

**Course Addendum**

Semester**: Fall 2022** Subject Code: **BTP305** Section**:** **B**

Subject Title: **Object-Oriented Software Development using C++**

Professor: **Miguel Watler** Office**:**

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Office Hours**:** **Tuesdays & Thursdays 2:25pm-4:10pm**

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Approved by: \_\_\_\_\_\_\_

Kathy Dumanski, Chair, School of Software Design and Data Science

Please read this addendum to the general course outline carefully. It is your guide to the course requirements and activities.

Please refer to the course outline for learning outcomes, course description and text and materials.

Please also visit <sdds.senecacollege.ca> for key information on courses, graduation requirements, transfer credit, and more from the School of Software Design and Data Science.

# Assessment Summary

|  |  |  |
| --- | --- | --- |
| Workshops | **25%** | Best 8 (@3.125% each) out of min. 9 |
| Final Project | **15%** |  |
| Quizzes | **15%** | Best 8 (@1.875% each) out of min. 10 |
| Test #1 | **15%** |  |
| Test #2 | **30%** |  |

# Course Policies

* Achieve a grade of 50% or better on the weighted average of the tests.
* Submit a complete working *Project*
* Grading Policy: <http://www.senecacollege.ca/about/policies/grading-policy.html>

Each workshop has a non-coding part: a *reflection*. Reflection does not have a mark associated but can incur a **penalty of max 40%** of the whole workshop’s mark if the professor deems it insufficient.

**A student can get credit only for complete *workshops*** (all coding and non-coding parts of the workshop are submitted); incomplete workshops receive **0%**.

The *project* is considered complete if all milestones are submitted, and the implementation follows the requirements from the project description.

# Copyright and Academic Integrity

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<http://www.senecacollege.ca/about/policies/academics-and-student-services.html>

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**TENTATIVE WEEKLY SCHEDULE**

