

“Engineering Project Post-Mortem” Rubric

Your Post-Mortem Essay should include the following content areas, though you are welcome to include and discuss additional content areas as you see fit. General guidance on the overall length of your post-mortem essay is 5-7 pages (1.5 line spacing) in a Word document; however, you’ll be pasting the text of your essay into a box within the GEL Student Website, so this guidance is approximate. The EPR1 Essay should be a cohesive document that is written out in paragraph form, though you are welcome to use section headings as you see fit.

Project and student identifying information:

- **Your project title**
- **Your role on the project team**
- **A brief description of your project** (~1 paragraph – this can be the original project description you provided for the EPR Sign-Up, though you should update it if necessary)
- **Identify the project’s primary deliverable(s), and for whom the deliverables are intended**
As examples: a design project for an MIT course might prompt you to focus on a specific end-user community, a student project team might require you to deliver your product to a competition, at an internship you might work on a product for certain customers of the company you work for, etc.
- **Provide a brief description of the project team:**
 - Who was the leader? Were there other key team member positions (implicit or explicit)?
 - Describe the backgrounds of team members (i.e., disciplinary backgrounds, skills, etc.)
 - Did the team need to interface with other groups or teams (i.e., this could be a collaborative component, such as an international project, with teams at multiple sites)? If so, describe.
- **Summarize the constraints imposed on your project:**
 - Did your project have a budget? If so, what was it?
 - Was there a set schedule for the deliverable(s) on your project? If so, what was it?
 - Were there performance specifications on your project? If so, describe the key specs.
- **Describe the end-state success of your project:**
 - Did your project achieve on-budget, on-time, per-spec success within the above constraints?

The following sections make up the **post-mortem analysis** of your project. For each of the following topic sections, provide a thoughtful reflection on:

- *What worked well?*
- *What did not work well – and what were some of the causes of these struggles?*
- *What would you do differently next time?*

1. Teamwork and team dynamics

Base your worked-well/didn’t-work-well/do-differently analysis on:

Did team members get along and work well together? Were the skills and abilities of diverse team members appreciated and utilized? Was the work spread out among team members, or concentrated among one or two individuals? Was a team contract created – and if so, was it followed? How and when did the team meet (i.e., in-person, virtually, a combination thereof, no meetings)?

2. Team leadership, leader performance, and leader-team member interaction

Base your worked-well/didn't-work-well/do-differently analysis on:

Did your team designate a leader (or was one designated for you)? What leadership styles did the leader employ, and were they effective? What was the relationship like between the leader and team members? Did the team exhibit two-way leadership behavior (i.e., leader supporting the team members, and team members supporting the leader)?

3. Project planning, organization, and scope management

Base your worked-well/didn't-work-well/do-differently analysis on:

Was the basic purpose, mission, and/or vision of your project outlined at the onset? Did the team exhibit a cohesive and shared embracing of the team's purpose? Were tasks, roles and responsibilities, and priorities clearly identified and communicated? Was the project's scope defined (i.e., scope delineates what is and what is not part of the deliverable(s) of the project)? Did the scope "creep" or morph over time? Did the team employ any project management tools or systems, such as scheduling tools or task lists, during the execution of the project?

4. Communication within the team, and between leadership and team members

Base your worked-well/didn't-work-well/do-differently analysis on:

How were team members informed about the goings-on of the team? What tools or media were used to facilitate communication within the team? What communication methods did the team leader employ to communicate with team members? Identify any barriers or challenges to communication, such as cross-cultural communication challenges, cross-disciplinary communication challenges, time-zone challenges, etc.

5. Schedule performance

Base your worked-well/didn't-work-well/do-differently analysis on:

How did the team and/or team leader adequately allocate time to tasks? Was a project schedule created – and if so, was it useful and/or accurate? Were tasks spread appropriately across the duration of the project timeline? Did the team take advantage of opportunities to get things done in parallel? Was there a particular task that ended up being a bottleneck for other subsequent tasks? How were unanticipated delays or changes in schedule dealt with?

6. Budgetary performance

Base your worked-well/didn't-work-well/do-differently analysis on:

[NOTE: a formal budget may not have been required of some student projects – in this case, comment in this area is not required, or, you could focus on general concepts of resource utilization and efficiency].

How were project expenditures and budgetary status tracked? Was the ability to spend team money granted to all team members, or did purchases have to be approved by certain individuals? Were all team members aware of budgetary constraints? How were unanticipated expenses dealt with?

7. Design validation and testing

Base your worked-well/didn't-work-well/do-differently analysis on:

Was testing to validate the performance of the deliverable(s) conducted? Was end-user feedback on product performance measured or validated? Was there adequate time to perform testing during your project? Did any test results prompt design changes or iterations of the product design?

8. Satisfaction of the customers and/or stakeholders (whichever apply)

Base your worked-well/didn't-work-well/do-differently analysis on:

Was your customer (and/or, stakeholders, sponsors, etc.) happy with the deliverable(s) of your project? Did your team account for the relevant customer satisfaction drivers that were at play?