

## Welcome to Advising!

This page is designed to assist you with your advising questions, and if needed, book an appointment with Prof. Verma. Please note that this page is intended for SEAS students who are majoring in CS and have Prof. Nakul Verma as their assigned faculty advisor. In case you have a different advisor, please [contact them](#) for all your advising questions.

**\*\* BEFORE BOOKING AN APPOINTMENT, make sure of the following. \*\***

- Know the general SEAS CS major requirements [here](#).
- Fully read the FAQs below. Most questions are answered there thus minimizing unnecessary meetings.
- General CS advising questions should be directed to [advising@cs](mailto:advising@cs.columbia.edu).
- In case your question is not fully answered and cannot be resolved over email, you can book an appointment. You should describe the purpose of the meeting/issue in as much detail as possible so that the advisor is prepped for the meetings and can have a more focused discussion.
- Appointments with a vague agenda/description, or for questions that are already answered in the FAQ, or for questions that can be answered fully over the email **will be canceled**.
- All appointment slots are 10 minute long, in case you anticipate a longer meeting, book two slots back-to-back.
- The calender shows all available meeting slots, unfortunately no other meeting slots are available.

Contact information for Prof. Verma:

- Email: [verma@cs](mailto:verma@cs.columbia.edu).
- Office location: [CEPSR 726](#).
- Make appointment: [use this](#).

## Frequently Asked Advising Questions

### General Planning, etc.

- I have general questions regarding track declaration, course planning, etc.

Check out the FAQs [here](#) first.

- **I don't know which track to select, can you help me?**

This is a difficult question and requires a bit of introspection. What makes you excited about CS? What would you like to get out of your CS education? What would like you do after you graduate? Once you have thought about these question, feel free to reach out to your faculty advisor (me) and we can discuss over email or in person.

- **What courses should I take next semester?**

Take a look at the general guidelines [here](#) and [here](#).

- **I cannot register for my preferred courses next semester, what should do?**

You can reach out to the instructor of the course or visit previous semester's course website for fully understanding the enrollment requirements and procedures.

Generally speaking, enrollment priority is given based on your seniority and your track. It is possible that you may not get into your preferred course, in which case you should definitely have some backup courses planned. Generally, getting into courses is not as bad as it may seem, and most of the time you get in the course the second time you try.

For general questions you can reach out to [advising@cs](mailto:advising@cs).

- **I want to add/drop a course after the official add/drop period, what should I do?**

Contact [advising@cs](mailto:advising@cs). Juniors and Seniors should use [this form](#) to drop a course.

- **Can CS courses be double counted for a non CS minor requirements?**

Yes, you can double count any 3k or above CS course that is being counted towards your general tech elective, track or other CS major requirement for your non-CS minor requirement.

- **I have transfer credits, can they count towards my minor?**

We can only comment on your CS major. You should reach out to the department of the minor and/or your CSA (Center for

Student Advising) advisor to check exactly if your transfer credit count towards it.

- **Some of the courses I have taken are not showing up on MICE what should I do?**

You can reach out to [advising@cs](mailto:advising@cs) to have this resolved.

- **Am I on track to graduate on time?**

Take a look at the general guidelines [here](#). Ideally you should aim to complete all 9 core courses and 1-2 track or general tech electives by the end of junior fall.

- **I want to register for courses that have overlapping times causing a registration conflict, is it possible register for the courses?**

I cannot approve for registration of overlapping courses and this is strongly discouraged. You should contact your CSA advisor and seek approval from course instructors involved for further guidance.

- **Will the course ABC be offered in semester XYZ? or will another section of the course ABC open up?**

Please contact the course instructor.

- **Do courses taken in the summer count towards the major?**

Yes.

## Non-Major Courses

- **I have a question about a course not related to CS major. Can you help me?**

Your CS faculty advisor (ie me) does not have any authority to comment/advice/approve courses not related to your CS major. You should reach out to your CSA (Center for Student Advising) advisor for any guidance.

- **I have a question about my non-tech elective requirements. Can you help me?**

Your CS faculty advisor (ie me) does not have any authority to comment/advice/approve courses not related to your CS major. You should reach out to your CSA (Center for Student Advising) advisor for any guidance.

