Rubric for Deadline A

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| --- | --- | --- | --- | --- |
| **Section****(Total Points)** | **Exemplary** | **Above Average**  | **Developing** | **Score** |
| **Simplified First Law for Evaporator****(20)** | First Law written and simplified according to information given in prompt.(20) | First Law has one term that is incorrect after simplification.(15) | First Law either not simplified or has more than one term that is incorrect after simplification.(0) |  |
| **Simplified First Law for Heat Exchanger****(20)** | First Law written and simplified according to information given in prompt.(20) | First Law has one term that is incorrect after simplification.(15) | First Law either not simplified or has more than one term that is incorrect after simplification.(0) |  |
| **Simplified First Law for Compressor****(20)** | First Law written and simplified according to information given in prompt.(20) | First Law has one term that is incorrect after simplification.(15) | First Law either not simplified or has more than one term that is incorrect after simplification.(0) |  |
| **Simplified First Law for Condenser****(20)** | First Law written and simplified according to information given in prompt.(20) | First Law has one term that is incorrect after simplification.(15) | First Law either not simplified or has more than one term that is incorrect after simplification.(0) |  |
| **Simplified First Law for Expansion Valve****(20)** | First Law written and simplified according to information given in prompt.(20) | First Law has one term that is incorrect after simplification.(15) | First Law either not simplified or has more than one term that is incorrect after simplification.(0) |  |
|  |  |  | **Total Score** |  **/ 100** |

Rubric for Deadline B

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| --- | --- | --- | --- | --- |
| **Section****(Total Points)** | **Exemplary** | **Above Average** | **Developing** | **Score** |
| **Detailed Inputs****(25)** | Every input is defined with appropriate units. Data loads and user inputs used appropriately.(25) | Missing a few inputs and/ or units. Missing one or two instances where data loads or user inputs are needed.(19) | Missing most inputs and/ or units. Many data loads or user inputs are not specified.(0) |  |
| **Detailed Outputs****(25)** | All outputs are described. All formatted output to command window and file exports shown.(25) | Missing a few outputs to the command window and/ or file exports.(19) | Missing most outputs to the command window and/ or file exports.(0) |  |
| **Detailed Workflow****(25)** | Algorithm is logical and includes appropriate decision-making and loops where required. Includes all data validations, calculations, manipulations, and results. All items defined prior to use.(25) | Algorithm is illogical in one or two places. It may be missing a few calculations or show them incorrectly.(19) | Algorithm is illogical or incomplete in more than two places.(0) |  |
| **Complete Algorithm – Necessary Information****(25)** | Algorithm includes all equations, assumptions, and variables needed.(25) | Algorithm is missing an equation, assumption, or variable in one or two places.(19) | Algorithm is missing more than two equations, assumptions, or variables.(0) |  |
|  |  |  | **Total Score** |  **/ 100** |

Rubric for Deadline C

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| **Section****(Total Points)** | **Exemplary** | **Above Average** | **Developing** | **Score** |
| **Code for Task 1****(33)** | Code for task 1 works. Data is loaded and all appropriate data validations are completed.(33) | Code for task 1 has correct data loads but one or two data validations are missing or completed incorrectly.(25) | Data not loaded or more than two data validations missing or completed incorrectly.(0) |  |
| **Code for Task 2****(33)** | Code for task 2 works. All inputs and data validations are correctly programmed.(33) | Code for task 2 is missing one or two inputs or data validations or they are done incorrectly.(25) | More than two inputs or data validations are missing or done incorrectly.(0) |  |
| **Code for Task 3****(34)** | Code for task 3 works. Enthalpies are correctly found, including interpolation where needed.(34) | Code for task 3 is missing interpolation.(25). | Code for task 3 not completed.(0) |  |
|  |  |  | **Total Score** |  **/ 100** |

Rubric for Deadline D

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| --- | --- | --- | --- | --- |
| **Section****(Total Points)** | **Exemplary** | **Above Average** | **Developing** | **Score** |
| **Results CSV File****(34)** | All results are correct.(34) | One result is incorrect.(25) | More than one result is incorrect.(0) |  |
| **Compressor Work Output****(33)** | Compressor work output is correct with correct units.(33) | Units are missing or compressor work is slightly incorrect.(25). | Compressor work is incorrect.(0) |  |
| **Heat Removed Output****(33)** | Heat removed is correct with correct units.(33) | Units are missing or heat removed is slightly incorrect.(25) | Heat removed is incorrect.(0) |  |
|  |  |  | **Total Score** |  **/ 100** |