of expected learning	The student is able to present convincing evidences that all of his Learning outcomes were achieved by the end of the training period.	2
	Recommendations to enhance future training in this company	Analysis of the achievement of the student's learning outcomes are used to develop specific rational recommendations to enhance the future student's training experience in this company.	2
	Recommendations to enhance future training of TEDU engineering students	The student's training experience is used to develop a set of rational, clear and precise recommendations to TEDU in order to enhance the future training of the engineering students.	2

APPENDIX II: FSR REGULATIONS AND RUBRIC

Written Communication Skills	Presentation of technical content	Demonstrate an excellent understanding of all major topics presented and argued with clear links between successive ideas using superb organization from a capturing introduction to a clear conclusion that builds on and provides support to the subject matter.	1
	Addressing needs of readers/audience	Present information that is readers/audience focused, organized to meet their needs, and falls within prescribed size or allocated time using engaging techniques to efficiently capture the interest of the readers/audience.	1
	Visual appeal	Present a content that follows standard/prescribed format, that is free from spelling, grammar, punctuation or pronunciation errors, and makes frequent and effective use of fonts, headings, bullets, margins, and white spaces to enhance the content's visual appeal and increase readability.	1
	Graphical communication skills	Effectively use serially numbered, self contained and well formatted figures, tables, drawings, or other graphical illustrations with appropriate captions that are suitably mentioned and discussed to enhance the content	1
	Credibility & authenticity	Use reliable and credible references/citations that follow standard format (IEEE, AIAA, ASME, etc.) to support the credibility and authenticity of the information presented without any sort of plagiarism or dishonestly copied material.	1

APPENDIX III: OP REGULATIONS AND RUBRIC

Oral Communication Skills	Presentation of technical content	Demonstrate an excellent understanding of all major topics presented and argued with clear links between successive ideas using superb organization from a capturing introduction to a clear conclusion that builds on and provides support to the subject matter.	6
	Addressing needs of readers/audience	Present information that is readers/audience focused, organized to meet their needs, and falls within prescribed size or allocated time using engaging techniques to efficiently capture the interest of the readers/audience.	6
	Visual appeal	Present a content that follows standard/prescribed format, that is free from spelling, grammar, punctuation or pronunciation errors, and makes frequent and effective use of fonts, headings, bullets, margins, and white spaces to enhance the content's visual appeal and increase readability.	6
	Graphical communication skills	Effectively use serially numbered, self contained and well formatted figures, tables, drawings, or other graphical illustrations with appropriate captions that are suitably mentioned and discussed to enhance the content	6
	Credibility & authenticity	Use reliable and credible references/citations that follow standard format (IEEE, AIAA, ASME, etc.) to support the credibility and authenticity of the information presented without any sort of plagiarism or dishonestly copied material.	6

APPENDIX IV: OP LEARNING OUTCOME DEFINITIONS

LO	Learning Outcome Definition
LO1	Communicate with technical and non- technical people orally and in writing to share knowledge.
LO2	Interpret foundational scientific, engineering, management and artistic concepts and principles.
LO3	Apply mathematical, statistical, computing and engineering concepts and tools to model and solve problems.
LO4	Follow current trends and developments in their fields to adapt to the changing environment, with and without guidance
LO5	Act professionally by following social, ethical and cultural responsibilities.
LO6	Design and implement a computer system, be it software or hardware or both, to serve specific needs in an efficient, interdisciplinary team work context.
LO7	Evaluate feasible solutions to complex engineering projects, based on economic, social and ethical constraints.