

**CS1428**

**Summer 2022**

**Assignment 4 Rubric**

**Student Name:** [REDACTED]

**Style: 20 points**

Condition	Max Points	Points Awarded
All lines less than 80 characters.	4	<span style="background-color: black; color: black;">[REDACTED]</span>
Variables have meaningful names.	4	<span style="background-color: black; color: black;">[REDACTED]</span>
Every block indented one tab or 4 spaces.	4	<span style="background-color: black; color: black;">[REDACTED]</span>
Comments included for “complicated” actions.	2	<span style="background-color: black; color: black;">[REDACTED]</span>
File name is [Authors Last Name]_assignment4.cpp	4	<span style="background-color: black; color: black;">[REDACTED]</span>
Author, date, and collaborator comments included.	2	<span style="background-color: black; color: black;">[REDACTED]</span>

**Code Refactor: 20 points**

Condition	Max Points	Points Awarded
Design New Ship implemented as 1 function	2	<span style="background-color: black; color: black;">[REDACTED]</span>
Test a Ship Design implemented as 2 functions	10	<span style="background-color: black; color: black;">[REDACTED]</span>
Simulate a Flight implemented as 1 function	4	<span style="background-color: black; color: black;">[REDACTED]</span>
Menu branches each call 1 function (possibly 2 for Test)	2	<span style="background-color: black; color: black;">[REDACTED]</span>
Good comments for function return and parameters	2	<span style="background-color: black; color: black;">[REDACTED]</span>

**Custom Data Type: 20 points**

Condition	Max Points	Points Awarded
Ship <b>struct</b> has correct members	10	<span style="background-color: black; color: black;">[REDACTED]</span>
Design a New Ship writes user input into a Ship	5	<span style="background-color: black; color: black;">[REDACTED]</span>
Test a Ship Design reads files into a Ship	5	<span style="background-color: black; color: black;">[REDACTED]</span>

**Test Cases: 40 points**

Input	Test Condition (not exact output)	Max Points	Points Awarded
D Thomas Harris Mae 500 5200	<u>Contents of Mae.txt</u> Acceleration: 10.4m/s <sup>2</sup> Impulse: 22.9Ns/kg Max Altitude: 93.1km	5	
D Scott Manley Leonov 1000 2330	<u>Contents of Leonov.txt</u> Acceleration: 2.3m/s <sup>2</sup> Impulse: 8.3Ns/kg Max Altitude: 109.1km	5	
D Isaac Asimov Christa 425 850	<u>Contents of Christa.txt</u> Acceleration: 2.0m/s <sup>2</sup> Impulse: 6.8Ns/kg Max Altitude: 159.9km	5	
T Mae	Console prints, "Mae has failed test number 1"	5	
t Leonov	Console prints, "Leonov has failed test number 2"	5	
T Christa	Console prints, "Christa has failed test number 4"	5	
S 2.2 35	<u>Console Output</u> At 0 seconds: 0.0m/s 0.0m ... At 10 seconds: 22.0m/s 110.0m ... At 35 seconds: 77.0m/s 1.3km	5	
q	Program prints, "Thank you for using Craft Designer Plus." and exits.	5	

**\*values can be +- 0.1**

**All test cases will be entered in order on one run of the program.**

**Total Points:**