Advice for 3-2 Combined Plan CS Students

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Fall 2022

Advising

I am the CS advisor for Combined Plan students

Email me with questions

(sedwards@cs.columbia.edu)

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Your “class dean” at the Center for Student Advising (CSA) can advise on non-CS class questions

I know remarkably little about, e.g., English classes

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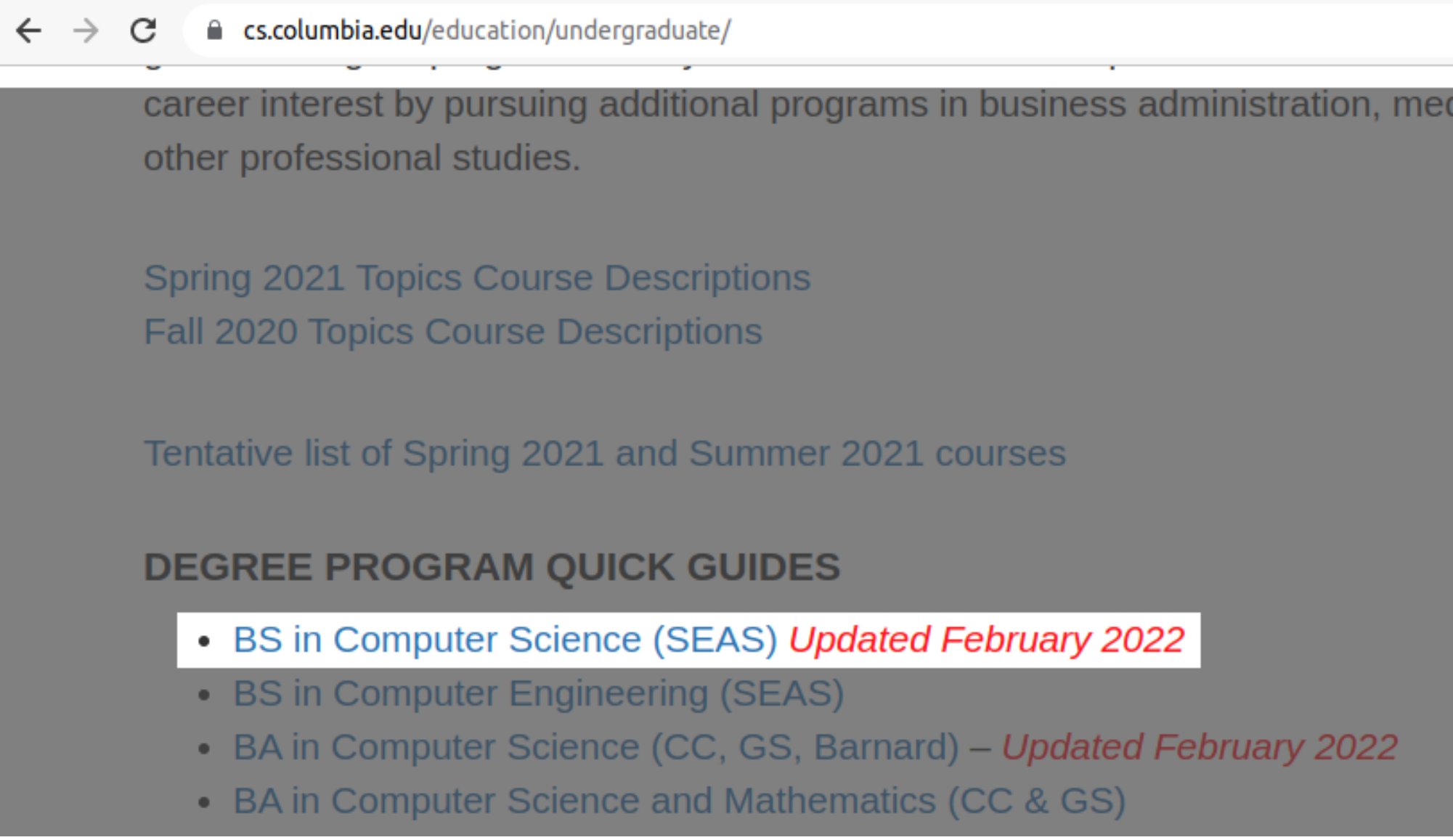
Intrepid administrator Clarissa Peña helps with bureaucracy

(clarissa@cs.columbia.edu)

She’s on your side

The SEAS Quick Guide

CS website → Academics → BS/BA Programs → BS in Computer Science (SEAS)



Quick Guide for SEAS CS Students

This Quick Guide is for SEAS students thinking of majoring or minoring in Computer Science. It explains how the program is structured, what courses to take, and when to take them.