## Core Courses

- **I already know the material for one of the required CS core courses, can I skip the course?**

You should contact the instructor for the course and get written confirmation from them that you are allowed to waive it. If approved, make sure that they notify me and that your MICE record gets updated accordingly. Note that while you are allowed to skip taking a core course, you still need to have the corresponding core credits. That means you need to take a CS 3k or above course as a substitute to count towards the core credits for your major. You can only use CS courses to substitute.

This also applies to "Intro to Computing" ENGI 1006.

- **Can I take "Essential Datastructures" (COMS 3136) for the Datastructures requirement?**

No. You must either take "Data Structures in Java" (COMS 3134) or "Honors Data Structures and Algorithms" (COMS 3137) for fulfilling the datastructures requirement.

- **I already know the material covered in core "Linear Algebra" course, can I take something else?**

If you already know the material covered in linear algebra, you can substitute it with Modern Algebra (eg. MATH 4041/2).

## Tech and Track Electives

- **What courses can be approved for general tech electives?**

Basically any 3k or above course from the list below can count towards general tech elective requirement:

- Any engineering school course, except IEOR Lean Launchpad course (which is an entrepreneurial course)
- Any course in Math, Stats, Physics, Chemistry, Biology.
- Courses from Econ: 3k or above course on Game theory (eg ECON 4415), 3k or above course on Econometrics (eg ECON 3412, ECON 4413).
- Courses from Philosophy: 3k or above course on Symbolic Logic or some grad level variant like Modal Logic (only one such course will count)

- Exceptions:

- "Tech light" courses (see the next faq for what is a tech light course) - at max one tech light course will be approved towards the general tech elective requirement.
- COMS 3999 Fieldwork course cannot be counted towards the general tech elective requirement.
- A simpler or an alternative version of a course that is being counted towards your core or track cannot be counted towards your general tech electives.
  - example 1: if you are counting Computational Linear Algebra COMS 3251 towards your core, then you cannot count APMA 3101 for GTE
  - example 2: if you are counting Machine Learning COMS 4771 for your track or GTE, then you cannot count STATS 4241 or COMS 4721 or EE 4903 for any part of your major
- No core course can count towards GTE

Even if you are taking one of the approved courses from above, you still need to contact your faculty advisor (email me) for an explicit approval for each course, so that they update your MICE record accordingly.

- **What is a "tech-light" course and what are the restrictions for general technical elective courses?**

A "tech light" course is basically a course offered in a technical department that does not have a heavy technical (CS/EE/Math/etc) component to it. Example "tech light" courses (not a complete list): "computing in society", any course with the word "policy" in it, usually any course with the word "management" or "entrepreneurship" (or a word/phrase with similar meaning) in it, "agile project management", "devops", "building a tech startup", "engineering for developing countries", some seminar-type classes with light technical component and is mostly paper reading, etc.

Note that at most one "tech-light" course (ie 3 units) can count towards the five general tech elective course requirements (ie total of 15 units).

Occasionally, the technical content of "tech light" sounding courses is based on your particular choice of project and how much technical content you contribute. In case your project happens to have significant technical content, such a course can potentially count as a regular general tech elective. Such determination can only be made once you have completed the course and have your contributions (ie your part of the project work, etc.) reviewed by your faculty advisor.

- **How can I get a course approved for a general technical elective or for a track requirements?**

You can email your faculty advisor (me) with the relevant details (department, course number, description, course webpage/syllabus, etc).

- **When should I ask for course approval for general technical elective or track requirements?**

You can ask for an approval any time (either before, during, or after you have taken the course). We highly recommend and encourage to seek approval a semester before (just before registration), so that we can catch any potential issues or conflicts that may result in not having the course approved to count towards your CS major requirements.

- **Intelligent Systems Track: There are several courses outside the CS department that are very relevant to the IS Track. Can I count these non-CS courses towards the IS track requirements?**

Please see a detailed description of what is allowed [here](#). MAKE SURE to get an explicit approval from your faculty advisor regardless of the information provided.

