

# Online Advising Program

Presented by:  
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# Introduction

Advisement for students at CCNY is essential for ensuring students remain on track to graduate.

However, the existing advisement process has problems and needs improvement.



# Most Advisors are Primarily Professors

Advisement isn't their priority

Office hours are limited

Sometimes they aren't even  
available during office hours

Typical Office Hours:

<b>Gertner, Izidor Dr.</b>	NA 8202F	M,W 04:00 – 04:55 PM
<b>Wolberg, George Dr.</b>	NA 8/202N	Wed. 03:30 – 04:30 PM
<b>Peng, Zheng Dr.</b>	NA 8/203	Tu,Th 01:00 – 02:00 PM
<b>Zhu, Zhigang Dr.</b>	NA 8211	Thu. 02:30 – 04:30 PM



# Limitations Of Advisors

Can't memorize curriculum

Not fully aware of pre/co-requisites

Curriculum changes sometimes

Don't know each student's specific progress

Can't know what sections of each course will be available

Civil Engineering Curriculum						
<b>Math 20100</b> Calculus I Pre: Math 19500 (C min.) 3 cr.	<b>Chem 10301</b> General Chemistry I Pre: Math 19500 4 cr.	<b>Engl 11000</b> Freshman Composition 3 cr.	<b>Engr 10100*</b> Engineering Design Pre/Co: Math 19500 (min.C) 1 cr.	<b>Liberal Arts</b> (10000 or higher) 3 cr.	<b>Liberal Arts</b> (10000 or higher) 3 cr.	
<b>Math 20200</b> Calculus II Pre: Math 20100 (C min.) 3 cr.	<b>Chem 10401</b> General Chemistry II Pre: Chem 10301, C min. <del>(or 10300)</del> 4 cr.	<b>Phys 20700</b> General Physics I Pre/Co: Math 20200 4 cr.	<b>CSc 10200</b> Introduction to Computing Pre: Math 19500 (C min.) or Pre/Co: Math 20100 (C min.) 3 cr.	<b>Eng 21007</b> Writing for Engineering Pre: Eng 11000 or FIQWS 3 cr.		
<b>Math 20300</b> Calculus III Pre: Math 20200 (C min.) 4 cr.	<b>CE 23100</b> Structural Mechanics Pre: Phys 20700 (C min.), Math 20200 (C min.) & CSc 10200 Pass All 3 cr.	<b>Phys 20800</b> General Physics II Pre: Phys 20700 Pre/Co: Math 20300 4 cr.	<b>CE 20900</b> Structural and Site Plans Pre/Co: CSc 10200 & <del>ACT&amp;KAT</del>	<b>CE 26400</b> CE Data Analysis Pre: CSc 10200 & <del>ACT&amp;KAT</del> Pre/Co: Math 20300 (C min.), Eng121007 3 cr.		
<b>Math 39100</b> Differential Equations Pre: Math 20300 3 cr.	<b>CE 35000</b> Fluid Mechanics Pre: CE 23100 (C min.), CSc 10200 Pre/Co: Math 39100 (C min.) 3 cr.	<b>CE 33200</b> Mechanics Deformable Bodies Pre: CE 23100 (C min.) Pre/Co: Math 39100 (C min.) & CE 26400 4 cr.	<b>Science Elective</b> <b>EAS 32800:</b> Global Environ. Haz. Or <b>Bio 350000:</b> Microbiology	<b>Liberal Arts</b> 3 cr.		