The Computer Science Major at Columbia for SEAS

The Undergraduate program consists of a minimum of 63 or 65 points and includes the following: ENGI E1006 which is a prerequisite to the CS major, the CS Core consisting of 7-8 classes (24-26 points), 7 track courses (21 points), and 15 points of general technical electives.

Note: All courses toward the CS major must be taken for a letter grade. A maximum of one course worth no more than 4 points passed with a grade of D may be counted towards the major. Any course exceptions to the noted requirements toward the CS major, as well as all thesis, projects, special topics, and general technical electives must be approved by the faculty advisor in writing prior to enrolling in these courses.

Graduates of the Computer Science program can step into career positions in industry or government, or continue their education in graduate or professional degree programs in a wide range of disciplines.

Getting started

Take Intro to Computing for Engineers and Applied Scientists (ENGI E1006) during your first year. Take the introductory sequence in Computer Science (W1004/W1007, W3134/W3137, W3157, and W3203) in your first two years. This will enable you to complete most of the CS core and to start your upper-level CS track during your junior year, which will provide you with a broad choice of electives in your chosen track. The first three courses (W1004/W1007, W3134/W3137, W3157) should be taken in that order. W3203 can be taken anytime after W1004 or concurrently with W1007.

Take Intro to Computer Science and Programming in Java (W1004) or Honors Intro to Computer Science (W1007) in your first year if possible. This course introduces you to basic computer science concepts and problem-solving techniques using Java.

CS Degree Requirements

Core

24 points

Data Structures, Discrete Math, Linear Algebra, . . .

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1. Intro to CS (1004/1007)
2. Data Structures (3134/3137)
3. Advanced Programming (3157)
4. Discrete Math (3203)
5. Linear Algebra (3251)
6. CS Theory (3261)
7. Fundamentals of Computer Systems (3827)

Required for entering the 3-2 program

CS Degree Requirements

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24 points

Data Structures, Discrete Math, Linear Algebra, . . .

Track

21 points

Applications, Intelligent Systems, Systems, . . .

Usually *n* required courses + *m* chosen from a list

4995 and 6998 courses *always* require advisor approval because they vary by track

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Data Structures, Discrete Math, Linear Algebra, . . .

Track — 21 points

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General Technical Electives — 15 points

3000-level in "mathematics, science, engineering or closely related disciplines." COMS usually OK.

Must be advisor-approved. One may be"tech-light"

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You have exactly two years at Columbia

You must take 60 non-transferred points

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60 ÷ 3 ÷ 4 = 5 classes per semester

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Flaking out on classes, for whatever reason, is the number one problem combined plan students have.

Extending your time here is nearly impossible.

Selecting a Track

Read the SEAS Quick Guide

Pick the track with interesting required courses

Switching tracks is possible; required courses of one track usually electives or general technical electives for another

Importing Required Classes

If you took a required course elsewhere, you may import it to avoid taking it again. Imported classes do not count toward the 60-point requirement

Clarissa and I are here to help with the import process

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Importing a class is to avoid needlessly repeating a requirement

- Submit your import requests through `http://mice.cs.columbia.edu`
- I'm happy to approve imports of most basic classes
- I may refer you to the instructor for advanced classes

Double-Majoring and Minoring

In a word: don't

3-2 students don't have the time to complete another program's requirements

Future employers and graduate schools don't care

Do well in your CS courses; take electives for the rest

Better to do an independent project with a professor whom you can impress

Course Names

COMS W4115 001 Programming Languages and Translators

COMS: Computer Science
CSEE: Joint Computer Science and Electrical Engineering
EECS: Joint EE and CS
CSOR: Joint CS and Operations Research

W: Just ignore this. Also ignore an "E"

3xxx: Introductory undergraduate level
4xxx: Advanced undergraduate, MS, and PhD
6xxx: Graduate level; undergraduates w/ instructor permission

001: Section number

Registering For CS Classes

4000- and 6000-level CS Courses are waitlist-only

Everybody joins the department- or instructor-managed waitlist

Students are enrolled based on need, not order in line

3-2 students often get priority because they are under significant time pressure

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“Blocked”: you can only join the waitlist

“Restricted”: you likely won’t ever be allowed to enroll

Graduating

Columbia Student Services Online (SSOL: ssol.columbia.edu)

Among other things, has a Degree Audit Report (DAR)

