ENGR90037, ENGINEERING CAPSTONE PROJECT

Assessment Task 1 – Baseline Plan and Management

Rubric for Supervisors

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Part 1 – Team Submission of Baseline Plan (10 Marks)

1.1 The Project Charter

I recommend starting at 85% of maximum mark. If everything is done correctly the final mark is 85%. If the student goes above and beyond basic requirements, a bonus may be added. For any item not up to scratch marks are deducted. A bonus of 5 means impressive work" and a bonus of 10 means "better than I could have done it"

NOTE: Students present a seemingly endless variety of wrong versions of any given item. For any item listed below a deduction of 2 to 5 marks (say) can be made, with a suggestion for improvement

Charter	Suggested Deduction
Submission:	
Format not as specified.	5
Missing citation / reference	5
See guidelines - abbreviations should be explained on first occurrence.	2
Too vague	2
Presentation:	
Not suitable for senior management. Resubmit within 7 days for a score out of 70%	100
Major problems with spelling/grammar.	10
Minor problems with spelling/grammar.	5
All abbreviations should be spelled out at first occurrence.	5
Messy page breaks.	2
Red text left in	5
Author / Title:	

Missing.   10

Title does not convey what the project is about   5

Objective:

Missing.   15

Meaning is not clear.   10

A bit confusing or vague.   5

Could be briefer   5

Brief Description:

Missing.   15

The reader would probably have a problem understanding
this.   10

Too open-ended - a nice experimental investigation, not a
project   10

Description is somewhat confusing.   5

Not quite to the point of THIS project.   5

Needs Citation.   5

Scope (In and Out):

Missing.   10

Some ambiguity / vagueness.   5

Some items are not related to the Objective.   5

Out-of-Scope item included in work plan.   5

Does not cover the full Objective.   5

Should be a list of what you will deliver in order to achieve
your objective.   5

Stakeholders:

Missing.   15

Major problem.   10

Timing of Major Milestones:

Missing.   15

Some are not Milestones (SMARTPS)   5

Some are activities rather than Milestones   5

Some Capstone items missing (2 per item)   4

Should be phrased as milestones, not activities   5

Success Measurement Criteria:

Missing.	15
Not really measurable.	10
Some not conclusive	5
Too general to be demonstrated unambiguously.	5
Out-of-scope item(s) included	5
Requirement missed.	5
New requirement introduced.	5

Critical (Important) Success Factors

Missing.	15
CSFs do not include your routine processes which are under your (PM) control and therefore can be taken for granted. It includes only specific critical INPUTS or ACTIONS that are generally outside your direct control, but must arrive in good time, or the project is doomed.	5
Some are routine / under your control	5
A little vagueness in defining Input or Action, or something missing	5
Assumption not Input	5

Major Risks and Treatments:

Missing.	15
Many "Risks" are routine / generic	5
Doubtful whether risk is really in scope for this project	5
Doubtful whether risk is managed adequately	5
Risks are random hazards, not merely routine problems	5
Important risks not included	5
No need to raise this with senior management	2

Cost:

Missing.	15
Dollars not shown for labour costs.	15

Costs are way out	10
Mistake.	5
Supervisor hours - problem	5
Student hours - problem	5
See suggestions.	5
See suggestion.	2

Signatures:

Missing.	15

Note that physical signatures are not required because of Coronavirus issues. Just space for the signatures is adequate.

References

Missing.	15

1.2 Gantt Chart (3 Marks – Lecture 1, Week 3)

Your Team Gantt Chart should show all the tasks of your Work Breakdown Structure, and the planned start date and finish date for each task. Milestones should be indicated on the chart. The Gantt Chart must clearly indicate which tasks are on a Critical Path for your Capstone Project (that is, tasks with zero total float). The information should be presented clearly, and the reader should be able to find all information conveniently. Page layout is important – you may need landscape layout for this section.

Each task has a specific deliverable, a start, and an end. For example: "Reading research papers" is a sloppy description of a task because it could last a day, a week, a month, or a year. Also, there is no unequivocal indication that it has been completed. A better description would be: "Find, identify, and document necessary information from the literature." This finishes with a document that is deemed "adequate for present purposes" Of course it may turn out to be a living document, but, in the plan, it should have a definite finish date for delivery of version 1.

Milestones represent a point in the project that is worth reporting, maybe even celebrating in a modest way. A Milestone does not have duration – it is "instantaneous". It normally signals the finish of a significant part of the work. They all should be S M A R T (PS):

- Specific (For example: "Document the required and relevant theory" is good. "Finish reading papers" is not quite there.)

- Measurable (Can be demonstrated unequivocally. "User-friendly interface created" is not suitable. "Prototype able to be operated by test user" would be better.)

- Assigned to accountable people (Each task contributing to the milestone should be under someone's accountability.)

- Realistic (No claims of 100% reliability, or error-free and verified code for example)

- Time-framed (Preferably a due date, alternatively a due week will do, as that implies it will be ready in time for the weekly meeting.)

- Progressive (Each milestone builds on the ones before to form a full picture.)
- Significant (For example, I don't favour "Begin work on the prototype" as a Significant Milestone. I would prefer something like "Deliver prototype to the person accountable for testing." But in suitable circumstances "Begin" may be acceptable.)

1.3 RACIX Matrix (2 Marks – Lecture 1, Week 3)

Your Team RACIX Matrix should show who is accountable for each task, also who is responsible for helping, and whether any stakeholders need to be consulted or informed. For tasks requiring signoff it should show which stakeholders will approve the deliverable.

One and only one team member should be accountable (A) for every task. Accountability is a promise to make sure something is delivered. Even if it is just a meeting, one team member should take accountability for making sure it happens. Any task with no "A" entry is wrong. A task with two or more "A" entries is wrong.

A number of other team members (or even the supervisor or external adviser) may have roles of Responsibility "R". Responsibility means that they are expected to deliver something to contribute to completion of the task. There may be no "R" if "A" is working solo.

If someone has special information or knowledge, and the plan includes getting their input, they should be designated as Consulted "C". This is not mandatory for all tasks. If someone is already "R" or "A" their input can be taken as given, there is no need to designate them as "C".

If someone in authority or with designated responsibility needs to be kept informed, they should be designated "I" for Informed. Example: Security Manager. Should the funding body be designated "I"? Perhaps, especially if there is a specific plan to communicate with them about some aspect of the project as it progresses. Normally though I guess this function would be managed by the supervisor after the project is completed.

For tasks with important deliverables that ought to be approved, the approver is designated "X" meaning the person or people who sign off – like a goal umpire.