*2022-2023*

**OSU Supplemental Instruction Session Planning Form**

SI Leader: \_\_\_Thomas Morton\_\_\_\_\_\_\_ Week of Semester:\_\_\_\_\_\_\_\_\_\_5\_\_\_\_\_\_\_\_\_\_\_

Course: \_\_\_\_\_\_CS 1113\_\_\_\_\_\_\_\_ Instructor: \_\_\_\_\_\_Dr. Crick\_\_\_\_\_\_\_\_

Session Objectives

1. Students will understand the 8 different primitive data types and their use cases.

2. Students will understand how to convert to and from binary.

3. Students will be able to write a small program using the Random module using appropriate primitive type and proper style conventions.

Professor Meeting Notes:

I did not receive an email response from Dr. Crick.

Opening/Introductory Activity

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity Name:  Share a Hobby | Session Objective(s) Met:  Objective 1 | Time Allotted:  5 minutes | Materials Needed:  None | Targeted Learning Style(s):  Audial | Bloom’s Levels Used:  Analyzing  Applying  Understanding  Remembering |
| Explanation/Notes:  Starting with the SI leader and going around the room, each participant will share a hobby of theirs. Then, they will think of a primitive data type that can be used to describe or store data from this hobby.  (Ex: Running a sprint – Timer – float/double; Video Games – High score – integer; Golf – Player Finished Course – boolean) | | | | | |

Main Session Activity 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity Name:  Binary Best | Session Objective(s) Met:  Objective 2 | Time Allotted:  15 minutes | Materials Needed:  Pencil & paper  Phone calculator suggested but not required  Chalk / whiteboard  Candy prizes | Targeted Learning Style(s):  Audial  Visual  Kinesthetic | Bloom’s Levels Used:  Applying  Understanding  Remembering |
| Explanation/Notes:  A brief review of conversion to and from binary will be covered using about 5 minutes of session; following, participants will be split into groups and given 3-5 minutes to convert an 8-bit representable number to binary, then convert the number back to decimal representation with showing steps along the way. Afterwards, the answer will be shown stepwise on the whiteboard. The fastest group with the correct answer will be given a candy reward. Activity repeated one more time with a much larger number. | | | | | |

Main Session Activity 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity Name:  Group Coding Activity | Session Objective(s) Met:  Objectives 1, 2, and 3 | Time Allotted:  20 minutes | Materials Needed:  Computer with Java IDE or word processor  Pencil and paper if group doesn’t have the above  SI Leader completed solution | Targeted Learning Style(s):  Visual  Kinesthetic | Bloom’s Levels Used:  Creating  Evaluating  Analyzing  Applying  Understanding  Remembering |
| Explanation/Notes:  Participants will group up and write a simple program with 5 objectives:   1. Create a Scanner object. 2. Have the Scanner object take user input and store it as a long. 3. Create a Random object that uses the long as a seed. 4. Have the Random object generate a random integer between 65 and 122 inclusive. 5. Write a print statement that outputs the int, an explicitly type-casted double containing the int divided by 13, and the random number explicitly type-casted to a character.   Assistance will be given to groups that struggle in finding a solution to any of the objectives.  5 minutes will be used afterwards to walk through the SI leader’s completed version of the program and explanation of the processes to meet the objectives, as well as discuss any difficulties the groups encountered. | | | | | |

Closing Activity

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity Name:  Verbal Volleyball | Session Objective(s) Met:  Objectives 1, 2, 3 | Time Allotted:  10 minutes | Materials Needed:  None | Targeted Learning Style(s):  Audial | Bloom’s Levels Used:  Analyzing  Applying  Understanding  Remembering |
| Explanation/Notes:  Using about 3 minutes per objective, participants will “volleyball” key concepts of each objective amongst each-other without repeating any concepts. Using the remaining time, participants will be asked to explain their understanding of different data types and their importance from a coding perspective. | | | | | |

|  |  |
| --- | --- |
| Plan for extra activity:  Predict Test Questions:  Using the information covered in class so far, participants will create one test question for other participants to answer. Afterward, the participant will be asked to give their answer to the question if no other participant answers correctly. | Extra notes: |