Team Member(s) Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Engineering Design Process / Problem Solving Grading Rubric** Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ out of 100 points

Project Title = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **EXPECTATIONS** | **EXCEEDS EXPECTATIONS** | **MEETS EXPECTATIONS** | **ALMOST MEETS EXPECTATIONS** | **BELOW EXPECTATIONS** |  |
|  | **20‐15 PTS** | **14‐10 PTS** | **9‐5 PTS** | **4‐1 PTS** |  |
| **Understands the** | Skillfully demonstrates a thorough | Demonstrates understanding | Attempts to demonstrate | Does not demonstrate |  |
| **problem and** | understanding of problem’s | of problem’s elements through | understanding of problem’s | understanding of problem’s |  |
| **devises a plan** | elements through a variety of | a variety of strategies, such as | elements, but several elements are | elements. |  |
|  | strategies. | summarizing the problem in | inaccurate and/or incomplete. | Does not select an |  |
|  |  | own words, listing all relevant | Attempts to select an appropriate |  |
|  | Selects an appropriate content‐ | information, identifying missing | appropriate content specific |  |
|  | specific problem‐solving strategy | information, etc. | content specific problem‐solving | problem‐solving strategy. |  |
|  | that will lead to a logical solution | Selects at least one appropriate | strategy; but strategy is inaccurate |  |  |
|  | and/or quality product. | or inappropriate for problem, | Progression/sequence is not |  |
|  |  | content‐specific problem‐ | which will not lead to a logical | logical or major omissions |  |
|  | Creates a logical progression/ | solving strategy that will lead | solution and/or quality product. | exist, which prohibit |  |
|  | sequence of information, which | to a logical solution and/or |  | successful completion of |  |
|  | allows an audience who is | quality product. | Creates a progression/sequence. | procedure. |  |
|  | unfamiliar with this topic to |  | Some steps or omissions may cause |  |  |
|  | successfully complete the | Creates a logical progression/ | audience confusion in completing |  |  |
|  | procedure with ease. | sequence of information, which | the procedure. |  |  |
|  |  | allows an audience who is |  |  |  |
|  |  | unfamiliar with this topic to |  |  |  |
|  |  | successfully complete the |  |  |  |
|  |  | procedure with minimal |  |  |  |
|  |  | confusion |  |  |  |
| **Implements a plan** | Skillfully fulfills all discipline‐ | Fulfills all discipline‐specific and | Attempts to fulfill all discipline‐ | Does not fulfill several |  |
|  | specific and task requirements. | task requirements. | specific and task requirements, but | discipline‐specific and task |  |
|  | Skillfully implements the plan of | Effectively and accurately | one element may be inaccurate or | requirements. |  |
|  | action and content specific | implements the plan of action | incomplete. | Does not implement plan of |  |
|  | strategy in order to solve a | and content‐specific strategy in |  | action and/or content‐ |  |
|  | problem. | order to solve a problem. | Attempts to implement the plan of | specific strategy. |  |
|  | Demonstrates insightful and |  | action and/or content‐specific |  |  |
|  | Demonstrates logical reasoning | strategy, but errors result in | Demonstrates little to no |  |
|  | logical reasoning throughout the | throughout the problem‐ | inaccurate solutions. | logical reasoning. |  |
|  | problem‐solving process to reach | solving process to reach |  |  |  |
|  | accurate and effective solutions. | accurate and effective | Demonstrates some logical | Does not check work and |  |
|  | Checks work throughout | solutions with minor errors. | reasoning, but several errors result | does not revise work as |  |
|  |  | in inaccurate and/or ineffective | needed. |  |
|  | implementation, revising work as | Checks work throughout | solutions. |  |  |
|  | needed | Implementation, revising work | Inconsistently checks work |  |  |
|  |  | as needed. |  |  |
|  |  |  | throughout implementation or |  |  |
|  |  |  | does not revise work as needed. |  |  |
| **Reflects on** | Skillfully justifies the solution | Effectively justifies the solution | Attempts to fulfill all discipline‐ | Does not justify solution |  |
| **Results** | and/or quality product by | and/or quality product by | specific and task requirements, but | and/or product. |  |
|  | interpreting data and/or results. | interpreting data and/or | one element may be inaccurate or |  |  |
|  |  | results. | incomplete. | Does not interpret data |  |
|  | Appropriately cites all required |  | Attempts to implement the plan of | and/or results. |  |
|  | information with no | Appropriately cites required | Does not cite sources of |  |
|  | errors (when appropriate). | information with minor errors | action and/or content‐specific |  |
|  | Insightfully reflects upon | (when appropriate). | strategy, but errors result in | information (when |  |
|  |  | inaccurate solutions. | appropriate). |  |
|  | problems, mistakes, or | Reflects upon problems, |  |  |  |
|  | misunderstandings encountered | mistakes, or misunderstandings | Demonstrates some logical | Does not reflect upon |  |
|  | during the problem‐solving | encountered during the | reasoning, but several errors result | problems, mistakes, or |  |
|  | process. | problem‐solving process. | in inaccurate and/or ineffective | misunderstandings. |  |
|  |  |  | solutions. |  |  |
|  |  |  | Inconsistently checks work |  |  |
|  |  |  | throughout implementation or |  |  |
|  |  |  | does not revise work as needed. |  |  |
|  |  |  |  |  |  |
| **Creates an** | Uses an organizational structure | Uses an organizational | Uses an organizational structure | There is little evidence of |  |
| **organizing** | that enhances the response. | structure that allows for a | that causes confusion. | organization. |  |
| **structure** |  | progression of ideas to |  |  |  |
|  | Skillfully represents data and/or | develop. | Ineffectively represents data | Does not represent data |  |
|  | results in an effective | Represents data and/or results | and/or results. | and/or results. |  |
|  | manner, using technology when |  |  |  |
|  | appropriate. | in an effective manner, using |  |  |  |
|  |  | technology when appropriate. |  |  |  |
| **Demonstrates** | Demonstrates consistent control | Demonstrates control of usage, | Demonstrates some control of | Demonstrates little control |  |
| **understanding of** | of grammar, usage, punctuation, | grammar, punctuation, | usage, grammar, punctuation, | of usage, grammar, |  |
| **written language** | sentence construction, and | sentence construction, and | sentence construction, and | punctuation, sentence |  |
| **conventions** | spelling. | spelling. | spelling. | construction, and spelling. |  |
| **(when** |  | Occasional errors do not | Errors do interfere with meaning. | Numerous errors interfere |  |
| **appropriate)** |  |  |
|  |  | usually interfere with meaning. |  | with meaning. |  |