An unreliable indicator of your progress

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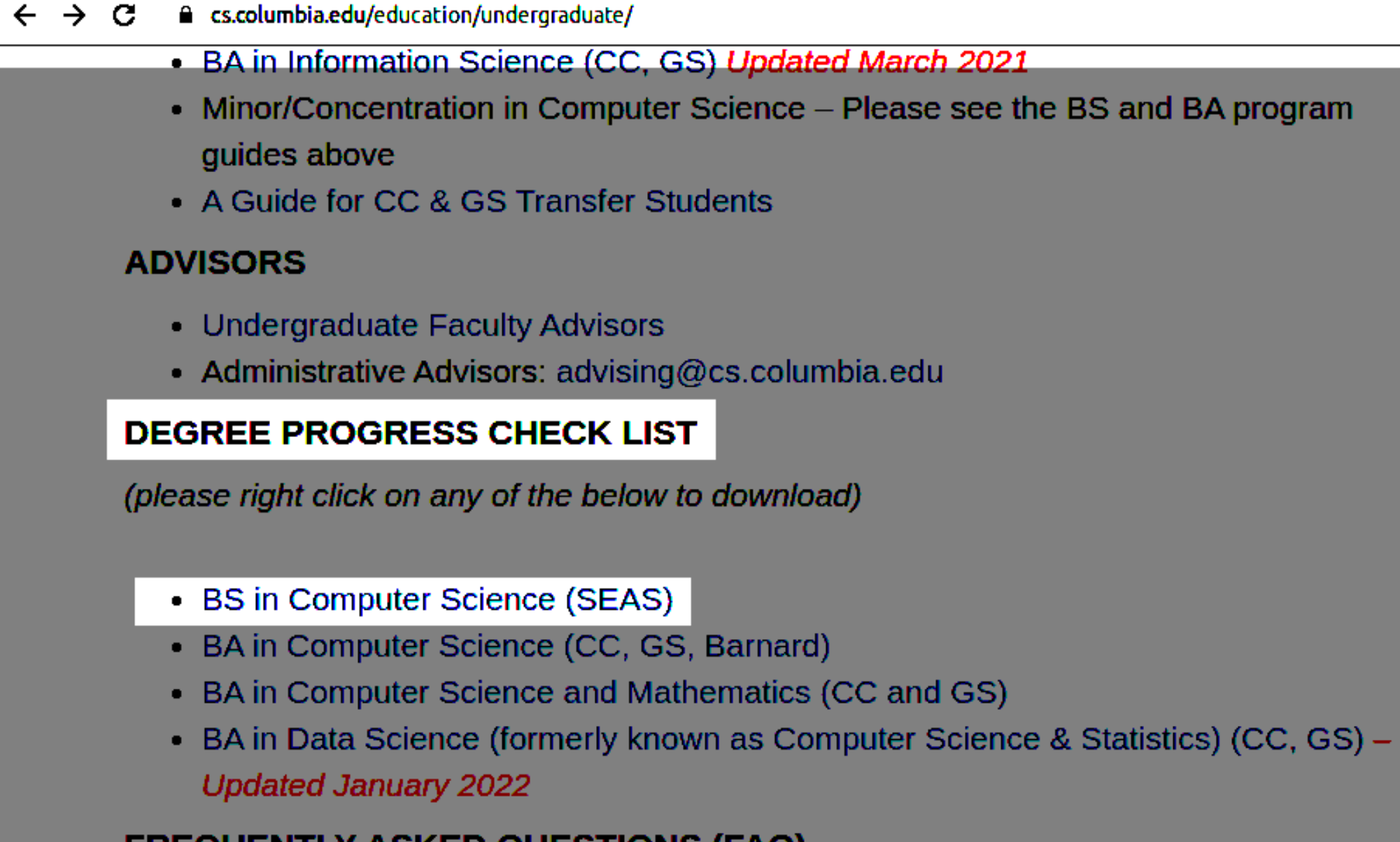
Not to worry $\rightarrow$ Clarissa and I clear you to graduate

We follow your transcript and imported classes

Your Degree Progress Checklist

CS website → Academics → BS/BA Programs → BS in Computer Science (SEAS)



	A	B	C
1		**SEAS progress check**	
2			
3	**NAME:**		
4	**UNI:**		
5	**TRACK:**		
6			
7		**ENGI E1006 (Required)**	
8			
9		**CORE**	
10		W1004 or W1007	
11		W3134 **(3pts) or** W3137 **(4pts)**	
12		W3157 Advanced Programming **4pts**	
13		W3203 Discrete Mathematics	
14		Linear Algebra (COMS 3251, MATH 2010, MATH 2020, APMA 3101, or APMA 2101)	
15		W3261 Computer Science Theory	
16		CSEE W3827 Fundamentals of Computer Systems	
17		STAT 4001 (formerly SIEO W4150) Probability and Statistics	
18			
19		**Calc I**	
20		**Calc II**	