

ENSE 477 GroupProject #1

Team Name: **VSB_Plus**

Team Members: Xia Hua, Xinyu Liu, Jingkang Yang, Priscilla Chua

Due: **Jan 21, 2021**

Brief project blurb

The development of the Visual Schedule Builder into a better user-friendly design website, that will help the users to organize and plan out their time table wisely. By making the website an interactive course schedule builder, with the advising system of the courses to take, and the course detail visualization that can assist the students to layout the desired course schedule with nicer time arrangement. As well, to assist the advisor with their work, save up time on the unnecessary things and concentrate more on the important ones.

"Show me us what you got"

We are now still working on the coding for a better outcome of our Visual Schedule Builder Plus website interface(html, css, JavaScript, PHP and JSON with the machine learning). The designing and discussing on the Entity Relationship Diagram of how the website will interact with each other and the users. As well, we have started to build up some databases of the information that to be stored/used for our website.

Recall:

Project Charter		
Project Name	Visual Schedule Builder Plus(VSB_Plus)	
Business Case	For the creation of the Visual Schedule Builder to a better user-friendly design website(VSB_Plus), it will help the users to organize and plan out their time table wisely. In addition, it is also to benefit advisors with their work, less effort on the unnecessary work and more focus on the most important things.	
Team Members		
Name	Role	Responsibilities
Xia Hua	Code developer	- Build the web page frame - Draw the architecture diagrams - Write the web code - Manage github’s kanban
Xinyu Liu	Scrum Master	- Organize team with milestones - Organize the project documentation - Set up meeting times - Collect team member’s ideas
Jingkang Yang	Code developer	- Set up the AWS Web server - Web page design - Prototype design - Write the web code
Priscilla Chua	Business Analysis	- Documentation stuff - Organize the project’s ideas and insight - Organize meeting notes

PROJECT REQUIREMENTS

Project Name Visual Schedule Builder Plus (VSB_Plus)

Functional Requirements

Home Page:

- Students can choose to sign in to their account with
 - ✧ student name
 - ✧ student ID
- According to their name and SID to determine what faculty they are registered in

Academic Page (3 views):

- Default linear term registration views
 - ✧ Plan out the courses list that the students require to take in different semester/term
 - ✧ Recommend the courses according to the faculty requirements
 - ✧ Visualize the different limitations of each course (the prerequisites, when it offers, or the credit hours requires)

- ✧ Display the course that were completed
- Kanban-style
 - ✧ Separating three parts to show the courses (Already Done, Registered Now, Future will Take)
- Calendar view
 - ✧ Terms as the column, 1st row as course supposed to take, 2nd row as courses chosen to register.
 - ✧ Using the arrowed line to show relationship of courses
 - ✧ Able to drag and put the course in Taking selection
 - ✧ For the elective course, fetch the available elective courses from a file, and put the courses in the corresponding term.

Semester Schedule Page:

- Courses list that are available for the students to take in different semester/term
- Course details(will be link to Course Details Page)
- Building up of time schedule as the students have select a course
- Search bar to search for other course

Courses List Page:

- List out all the courses that are offers in U of R along with the filter button(classify in different category)
 - ✧ faculty
 - ✧ availability
 - ✧ elective classes
- Show up details for the selected course.

Technical/Performance Requirements

Technical requirements:


1. Run the back-end server
2. Using JSON to get the course information database
3. Create machine learning model to recommend the course

Performance requirements:

1. Show the course schedule for several semesters.
2. Show up the course details in multiple way
3. Visualize the limitation of course

Project demo (from lofi, to hifi, to coded MVP(s))

homePage.html



Visual Schedule Builder Plus

Academic Schedule BuilderSemester Schedule BuilderCourse List Database

Project Description

The purpose of this UoR Software Engineering Capstone Project is to enhance the functionality of UoR existing Visual Schedule Builder and helping future students course selection easier.

This project will be focused on the students, the building up of their classes schedule. The opinions from the professors of different faculty and the students are mainly to be considering. The Visual Schedule Builder Plus will be designed for students into the different faculty. Then through the faculty, according to the importance and limitations of classes, the Visual Schedule Builder Plus will recommend the courses to take for the students in the different semesters. After the students have chosen and built up their desired time schedule, the Visual Schedule Builder Plus can also give out some advice on their time table to help them for better time planning.