<b>Math 39200</b> Linear Algebra/Vector Pre: Math 20300 3 cr.	<b>CE 34000</b> Structural Analysis Pre: CE 33200, CE 20900 Pre/Co: CE 33500 & Math 39200 3 cr.	<b>CE 36500</b> Hydrology & Hydraulic Engr Pre: CE 35000 (C min) or ME 35600 or CE 34100 3 cr.	<b>CE 33500</b> Computational Methods in CE Pre: Math 39100 (C min.), CE 26400 & 33200, CSc 10200 Pre/Co: Math 39200 3 cr.	<b>CE 32600</b> Transportation Planning Pre/Co: CE 33500 3 cr.	<b>CE 37200</b> Environmental Impact Assessment Pre: CE 26400 & Chem 10401 (C min.) & [CE 35000 (C min) or ME 35600 or CE 34100] 3 cr.	
<b>CE 34500</b> Soil Mechanics Pre: CE 35000 (C min.), CE 26400 & CE 33200 3 cr.	<b>CE 44100</b> Reinforced Concrete Pre: CE 26400 & CE 34000 3 cr.	<b>CE 31600</b> CE: Decision & Sys. Analysis Pre: CE 26400, CE 33500 & Math 39200 3 cr.	<b>CE 32700</b> Transportation Systems Engr. Pre: CE 26400 Pre/Co: CE 34500 3 cr.	<b>Engineering Science Elective</b> <b>Engr 23000:</b> Thermodynamics Pre: Chem 10301 (C min.), Phys 20800 (C min.) & Math 20300 (C min.) 3 cr. Or <b>Engr 20400:</b> Electrical Circuits Pre/Co: Phys 20800 (C min), Math 20300 (C min.) 3 cr.		
<b>Specialization Core (select one of the four areas) (take two courses)</b>						
<b>Environmental</b> CE 45100: Env. Water Resource CE 48200: Environmental Eng'ng II 6 cr.	<b>Transportation</b> CE 52000: Traffic Engineering CE 54000: Highways Eng'ng <b>Structures</b> CE 44000: FEA of Structures CE 44200: Structural Design 6 cr.	<b>Multidisciplinary</b> (take two courses) CE 44000: FEA of Structures CE 44200: Structl Design CE 45100: Env Water Resrcs CE 48200: Env Engr II CE 52000: Traffic Eng'ng CE 54000: Highway Eng'ng 3 cr.	<b>CE 40500</b> Civil Engineering Mgmt Pre: CE 34000, CE 31600 3 cr.	<b>CE 43500</b> Dynamics of CE Systems Pre: CE 33200 & CE33500, Math 39200 3 cr.	<b>CE 47400</b> Environment Engineering Pre: CE 36500 & CE 37200 3 cr.	
<b>Specialization Electives (Take 2 courses from same specialization option selected above)</b>						
<b>Environmental</b> Bio 35000: Microbiology CE 51000: Indep. Study CE 57100: Water Quality Chem 26100: Org. Chem. I 6 cr.	<b>Transportation</b> CE 50500: Constr. Proj. Man CE 51000: Indep. Study CE 52500: Geo. Des. Facil. CE 52600: Rail Sys Design CE 54100: Hwy & Airport CE 54500: Urban Transport. CE 59000: Foundation Engr 6 cr.	<b>Structures</b> CE 51000: Indep. Study CE 53000: Adv Strength CE 55000: Adv Reinf Concrete CE 59000: Foundation Eng'ng ME 46100: Eng'ng Materials 6 cr.	<b>Multidisciplinary</b> (take two more courses from this category above) 6 cr.	<b>CE 40100</b> Reviews of Eng'ng Fundamentals (Pass/Fail) Pre: Senior/Graduate 1 cr.	<b>CE 50900</b> Senior Design Project Pre: senior standing Pre/Co: CE 32600, CE 32700, CE 47400 & CE 44100. 3 cr.	<b>Liberal Arts</b> (20000 or higher) 3 cr.



