## Proposal Presentation

**Red Pocket** 

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## Presentation Agenda

- 1. Project overview/ purpose
- 2. How the program will work
- 3. Software development process
- course info collecting
- data storage
- user data collecting
- schedule showing

## **Project Overview**

#### Goal:

Given selected courses, generate all possible course schedules that ensure each course valid term(s) and correct position in a sequence.

#### **Source of Data:**

University of Chicago Course Catalog: terms offered, prerequisites, requirements of a program for major and minor

## Inputs

Major, minor, electives

Courses to complete

Start term

End term

### **Outputs**

Pass:

All possible course schedules

-- only know terms offered

-- parallel sequences

Fail: TBD

## **Course Info Collecting**

Crawling catalogue pages

- ☐ Major, minor, general education
  - ☐ Ex. Economics

Requirements, electives, opening term, prerequisites, sequence

■ Data storage. Ex. csv, SQL

#### **Summary of Requirements**

GENERAL EDUCATION		
One of the following:		200
MATH 13100-13200	Elementary Functions and Calculus I-II	
MATH 15100-15200	Calculus I-II	
MATH 16100-16200	Honors Calculus I-II	
Total Units		200

MAJOR		
One of the following:		100
MATH 13300	Elementary Functions and Calculus III *	
MATH 15300	Calculus III *	
MATH 16300	Honors Calculus III *	

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#### Electives

Students choose a minimum of four additional economics courses to broaden their exposure to areas of applied economics or economic theory. Of the BA degree's four elective requirements, three must be economics courses offered by the University of Chicago. These courses must have a higher course number than ECON 20300 The Elements of Economic Analysis IV.

One of the following courses may count as an outside elective:

Computer Science		
CMSC 10600	Fundamentals of Computer Programming II	100
CMSC 12100	Computer Science with Applications I	100
CMSC 12200	Computer Science with Applications II	100
CMSC 15100	Introduction to Computer Science I	100

#### CMSC 12100. Computer Science with Applications I. 100 Units.

This course is the first in a three-quarter sequence that teaches computational thinking and skills to students in the sciences, mathematics, economics, etc. The course will cover abstraction and decomposition, simple modeling, basic algorithms, and programming in Python. Applications from a wide variety of fields serve both as examples in lectures and as the basis for programming assignments. In recent offerings, students have written programs to simulate a model of housing segregation, determine the number of machines needed at a polling place, and analyze tweets from presidential debates.

Instructor(s): A. Rogers, B. Sotomayor Terms Offered: Autumn

Prerequisite(s): Placement into MATH 15200 or higher, or by consent.

Note(s): This course meets the general education requirement in the mathematical sciences.

## **User Data Collecting**

ENROLLMENT QUARTER 2016 FA	START QUARTER 2016 FALL END QUARTER 2020 FALL					
MAJOREconomics	COURSE PREFERRED					
MINORAnthropology COURSE PREFERRED						
OTHER INTERESTS Art history COURSE PREFERRED						
GENERAL EDUCATION INTEREST Sociology COURSE PREFERRED						
THE NUMBER OF COURSE INTENDED TO TAKE4						
COURSE COMPLETED MATH 13100, ECON 20000, ANTH 21107						

SUBMIT

## **Show the Schedule**

#### SCHEDULE ONE

17	17	18	18	18	19	19	19	20	20	20
Spring	Fall	Winter	Spring	Winter	Spring	Winter	Fall	Spring	Winter	Fall
MATH 13200	MATH 13300	ECON 20300	ANTH 21420	STAT 23400	MATH 20500	STAT 26100	ANTH 20702	ANTH 21015	ANTH 21201	ANTH 20225
ECON	ECON	MATH	MATH	ECON	CMSC	ANTH	ARTH	ARTH	ARTH	ANTH
20100	20200	19520	19620	21000	10100	20701	14000	29600	29800	21251
CMSC	CMSC	CMSC	ARTH	ANTH	ANTH	ECON	ECON	MATH	MATH	ECON
12100	12200	12300	19700	29700	29900	22000	23000	20600	20800	24000
SOCI	SOCI	SOCI	SOCI	ARTH	SOCI	ARTH	SOCI	SOCI	ECON	SOCI
11100	11200	11300	20000	19800	20002	20000	20230	20440	23001	20560

# Questions?