A good design of the Visual Schedule Builder Plus that will help to organize and build up the time table wisely it is to solve the problems such as considering what courses to take first to be able to graduate in time, knowing the different limitations of each course (for example, the prerequisites in order to take the class, and when it offers, or the credit hours requires), as well to be aware of which elective classes to take that will benefit them in the future based on their faculty. The enhancing of the functionality for U of R existing Visual Schedule Builder will help the students to select the courses easier.

Screenshot

Update Log

Project #1

- main.html page create
- database create

2020-10-28

Project #2

- academicBuilder.html page create
- database create

2020-11-02

Contact Us


GitHub

- VS_B_Plus

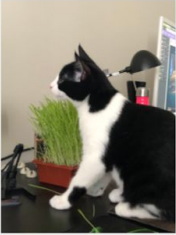
Email

- liu725@uregina.ca
- yang212@uregina.ca
- name@example.com
- name@example.com


Team Info




Name: Xinyu Liu
SID: 200362878
Position: Scrum Master



Name: Jinglang Yang
SID: 200362586
Position: Developer



Name: Xia Hua
SID: 200368746
Position: Developer




Name: Priscilla Chua
SID: 200363504
Position: Business Analysis

Team Description:

Our goal is to create a user friendly, interactive schedule builder. We are a group of University of Regina Software Engineering students.

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Credit: Login source code from w3schools.com "How TO - Login Form"
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academicBuilder.html



Visual Schedule Builder Plus

[Academic Schedule Builder](#)
[Semester Schedule Builder](#)
[Course List Database](#)

Views:

Default Schedule(Fall 2020):

Term 1:

ENSE 400

ENEL387

ENSE 496AC

ENSE 496AD

ENSE 472

15 credit hours

hard

many quizzes

no proj

Term 2:

ENSE 400

ENEL387

ENSE 496AC

ENSE 496AD

ENSE 472

15 credit hours

hard

many quizzes

no proj

Recommended Schedule(Fall 2020):

Term x (next term of latest term):

ENSE 400

ENEL387

ENSE 496AC

ENSE 496AD

ENSE 472

15 credit hours

hard

many quizzes

no proj

Courses completed:

- ENGG 100
- ENGL 100
- ENEL 280
- ENEL 281
- ENEL 282
- ENGG 100
- ENGL 100
- ENEL 280
- ENEL 281
- ENEL 282

Courses need to take:


- ENSE 470
- Math 213
- ENEL 353
- ENEL 380
- ENEL 374

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Visual Schedule Builder Plus

Academic Schedule Builder

Semester Schedule Builder

Course List Database

Completed Course Detail Page

Course Completed

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

Show More

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

Show More

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

Show More

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

Show More

Course In Progress

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

Show More

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

- Time: xxxx

- Instructor: xxxx xxxx

- Exams : xxxxxxxx

- Distribution : Lorem ipsum dolor sit amet consectetur adipisicing elit. Quisquam, nesciunt! corrupti cum molestias hic. Porro, incidunt!

Show Less

Course Left

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

Show More

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

Show More

ENGL 100

- System Engineering Design Project

- Term : 2019

- Lab : None

Show More

ENGL 100

- System Engineering Design Project

- Term : 2019


- Lab : None

Show More

Program

Total Credit Hours:136(46 courses)

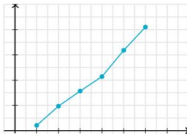
Revenue per product



Product 1

Product 2

Product 3



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academicBuilderNCDetail.html(unfinish, in process)

academicBuilderRecDetail.html(unfinish, in process)

academicBuilderTable.html

 **Visual Schedule Builder Plus**

Academic Schedule BuilderSemester Schedule BuilderCourse List Database

Views:  

Terms already taken

Term1	Prerequisites	Type
ENGG100	None	compulsory course, engineer
ENGL100	None	compulsory course, language
ENGL123	None	compulsory course, engineer