**Fall 2021**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week** | **Topic or Skill** | **Reading** | **Assessment** | **Weight** |
| **Week 1**  **September 5 – 9** | * [Overview](https://advoop.sdds.ca/A-Introduction/overview) * [C++ Building Blocks](https://advoop.sdds.ca/A-Introduction/cpp-building-blocks) * [Compilation and Execution](https://advoop.sdds.ca/A-Introduction/compilation-and-execution) | * [Fundamental Types](https://advoop.sdds.ca/B-Types/fundamental-types) * [Pointers, References and Arrays](https://advoop.sdds.ca/B-Types/pointers-references-and-arrays) * [Classes and Scoped Enumerations](https://advoop.sdds.ca/B-Types/classes-and-scoped-enumerations) |  |  |
| **Week 2**  **September 12 – 16** | * [Fundamental Types](https://advoop.sdds.ca/B-Types/fundamental-types) * [Pointers, References and Arrays](https://advoop.sdds.ca/B-Types/pointers-references-and-arrays) * [Classes and Scoped Enumerations](https://advoop.sdds.ca/B-Types/classes-and-scoped-enumerations) | * [Inheritance and Inclusion Polymorphism](https://advoop.sdds.ca/C-Class-Relationships/inheritance-and-inclusion-polymorphism) * [Class Templates](https://advoop.sdds.ca/C-Class-Relationships/class-templates) | * **Quiz #1** * **Workshop #1** | * **1.875%** * **3.125%** |
| **Week 3**  **September 19 – 23** | * [Inheritance and Inclusion Polymorphism](https://advoop.sdds.ca/C-Class-Relationships/inheritance-and-inclusion-polymorphism) * [Class Templates](https://advoop.sdds.ca/C-Class-Relationships/class-templates) | * [Compositions, Aggregations and Associations](https://advoop.sdds.ca/C-Class-Relationships/compositions-aggregations-and-associations) * [Expressions](https://advoop.sdds.ca/D-Processing/expressions) | * **Quiz #2** * **Workshop #2** | * **1.875%** * **3.125%** |
| **Week 4**  **September 26 – 30** | * [Compositions, Aggregations and Associations](https://advoop.sdds.ca/C-Class-Relationships/compositions-aggregations-and-associations) * [Expressions](https://advoop.sdds.ca/D-Processing/expressions) | * [Functions](https://advoop.sdds.ca/D-Processing/functions) * [Error Handling](https://advoop.sdds.ca/D-Processing/error-handling) | * **Quiz #3** * **Workshop #3** | * **1.875%** * **3.125%** |
| **Week 5**  **October 3 – 7** | * [Functions](https://advoop.sdds.ca/D-Processing/functions) * [Error Handling](https://advoop.sdds.ca/D-Processing/error-handling) | * [Standard Library](https://advoop.sdds.ca/E-STL/standard-library) * [Containers and Iterators](https://advoop.sdds.ca/E-STL/containers-and-iterations) | * **Quiz #4** * **Workshop #4** | * **1.875%** * **3.125%** |
| **Week 6**  **October 10 – 14** | * [Standard Library](https://advoop.sdds.ca/E-STL/standard-library) * [Containers and Iterators](https://advoop.sdds.ca/E-STL/containers-and-iterations) | * Review | * **Quiz #5** * **Workshop #5** | * **1.875%** * **3.125%** |
| **Week 7**  **October 17 – 21** | * Review | * [Algorithms](https://advoop.sdds.ca/E-STL/algorithms) * [File Stream Objects](https://advoop.sdds.ca/E-STL/file-stream-objects) | * **Midterm Test** * **Project Release** | * **15%** |
| **Study Week** | | | | |
| **Week 8**  **October 31 – November 4** | * [Algorithms](https://advoop.sdds.ca/E-STL/algorithms) * [File Stream Objects](https://advoop.sdds.ca/E-STL/file-stream-objects) | * [Raw Pointers](https://advoop.sdds.ca/F-MemoryModel/raw-pointers) * [Smart Pointers](https://advoop.sdds.ca/F-MemoryModel/smart-pointers) | * **Quiz #6** * **Workshop #6** | * **1.875%** * **3.125%** |
| **Week 9**  **November 7 – 11** | * [Raw Pointers](https://advoop.sdds.ca/F-MemoryModel/raw-pointers) * [Smart Pointers](https://advoop.sdds.ca/F-MemoryModel/smart-pointers) | * [Multi-Threading](https://advoop.sdds.ca/G-Performance/multithreading) * [Thread Classes](https://advoop.sdds.ca/G-Performance/thread-classes) | * **Quiz #7** * **Workshop #7** | * **1.875%** * **3.125%** |
| **Week 10**  **November 14 – 18** | * [Multi-Threading](https://advoop.sdds.ca/G-Performance/multithreading) * [Thread Classes](https://advoop.sdds.ca/G-Performance/thread-classes) | * [Pre-Processor Directives](https://advoop.sdds.ca/H-Deeper-Detail/pre-processor-directives) * [Arrays and Pointers to Arrays](https://advoop.sdds.ca/H-Deeper-Detail/arrays-and-pointers) | * **Quiz #8** * **Workshop #8** | * **1.875%** * **3.125%** |
| **Week 11**  **November 21 – 26** | * [Pre-Processor Directives](https://advoop.sdds.ca/H-Deeper-Detail/pre-processor-directives) * [Arrays and Pointers to Arrays](https://advoop.sdds.ca/H-Deeper-Detail/arrays-and-pointers) | * [Multiple Inheritance](https://advoop.sdds.ca/H-Deeper-Detail/multiple-inheritance) * [Bit-Wise Expressions](https://advoop.sdds.ca/H-Deeper-Detail/bit-wise-expressions) | * **Quiz #9** * **Workshop #9** | * **1.875%** * **3.125%** |
| **Week 12**  **November 28 – December 2** | * [Multiple Inheritance](https://advoop.sdds.ca/H-Deeper-Detail/multiple-inheritance) * [Bit-Wise Expressions](https://advoop.sdds.ca/H-Deeper-Detail/bit-wise-expressions) | * [Linked List Technology](https://advoop.sdds.ca/H-Deeper-Detail/linked-list-technology) * [Other Topics](https://advoop.sdds.ca/H-Deeper-Detail/other-topics) | * **Quiz #10** * **Project Due** | * **1.875%** * **15%** |
| **Week 13**  **December 5 – 9** | * [Linked List Technology](https://advoop.sdds.ca/H-Deeper-Detail/linked-list-technology) * [Other Topics](https://advoop.sdds.ca/H-Deeper-Detail/other-topics) | * Review |  |  |
| **Week 14**  **December 12 – 16** | * Review | * Review | * **Final Test** | * **30%** |

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