

Studying Abroad in Computer Science

Computer Science, Northwestern University
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This document is intended for any students who intend to study abroad and take CS classes while doing so, although especially for CS majors. Its goal is to outline policies and provide advice related to transferring credit for CS classes taken abroad as NU CS credit.

If you have additional questions, please reach out to the CS Study Abroad Advisors, currently Professor Ghena, at: study-abroad@cs.northwestern.edu

1 Overview

Big idea here: most of the time you either never need CS at all, or only need us to sign off on petitions. If you want to take a new course we haven't previously reviewed, that has a whole process to it. There are three normal cases:

1. **If you don't want to take CS courses while abroad:** you don't need to get CS involved at all, even if you're a CS major. CS never needs to sign off on anything.
2. **If you want to take already approved CS courses while abroad:** you're also good! At some point, you'll need us to sign off on a petition to approve them. This happens before departing for McCormick students, or after returning for Weinberg students. Email us and we'll happily sign off on any already-approved courses. The list of previously-reviewed courses is at: <https://cs-nu.github.io/nu-cs-study-abroad/>
3. **If you want to take an unreviewed CS course while abroad:** we'll have to review the course **before you depart**. This applies to both McCormick and Weinberg students. The deadline for requesting new course reviews is **January 12th, 2024**.

Check out additional McCormick or Weinberg requirements here:

- McCormick: www.northwestern.edu/abroad/study-abroad/academic-planning/major-specific/mccormick.html
- Weinberg: www.northwestern.edu/abroad/study-abroad/academic-planning/major-specific/weinberg.html

2 Requesting Course Reviews

To request CS reviews a study abroad course, submit information here:

<https://forms.gle/4CgMU5PpNH5urcAu9>

You may submit up to **6 course review requests**. You'll probably only need one or two if you're going to an institution that many other students have gone to before. Make sure to check out the list of already-reviewed courses at <https://cs-nu.github.io/nu-cs-study-abroad/> For students who are going to an institution which has no previously-reviewed courses, we recommend submitting more requests so you have more potential options of courses to take.

You must submit any requests before the deadline of **January 12th, 2024**. That applies to both Fall study abroad or for whole-year study abroad starting in the fall. For students interested in the less common option of studying abroad in the Winter/Spring, please get in touch separately.

Your request should include any relevant information that helps us understand the goals and implementation of the course. This includes at the very least the course title, description, and syllabus. Also valuable would be the schedule, course website, and assignment details. Sometimes these will be publicly available, but you may need to contact individual instructors to get them in some cases. If we do not have enough information to adequately review the course, we will not be able to approve it and we'll let you know.

CS credit for classes taken abroad is not guaranteed. Different institutions emphasize different aspects of computer science in their curricula, and many have different standards for their courses. You will receive CS credit only for classes that:

1. We consider to be as rigorous and thorough as our own courses, and
2. Emphasize the aspects of each subject that our faculty consider important in our own courses (*e.g.*, implementation for systems courses, proofs for theory courses, etc.).

If we do not approve a course for CS transfer credit, you are still welcome to take it while abroad, but you will not receive computer science credit for them when you return to Northwestern.

Generally, you're unlikely to receive credit for courses that:

- Are really IT courses: *e.g.*, how to configure a CISCO router, how to be a Linux sysadmin, etc.
- Are really about some narrow and/or proprietary API: *e.g.*, how to use some JavaScript API
- Are focused on teaching you to pass a technical certification exam: *e.g.*, how to be a certified Amazon AWS Specialist

- Are about using software rather than writing it: *e.g.*, how to use Photoshop, audio composition software, or a game course that's largely about how to use the Unity editor
- Have a substantial component that would be considered 200-level CS: *e.g.*, a data mining course that starts off by teaching students basic Python or R

3 Timeline

The following timeline applies to students interested in studying abroad in Summer, Fall, or for the entire academic year. (For students interested in the less common options of studying abroad in Winter or Spring, please get in touch.)

Fall: Think about where you would like to study, start thinking about the classes you would want to take.

January 12th, 2024: Internal CS Deadline. If you would like to have classes you take abroad count for CS credit that have not been previously reviewed, submit them to the CS study abroad advisors.

Late January: The CS study abroad advisors, in consultation with course coordinators, approve or reject the courses on your list. We will work with you during this process if need be.

Early February: NU Study Abroad Deadline. Submit your application via the NU Global Learning Office web site. Pay careful attention to their specific deadlines! www.northwestern.edu/abroad/study-abroad/apply

4 Frequently Asked Questions

When is the best time in my degree to study abroad?

If you are intending to take CS courses abroad, we recommend you complete our intro sequence (111, 150, 211, 212, 213, 214) before going abroad. That will open up a wide variety of courses at most institutions, and give you the most courses to choose from while abroad.

We also recommend against going abroad your senior year if you have a lot of degree requirements left to fulfill. Trying to cram all of them into your last two quarters at Northwestern after you come back is risky. This is especially true for breadth requirements, which may be difficult to satisfy abroad.

What are the best places to study CS abroad?

That's a very personal question! You should choose a location that's going to work well for you. If you need some CS credit from the place you're going, you can use the list of already-reviewed courses to help you see which institutions have more approved courses and therefore are likely to work for you.

What are the best kinds of CS classes to take abroad?

Based on our observations, theory and human-computer interaction (HCI) classes tend to be fairly uniform worldwide. So sufficiently rigorous classes in these areas are likely to be close to our own, which means they are more likely to be worth NU CS credit. In contrast, there are wide variations in systems and AI classes across the globe. Different institutions teach systems/AI very differently, and we do not give NU CS credit for classes that differ too drastically from our own. That's pretty general though, and we've certainly approved all types of courses at different institutions.

How many CS courses should I take abroad?

To start, zero is actually a totally okay number! But if you need CS credit, we recommend students limit themselves to only one or two CS courses while abroad. You can sit in front of your computer programming all day long and it won't feel all that different no matter whether you're in Evanston, Rome, or Seoul. Make sure to give yourself time to explore the place you're living in and experience the local culture.

Do these policies and guidelines also apply to Weinberg students?

Yes. These apply to all students seeking CS credit, regardless of school and program.

I'm applying to a program with an early deadline. What do I need to do?

If you're applying to a program with an early deadline, please get in touch as soon as you can. You may need to send us course information earlier than normal to get transfer credit approvals on time.

5 Further Information

The NU Global Learning Office web site has tons of useful information:

www.northwestern.edu/abroad/study-abroad/get-started

For any questions, please email: study-abroad@cs.northwestern.edu

6 Acknowledgments

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