Not complete course

	Prerequisites	Type
ENGG100	None	compulsory course, engineer
ENGL100	None	compulsory course, language
ENGL123	None	compulsory course, engineer

Recommend course in following term


Term1	Prerequisites	Type
ENGG100	None	compulsory course, engineer
ENGL100	None	compulsory course, language
ENGL123	None	compulsory course, engineer

Completed course

	Prerequisites	Type
ENGG100	None	compulsory course, engineer
ENGL100	None	compulsory course, language
ENGL123	None	compulsory course, engineer


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academicBuilderTermDetail.html

 **Visual Schedule Builder Plus**

Academic Schedule BuilderSemester Schedule BuilderCourse List Database


Course of term Detail Page



None	Term1 2018 Fall (Finished)	Term2 2019 Winter (Current)	Term3 2019 Fall (Upcoming)
Optional Course		ENGG 100	
		ENGL 100	
		ENSE 400	
Course Schedule	CS 400		
	MATH 400		
		2	6
		2	6
		2	6

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semesterBuilder.html



Visual Schedule Builder Plus

Academic Schedule Builder

Semester Schedule Builder

Course List Database

LogIn

SignUp

Switch

Choose a term: Fall 2020

Course List



Drop here

ENSE 400

ENSE Project Start up

Course Detail Info: **** * * * * *

ENSE 496AC

Artificial Intelligence

Course Detail Info: **** * * * * *

ENSE 496AD

Machine Learning

Course Detail Info: **** * * * * *

Weekly Schedule & Exam Date

< > today

January 2021

month week day

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Courses Completed:

ENSE374

Courses To Take:

ENSE401

ENSE400

ENSE496AC

ENSE496AD

Midterm Exam Date:

- ENSE 400: /
- ENSE 496AC: Tuesday, October 20, 2020
- ENSE 496AD: Monday, October 26, 2020

Final Exam Date:

- ENSE 400: Wednesday, December 16, 2020
- ENSE 496AC: Tuesday, December 22, 2020
- ENSE 496AD: Wednesday, December 16, 2020

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Credit: Calendar source code from fullcalendar to version 3.3.1

Fullcalendar tutorial: Youtube video "JS To-do List #14 FullCalendar - Rendering a Calendar with JavaScript"

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semesterLogin.html(unfinish, in process)

courseDB.html



Visual Schedule Builder Plus

Academic Schedule BuilderSemester Schedule BuilderCourse List Database

Select Course:

Faculty

ENSE 4003.00 Credits
Systems Engineering Design Project
Description: Students are given the opportunity to propose, develop and present engineering design projects which