# **What Do Students Think?**

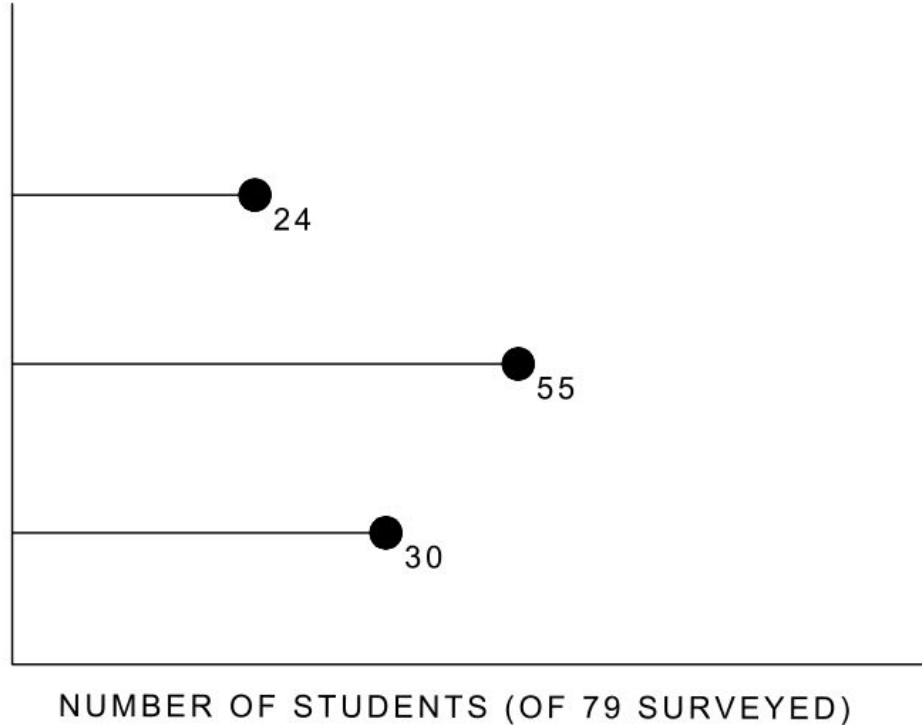
# Survey Results I

## ADVISOR INVOLVEMENT

ADVISOR HELPS DECIDE  
ON COURSES

SUDENT DECIDES ON  
COURSES BY THEMSELF

END UP TAKING COURSES  
DIFFERENT THAN THOSE  
DECIDED AT ADVISEMENT



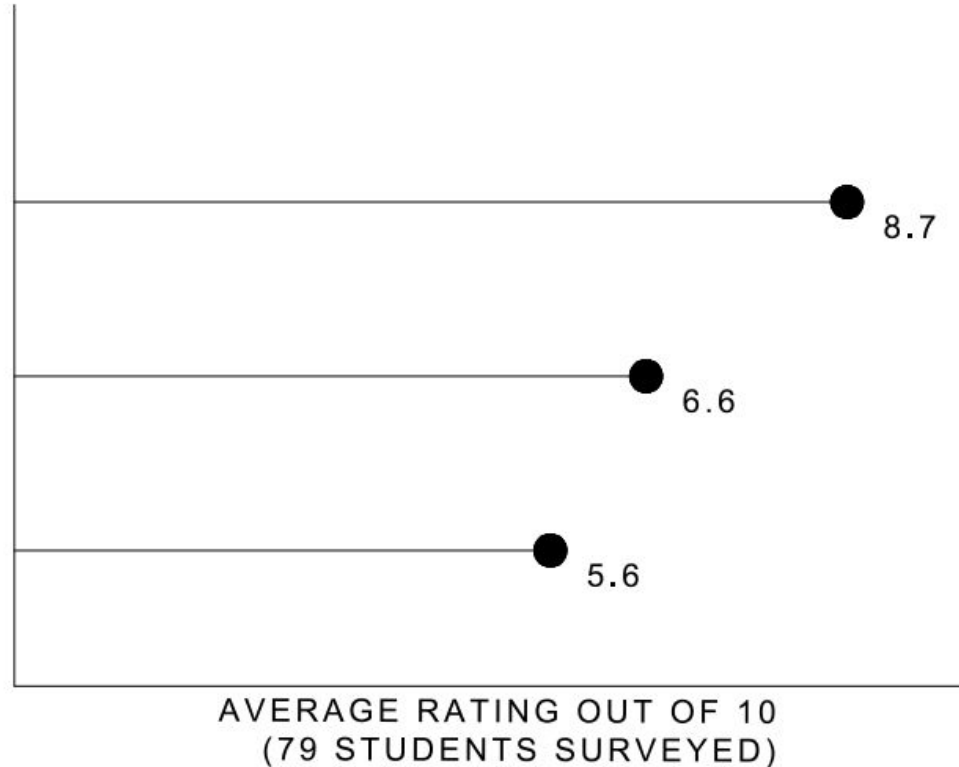
# Survey Results II

## ISSUES WITH ADVISING

DIFFICULTY IN MEETING  
WITH AN ADVISOR

DIFFICULTY  
DETERMINING WHAT  
COURSES TO TAKE

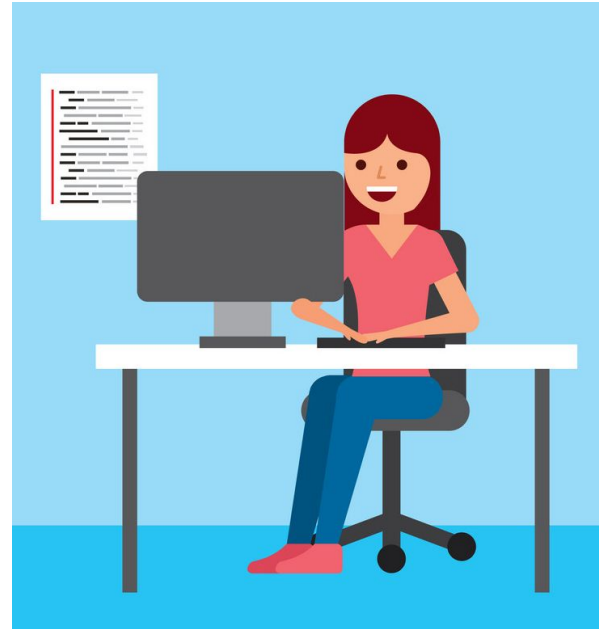
OVERALL RATING OF  
CURRENT ADVISING  
PROCESS



# Solution: An Automatic Advising Program

An automatic advising program will have the following implications:

1. Elimination of advising appointments
2. A more precise and efficient way to determine courses
3. A tool to help students explore what their exact schedule could look like in the next semester



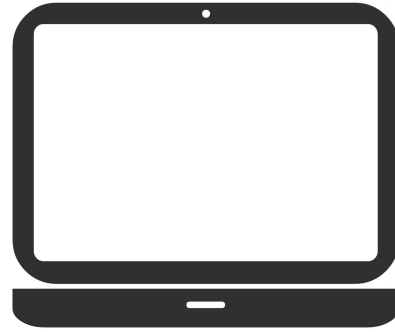


# No More Appointments

The program will be available online.

Students will be able to log into the program at whatever time is convenient for them.

The difficulty of meeting advisors during office hours is eliminated.



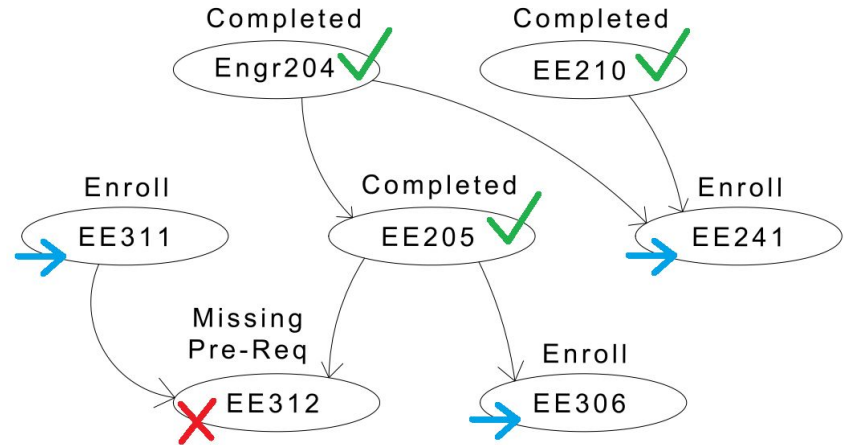
# Intelligently Track Students' Progress