- **Requirements state that a 4995 or 6998 topics class can count towards the track requirement (once I get advisor approval). Does that mean I can ask for the approval for any 4995/6998 class?**

Short answer: No, not all topics classes can count for the track. The 4995 or 6998 topics class must be related to track for it to be even considered to be counted towards the track requirement. For example, "Mobile applications" or "Open source development" topics classes will not count towards Intelligent Systems track, or "Privacy Preserving Systems" or "Fundamentals of Speech Recognition" classes will not count towards Foundations track.

- **Can I take a track and/or general tech elective class for Pass/Fail option?**

If you want the course to count for any part of the major (track or general tech elective), then you need to take it for a letter grade.

## Study Abroad, Transfer Credit and Course Imports

- **I am planning to study abroad and/or take courses outside of Columbia, how can I get courses approved to be counted towards my major?**

For each course you want to "import" (that is, count towards your major requirements), you first need to find the equivalent course at Columbia. You should contact the instructor of the course to get the approval for the equivalency. Once they have approved that the course is equivalent, you should check with your faculty advisor (ie me) to verify which part of your CS major requirement your imported course can satisfy. Once both the Columbia course instructor and your CS faculty advisor have approved the outside course, make sure that your mice record gets updated accordingly (your CS faculty advisor can do it). Make sure to keep all your approved documentations as it may be needed later.

In case you want to import a course for which there is no equivalent course at Columbia, you should first contact your faculty advisor (me) if it is appropriate to count. If it seems somewhat reasonable, you should contact the professor who has the closest association with the area for the course and have it be approved to count as a 4995 course. Typically, such a course will count towards your general tech elective. Again, once they approve it, make sure that your mice record gets updated accordingly and make sure to keep all your approved documentations as it may be needed later.

**NOTE:** Fill out [this form](#) for importing each course. (Signatures required on the form: "Department Representative" = Course Instructor, "Faculty Advisor" = me, "Advisor" = CSA Advisor, these must be signed in this order). Once everyone has signed, keep a copy for your records \*AND\* email it to [advising@cs](mailto:advising@cs) so that they can update your mice record.

Also take note that there is a maximum limit on how many courses can be imported, see below.

- **Is there a limit on how many courses taken at another school be imported and count towards my CS major?**

Yes, at most 12 credits (that is, at most 4 courses) are allowed to be imported from another school for the major. This includes transfer credits (if you are a transfer student) as well as study abroad credits. (typically AP/IB import credits are not counted towards this restriction.)

- **I can import 4 units of credit for a certain CS course, which is a 3 unit course here at Columbia. Am I allowed to import 3 units or 4 units?**

If there is an equivalent CS course at Columbia, you will only be allowed to count however many units the Columbia CS course has (almost always 3 units) and typically your additional units will go wasted. For example, if you import 4 units for a 3 unit Columbia CS course, then you will not be able to count the additional 1 unit towards your CS major requirements.

If the imported CS course has no Columbia CS equivalent, then also almost always only 3 units will be counted towards the major (usually towards general tech electives) and the additional fourth unit will go wasted.

## Graduation

- **Am I set to graduate on time? Can you check my courses for the XYZ track?**

Fill out the degree checklist in as much detail as possible (include the exact semester you took/planning to take the class) and make sure you specify if you got the advisor approval for all classes that say advisor approval needed (eg 4995/6998/etc classes). [SEAS BS in CS Degree Checklist](#)

- **I want to graduate early/late? What should I do?**

Fill out the degree checklist (see above) and let me know. Also reach out to (1) your CSA advisor, and (2) advising@cs so that we can start you off with the proper paperwork.

## **Grad School and Research**

- **I am thinking about graduate school (MS or PhD), how should I prepare?**

It goes without saying that graduate school is for furthering your education in a specific area of interest. This means you should think about what subfield(s) in Computer Science interests you. Apart from having a good academic standing, graduate programs look for some sort of academic project-work or research-work experience (this is especially important if you are thinking about doing a PhD).

- **I want to do research work, how should I proceed?**

Once you know what topics interest you, you should start taking advanced courses in the field to gain good background for doing research work. You should reach out to professor(s) whose research work interests you and attend the "research fair" that happens at the beginning of each semester (check out the emails sent by the department).