ENEL 387

ENSE 496AC

ENSE 496AD

ENSE 472

ENSE 400

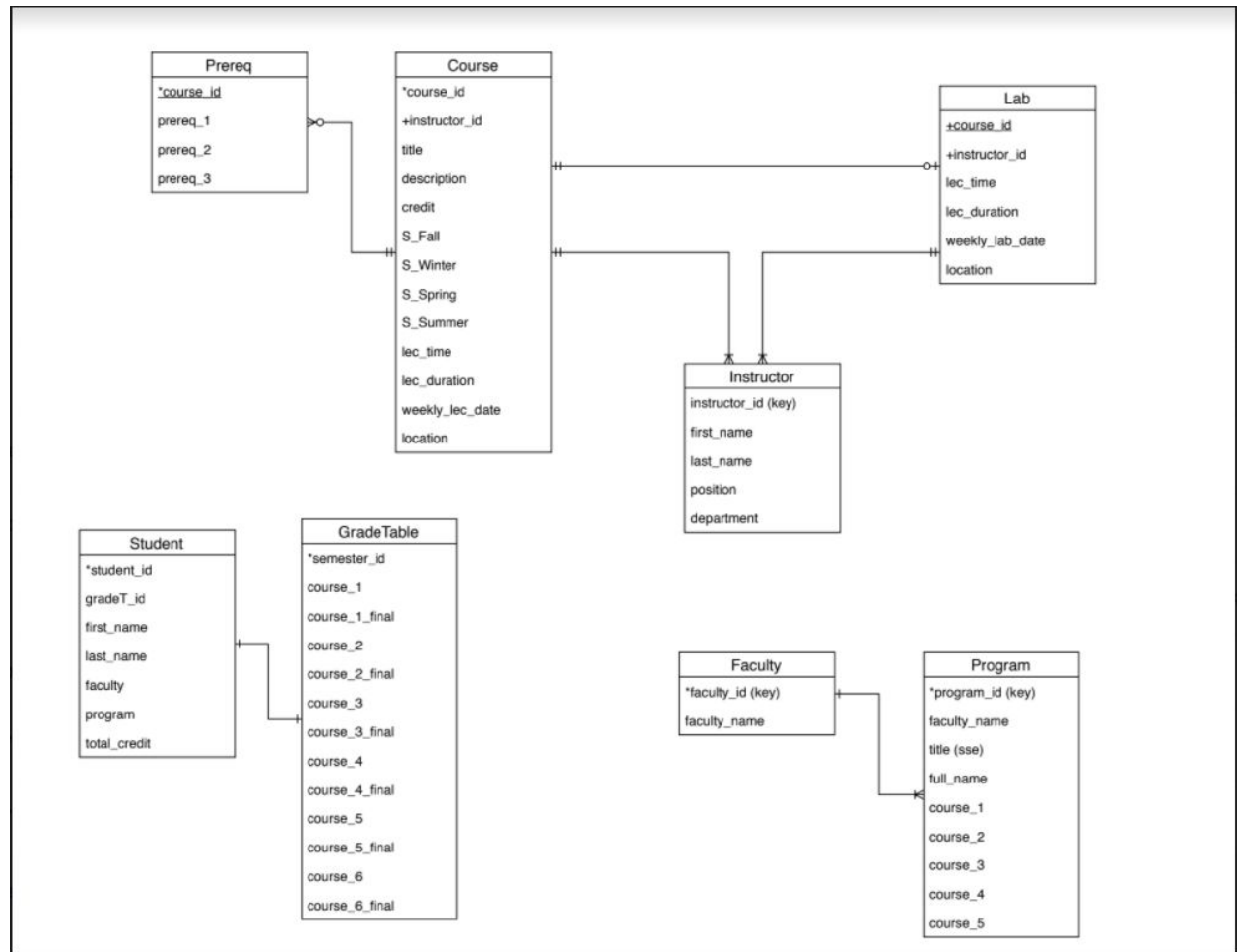
- Course Name: Systems Engineering Design Project
- ***prerequisites: ENSE 470 ***
- Labels: Project Class, *****
- Course Description: *****
- Professor have taught:
- History Average: *****
- TextBook: (Not required)
- Course content:
 - Quiz: No
 - Project: Yes
 - Lab: No
 - Syllabus:
 - Assignment: 0%
 - Lab: 0%
 - Quiz: 0%
 - Midterm: 0%
 - Final Exam: 0%