Will store data on the student's progress

Can make optimized suggestions for courses

Flags discrepancies in the student's choice in courses

More precise and efficient than an advisor



# Generate Schedules

Can generate possible schedules

Automatically detect conflicting meeting times

Easily test out different schedule options all on one platform

1 class section(s) found

CHE 22900 - Chemical Engineering Thermodynamics I				
Class	Section	Days & Times	Room	Instructor
44949	M-LEC Regular	TuTh 11:00AM - 12:15PM Tu 2:00PM - 3:45PM	Steinman 161 Steinman 161	Alexander Couzis Alexander Couzis

3 class section(s) found

BME 31000 - Experimental Methods in Biomedical Engineering I				
Class	Section	Days & Times	Room	Instructor
44857	BC-LEC Regular	Mo 1:00PM - 1:50PM We 1:00PM - 4:00PM	TBA Steinman 405	Robert Majeska, Ryan Williams Robert Majeska, Ryan Williams
44843	BC1-LEC Regular	Mo 1:00PM - 1:50PM Tu 12:30PM - 3:30PM	TBA Steinman 405	Robert Majeska, Ryan Williams Robert Majeska, Ryan Williams
44844	BC2-LEC Regular	Mo 1:00PM - 1:50PM Th 12:30PM - 3:30PM	TBA Steinman 405	Robert Majeska, Ryan Williams Robert Majeska, Ryan Williams



# Program Mock-Up

## Auto-Advisor

Mon
Tue
Wed
Thu
Fri

9am		ENGR230 <sup>x</sup>		ENGR230 <sup>x</sup>	
12pm					
3pm	CSC210 <sup>x</sup>	CSC212 <sup>x</sup>	CSC210 <sup>x</sup>	CSC212 <sup>x</sup>	
6pm	EE457 <sup>x</sup>		EE457 <sup>x</sup>		

Hovering over a course in this possible schedule will show the course's pre-reqs, as well as future courses that required it as a pre-req.

The program checks available sections of upcoming courses to ensure that a schedule with those courses is possible. It then displays a possible schedule to the student.

List of suggested courses

Suggested Courses	
EE457	Edit Section
ENGR230	Edit Section
CSC210	Edit Section
CSC212	Edit Section

Students can explore their options for courses with multiple sections

Students can edit the program's initial course suggestions

Edit List

Other Options	Still Need
EE333	One course from: EE333, EE339, EE342, EE357, ...
EE339	CSC220
EE342	CSC221
EE357	CSC332
EE371	CSC342
EE453	CSC343

A list of other courses that the student is eligible to take

A list of courses that the student still needs to graduate

# Estimated Budget / Timeline

Important Dates -

Beta Version Release:

Fall 2020 (6 months)

Final Version Release:

End of Fall 2021

(approx. 15 months)

Total Cost: \$1,250,000

Quarter	Days	Cost
<b>1<sup>st</sup> Quarter: Database Design, Project Inauguration</b>	3 months/ 90 days	\$250,000
<b>2nd Quarter: Database Design, Project Inauguration</b>	3 months/ 90 days	\$250,000
<b>3rd Quarter: Database Design, Project Inauguration</b>	3 months/ 90 days	\$250,000
<b>4th Quarter: Database Design, Project Inauguration</b>	3 months/ 90 days	\$250,000
<b>Deployment Phase</b>	2 months/ 60 days	\$250,000
<b>Additional buffer days</b>	1 month/ 30 days	\$0
<b>Total</b>	15 months	1,250,000



**Doesn't  
DegreeWorks  
Already Do This?**



## **No: DegreeWorks Falls Short**

Mainly just functions as a checklist


Students still need to review a lot of things manually

No functionality to explore possible schedules

## **Why not update DegreeWorks?**

We don't want to affect all of CUNY

Engineering students need this tool the most

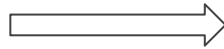
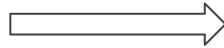


# Recap

## Problem

Meeting Advisors

Planning Courses



## Solution

Available Online

Uses Stored Data to Optimize  
Course Selection Process



# Conclusion

Students will:

1. Be able to save time and effort on advising
  - They can focus more on classwork
2. Make fewer mistakes / better choices in course selection
  - They can graduate on time