Occasionally some research projects would be available to students who have not yet taken relevant classes. Again, you can reach out to the professors and/or attend the research fair.

- **Which research credit course should I sign up for if I want to count it towards my major requirements?**

You should signup for either a 3998 or 4901 course in the appropriate department with the faculty of with whom you are doing research with. Please note that if the faculty is affiliated with the CS department you should take COMS 3998/4901 course. You should check with the faculty member you will work with (i) exactly which course number (3998 or 4901) you should take (typically the first semester you take 3998, and subsequent semesters 4901), (ii) if they are affiliated with the CS department, in which case please sign up for COMS 3998/4901.

Note that no more than six units of 3998/4901 courses can count towards your major (whether it is counted towards your track and/or general tech elective, and whether you take your research credits as a COMS course and/or as a non-COMS course)

Research courses can always count towards the general tech elective requirements. Occasionally (depending upon the research topic, research mentor, and your track) they can count towards your track requirements. In case you want to count



the research course towards your track requirements (instead of general tech elective), you need explicit approval from your faculty advisor (me), who will usually ask for additional details about the exact type of research work you did, etc. to ensure that your work is appropriate for your specified track. If you are counting your research credits for track requirements, you also need to make sure that sign up COMS 3998/4901 (ie, the research credits are from the CS department).

- **How many research course (3998/4901) credits can count towards my CS major?**

No more than six units of 3998/4901 courses can count towards your major. The research credit total comes from all 3998/4901 courses you took: whether it be for your track and/or general tech electives, and whether they were taken as a COMS course and/or as a non-COMS course.

- **Can I take the research course (3998/4901) for Pass/Fail option?**

If you want the course to count for any part of the major (track or general tech elective), then you need to take it for a letter grade.

## **Internship and CPT (applicable to international students only)**

- **What is the CPT approval procedure for doing an internship during the summer?**

To get approved for CPT by ISSO:

- You need to sign up for **one** unit of COMS 3999 (sec 062) Fieldwork course for the summer session you plan to do your internship. You must sign up for the course for a letter grade. Note that you cannot sign up for the course on ssol, you need to fill out a [RAF form](#) and have it signed by your advisor (ie me).
- You also need to fill out the [CPT form](#) and have it signed by your advisor (ie me).
- In order to have both forms signed, email me both your forms. Make sure to
  - fill out both the forms completely. (incomplete forms would be rejected)
  - include your offer letter on the company overhead signed by the appropriate hiring manager/HR indicating: (i) start and end dates for your internship, (ii) location of the internship work, (iii) detailed description of your work, and (iv) your compensation for the internship.

After you are done with your internship, in order to receive credit for the course:

- You need to ask your company supervisor to send an email to me briefly detailing the quality of work you did. Basically they should send me a short evaluation of your work.

- You need to email me a 5-10 page report detailing the work you did during your internship. In case you cannot discuss your internship work because of NDA, you should discuss what tools and technologies you learned during your internship.
- Both emails (supervisor evaluation and your report) should be sent within **two weeks** of completing your internship work or before the beginning of the subsequent Fall semester (whichever comes first), otherwise you will be assigned a grade of F.

Note that the one unit of course credit received **cannot** be counted towards any part of the requirements for your major. It can however be counted towards the 128 point requirement for your degree.

- **Will I be charged tuition in the summer for enrolling in the Fieldwork course (COMS 3999)?**

The registrar should waive your tuition fees for the summer COMS 3999 enrollment. In case this does not happen, simply contact your advisor (me) and they can take care of it. That being said, there may be some additional fees you may be charged for the summer enrollment, those charges cannot be waived.

- **I am planning to do an internship during the school year (instead of summer), what is the CPT approval procedure for that?**

You must follow the same steps listed above for a summer internship. Additionally, keep in mind that at most 3 units of fieldwork can be counted for your degree. That means CPT will be approved at max three times throughout your time as an undergrad. Also since you need to maintain full-time student status, there will be restrictions on the maximum number of hours you can work if you do an internship during the school year. You can check that with ISSO.