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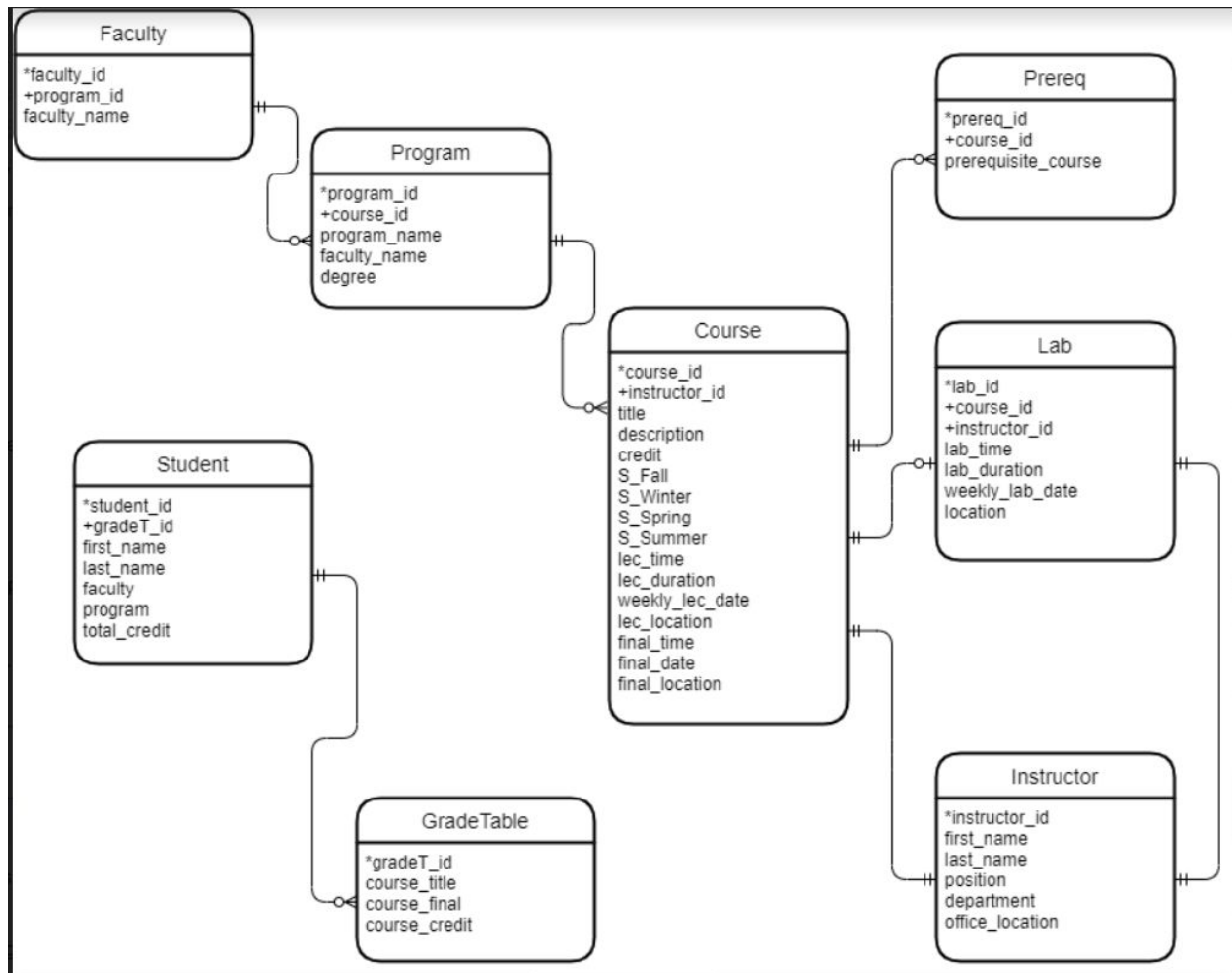
Credit:

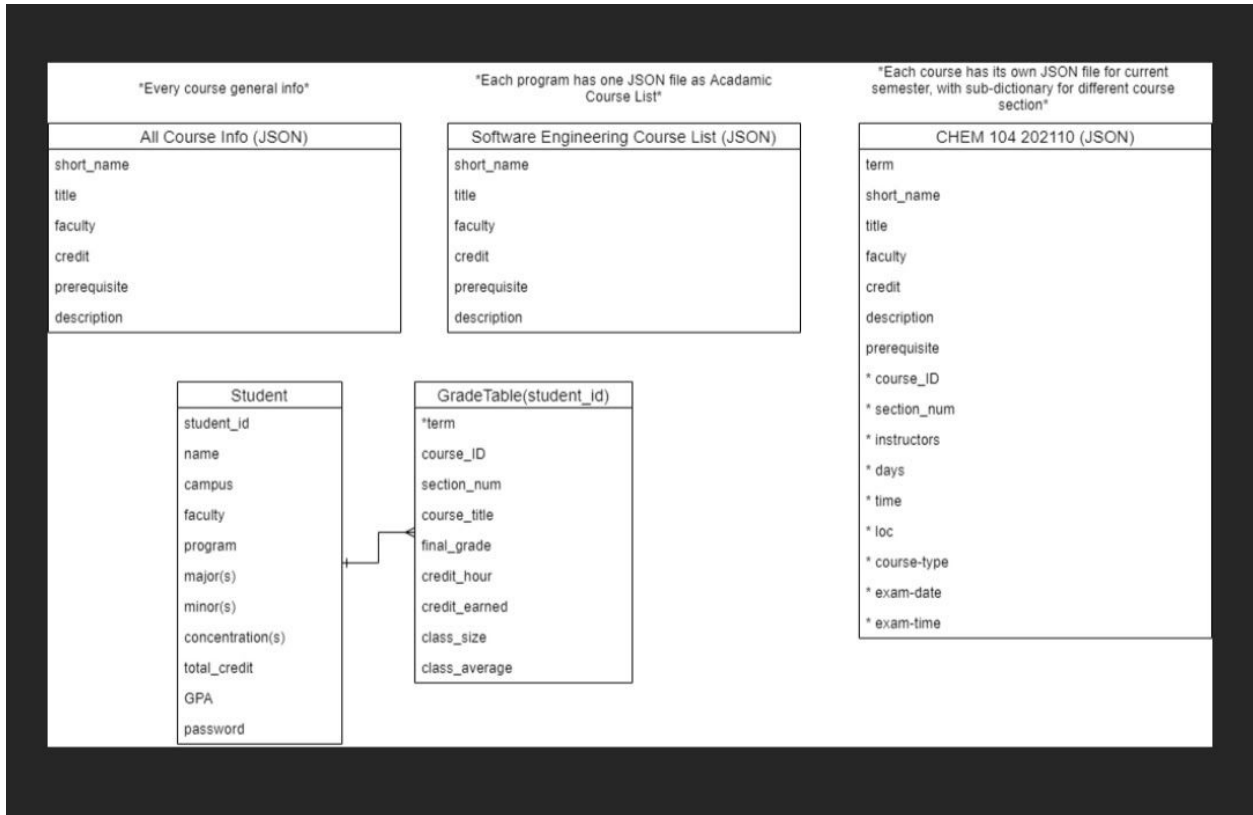
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Discussion of the Entity Relationship Diagrams; version1



