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Process review.

I have presented my process review as a series of topics from UK-SPEC

A: Knowledge and understanding

A1:

The edge crack data I had at my disposal was insufficient for my application. I researched several papers and standards to develop my knowledge of edge crack properties to assist in fulfilling my project aim.

A2:

Using previous studies of stress concentration factors to examine the stress raisers in a stepped round bar with circumferential shoulder fillets, I identified an improvement that would reduce concentrated stress in the application.

B: Design, development and solving engineering problems

B1:

I identified resources required to carry out the FEA content of my objective. This involved learning to use Fusion 360 software to create my FEA models and Ansys Workbench to run the simulation.

B2:

The project identified limits at which the lifting pins operated, whilst also acknowledging these were extremes to be avoided, stipulating any indication of a flaw in the material warranted immediate retirement of the component. I developed complex spreadsheets to quickly analyse data and learnt to prepare graphical interpretations of the data to simplify the analysis.

B3:

As part of the project, I researched a European standard for the lifting and handling of precast concrete. I identified a lifting restriction that would ensure dynamic factors when lifting, would not contribute to overloading of the lifting points.

C: Responsibility, management and leadership

C1:

I identified three key objectives to fulfil the task. I liaising frequently with my supervising tutor ensuring I was fulfilling the learning objectives.

C2:

I found that time restraints due to family commitments and work commitments consumed vital amounts of resources in terms of time to work on my project. In order to fulfil aims, I proposed a schedule of paid and unpaid time from my work commitments to focus more on my project.

C3:

I sought the assistance of a professional writer to provide proof reading services for my project submission. The recommendations of the proof reader were evaluated at each stage to ensure the engineering context of the work was not compromised.

C4:

I believe in the refinement of my project through multiple revisions to create a clear and well written document, I have demonstrated continuous quality improvements in the course of the project.

Communication and interpersonal skills

D1:

I have prepared a technical report in the passive tense, in concise English to accurately convey the findings of an engineering project.

D2:

Throughout the project I have presented proposals to my tutor, these were for changes in objectives or as a means of confirming their requirements.

D3:

Throughout my project I have been respectful of my tutor's opinions on my work. I have been appreciative of his time and acknowledged constraints on his time.

E: Competence and professional commitment

E1:

I have respected the code of practice regarding the posting of material and the thoughts and opinions of others whilst contributing or partaking in group forums on the OU Platform.

E2:

Creating a safe and comfortable working environment in which to carry out my studies and ensuring adequate breaks from study are taken.

E3:

The use of electronic documents was implemented to minimise the use of valuable resources.

E4:

In order to provide evidence of my continuous professional development I maintain a personal file with my achievements, new skills, training courses, incident resolutions and presentations both to my organisation as well as beyond. This project provides proof of professional development.

E5:

I learned and demonstrated the Harvard Cite Them Right system, acknowledging and respecting the intellectual properties of others.

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