

# ISC 3U Final Project

The objective of this course is for you to be able to develop your problem solving skills. In particular, the skills required to develop meaningful programs. The best way to do this is to actually develop a meaningful program. Your final project is to develop a meaningful program of your choice. Each person is at a different stage in their programming ability. The final project you pick should be a reflection of your programming ability. Before you start working on your project you must submit a proposal. This is to prevent you from starting a project you can not finish, or taking on a task that is too easy, and would result in a low mark. Before you begin writing code for your project you must also develop a clear plan of what you plan to do, this will help prevent you from wasting time wondering what you should be doing. A good plan will allow you to work at a steady pace and avoid hitting too many dead ends. It will also ensure that you are using the most appropriate data structures and algorithms. Don't be afraid to ask for help from me when you are planning your project. Some projects are very difficult to plan and you may need a nudge in the right direction.

Start thinking about what you would like to work on now. If you are at a loss, come see me and I will give you some ideas. Traditionally most people do games, but there is a wide variety of other programs you can do. The only absolute requirement of your final project is that it must be one you enjoy working on.

## Partners

You are allowed to work in partners but your choice of partners must be approved by me. It is important that both members of a partnership have meaningful contributions. Working with a partner presents a number of very serious problems, as well as an opportunity to overcome these problems and learn from them. **All written work must be done by both members.**

## Timeline

The project officially starts on April 30<sup>th</sup>, but you should start planning what you would like to do now. The final version will be submitted on June 15<sup>th</sup>, giving you 7 weeks to work. It is very easy to procrastinate with such a large time frame. Please avoid the temptation to do this. Many A students receive a B on their final project because they have gotten into the habit of procrastinating throughout the course and they always managed to finish all of their work. However the final project is just too big for that.

## Extra-Help

As with any real program you are not expected to re-invent the wheel yourself. It is reasonable to use code that you find on the Internet and get help from friends but it is **very important that you make it clear in comments which sections you received help with and which sections you copied directly.** Failure to do so could result in a **zero for your project mark**, not just the section that was not commented.

## Evaluation

The rubric provided will be used to evaluate the final project. In the case of partners, If it becomes clear to me that the amount of work and results has not been relatively even, then the final marks will be adjusted to fairly reflect that fact. **An interview will be conducted for each project shortly after they are submitted.** The purpose of the interview is threefold; to authenticate the project, to determine the distribution of work and to ensure that I do not miss, or fail to appreciate any features.

# ICS3U Project Rubric

Student Name: \_\_\_\_\_

Mark Range	0	1-2	3-4	5	Score
<b>Use of Comments and choice of variable names</b>	Program listing has no comments	Only some sections have comments or variables are poorly named	Most sections have comments and variables are properly named	Variables are properly named, useful comments are present at program header, all subroutine headers, all variables and any complicated code	
<b>Use of functions</b>	Program has no functions	functions present but parameters improperly used or many large blocks still need to be broken down	functions used but a few global variables are used or a few sections of code need to be broken down.	All code is broken down into reasonably sized functions that perform one logical task each and no global variables are accessed from subroutines	
<b>Interface</b>	Program was not completed	Program is awkward to use	Program has a logical and straight forward interface	Program has a clever interface and supports both keyboard and mouse input as appropriate.	
<b>Use of Graphics</b>	Graphics included is very basic in setup and design with only a few commands used	Graphics show some originality and uses a variety of different graphic commands	Graphics show individual originality and inventive design	Graphics show both advanced design and individual creativity	
Mark Range	0-2	3-4	5-7	8-10	
<b>Choice of data structures</b>	Program was not completed	No arrays, records, files or string manipulation used.	Data structures used but there are cases where better choices should have been made.	Logical choices made to represent all data in the program.	
<b>Fun (for games) or usefulness(other)</b>	Program was not completed	Game is boring or program would never be used.	Game is worth playing a few times or program basically accomplishes it's goal	Fun to play or program is actually worth using in a day-to-day setting	
Mark Range	0-5	6-10	11-15	16-20	
<b>Complete</b>	Does not run or is very minimal	Does not run or is very minimal	Basic structure is there, but the game does not seem "polished"	Attention to detail is obvious. Has intro, high score, many "little" features.	
<b>Difficulty of Project</b>	Project could be finished by an average student in one day	Project used only basic structures and techniques	Project requires planning and original thought to complete	Project requires full use of class time and extra time to complete	
<b>Inventive Problem Solving Techniques</b>	Program is very basic in setup and design	Layout and setup meet program requirements	Program design shows originality and inventive problem solving	Program design shows both advanced layout out individual creativity	

The final project must be submitted before 3:15pm on Friday, June 15<sup>th</sup> 2018

Both the **product** (your program) and the **process** (weekly logs and video logs) will be evaluated.

Product (your final program)	Process (weekly logs and 2 video logs)
<b>25%</b> of your final course mark	<b>5%</b> of your final course mark

Weekly logs and Video Logs Rubric

Description	Exceeds expectations	Meets expectations	Does not meet expectations	Score
Points Earned	3	2	1 or 0	
Submitted on time	Always	One late submission	Two or more late submissions	
Information	Ample quantitative and qualitative information	Adequate quantitative and/or qualitative information	Minimal quantitative or qualitative information	
Completeness	Detailed records include what worked and what did not	Records include what worked and what did not	Incomplete or missing records	

Weekly logs schedule:

Log #1: Between May 4 – May 6

Log #2: Between May 11 – May 13

Log #3: Between May 18 – May 20

Log #4: **Video log** (Between May 25 – May 27)

Log #5: Between June 1 – June 3

Log #6: Between June 8 – June 10

Log #7: **Video log** (Between June 15 – June 18)