version2



version3

courses information of database

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
hort_nam	title	faculty	course_num	credit	prerequisite	description															
CHEM 104	General CI CHEM		104	3	CHEM 30 A	An introduction to the fundamental principles of chemistry. Topics discussed will include atomic structure, bonding, stoichiometry, enthalpy, solutions, organic compounds. L															
ENGG 123	Engineering ENGG		123	3		Students will be introduced to the concepts of engineering design and communications. In addition, the consequences of engineering projects on society will be explored.															
ENGG 140	Mechanics ENGG		140	3	MATH 110	Introduction to engineering mechanics including: force vectors, statics of particles and rigid bodies, centroids, mass centres, construction of free body diagrams, analysis of															
ENGG 100	Engineering ENGG		100	3		Fundamentals of graphical communication and analysis. Manual and computer-aided sketching and drawing techniques; orthographic and pictorial projections; multi-view															
ENGG 303	Engineering ENGG		303	3	STAT 160 C	Fundamentals of engineering economics and project financials. Social and environmental design making time value of money, cash flows, interest, equivalence, cost estimati															
ENGG 401	Engineering ENGG		401	3	One of EN	Canadian law and professional engineering legislation topics include: environmental law, tort liability, contracts, tenders, corporations partnerships, patents, industrial design															
ENGG 411	Safety Syst ENGG		411	3	STAT 160 C	Professional engineering responsibility towards safety includes introduction to health and safety programs; workplace incident assessments; risk hazard identification (from v															
MATH 110	Calculus I MATH		110	3	Precalculus	An introductory class in the theory and techniques of differentiation and integration of algebraic and trigonometric functions. Topics include limits, optimization, curve sketch															
MATH 122	Linear Alge MATH		122	3	Precalculus	A course intended to introduce students to elementary linear algebra, particularly at a computational and applied level. Topics include matrices and systems of equations, inv															
MATH 111	Calculus II MATH		111	3	MATH 110	Differentiation and integration of exponential and logarithmic functions; methods of integration and applications; indeterminate forms, l'Hospital's rule and improper integr															
MATH 217	Differential MATH		217	3	MATH 111	Ordinary differential equations, modelling with differential equations, Laplace transforms.															
MATH 213	Vector Calc MATH		213	3	MATH 111	A study of vector functions and functions of several variables and their derivatives; Applied maximum and minimum problems, Lagrange multipliers, multiple integration, inte															
CS 110	Program CS		110	3	Precalculus	An introduction to problem-solving techniques, the fundamental concepts of programming, and the software design process. Topics will include: data types, control structur															
CS 115	Object-Ori CS		115	3	CS 110	with This course focuses on the concepts of object-oriented programming. Topics include data abstraction, classes, composition and inheritance, subtyping, dynamic binding, poly															
CS 210	Data Struct CS		210	3	CS 115	and This course introduces data abstraction, data structures and their implementations, the basics of algorithmic analysis, and the fundamental computing algorithms. Topics incl															
CS 335	Computer CS		335	3	CS 210,	an Network architectures and protocols, networked applications, reliable data delivery, routing and forwarding, local area networks, resource allocation, mobility, reliability thr															
CS 340	Advanced CS		340	3	CS 210	Fundamental algorithms: depth- and breadth-first traversals, pattern matching, and graph algorithms. Algorithmic strategies: brute-force, greedy, divide-and-conquer, backtra															
CS 350	Programm CS		350	3	CS 210	Programming language genealogy and design. Imperative, functional, and object-oriented language paradigms. Context-free grammars and syntax trees. Data types, control, c															
CS 372	Software E CS		372	3	CS 215	Fundamental principles of designing programs and developing large software systems that meet specifications and that are safe, secure, reliable and maintainable. Software															
CS 375	Database CS		375	3	CS 215	Information management: concepts and applications. Motivation for database systems. Components of database systems. Data modeling: conceptual, spreadsheet, relation															
ENGL 100	Critical Re: ENGL		100	3		This course develops students' proficiency in critical reading and writing through the study of a wide range of non-literary and literary texts, and the study of composition, wit															
PHYS 119	General Ph: PHYS		119	3	PHYS 109 A	(Continuation of PHYS 109: Fluid mechanics, heat and thermodynamics, waves, sound, radiation, electrostatics and electric current.															
PHYS 201	Electricity PHYS		201	3	MATH 213	An introduction to electricity and magnetism for science and engineering students, covering the topics of electrostatics, D.C. circuits, magnetism, and electromagnetic induc															
ENEL 280	Electrical ENEL		280	3	MATH 111	D.C. circuits, Kirchhoff's voltage and current laws, equivalent circuits, introduction to mesh and nodal methods, superposition, maximum power transfer, capacitors, inductors, tr															
ENEL 281	Signals, Cir ENEL		281	3	MATH 217;	The introductory aspects of signals, circuits and systems including: AC circuit analysis, frequency response, resonance, passive and active filters, second order transient analys															
ENEL 282	Semicond ENEL		282	3	ENEL 280	Semiconductor materials and conduction principles. The characteristics of common semiconductor devices, including: PN junction diodes, bipolar and field effect transistors															
ENEL 383	Anal Sys ENEL		383	3	ENEL 282	Application of electronic components and systems. Topics include load control through active components, operational amplifier applications in amplifier, design making a															
ENEL 384	Digital Ele ENEL		384	3	ENEL 282	The introductory aspects of digital electronic circuits, including basic principles of digital systems, logic function and gates, boolean algebra and combinational logic, introduct															
ENEL 380	Automatic ENEL		380	3	ENIN 233	Programmable logic controllers, ladder logic, latches, timers, counters, flow control, and data handling instructions, sensors and actuators, state based design. Open & closed															
ENEL 380	Automatic ENEL		380	3	ENEL 380	A study of the interrelationships between the hardware and software aspects of digital electronic circuits, including basic principles of digital systems, logic function and gates, boolean algebra and combinational logic, introduct															
Sheet1																					

Next up

To continue finishing up all the coding work including css, JavaScript, and JSON, as well to beautify the website interface. Then, to organize all the documents in the github.