

## FAQ - ND BACS Program - Spring 2024

**Updated:** 01/06/2024

This FAQ is for students applying to join the BACS program in Spring 2024 (Class of 2027). Please note that the guidelines may change for subsequent years.

### **Q: Where is the application?**

The application in Spring 2024 for the Class of 2027 can be found at:

<https://forms.gle/ipYTTb2NYQxKKFbN6>

### **Q: Which college offers the BACS degree program?**

This degree program is in the College of Arts & Letters and includes satisfying the [core requirements in Arts & Letters](#) and [foundational coursework in Computer Science](#).

### **Q: When do I apply?**

You must either apply in the spring of your first year or be admitted as a BACS student (and select BACS as your primary major).

If you have been admitted as a BACS student and have kept the BACS as your primary major, you do not need to apply to join the program.

### **Q: When are applications due?**

Applications are due on Friday, March 8th, 2024 at 10 PM EST which is the Friday before spring break.

Applications may be submitted through mid-April after which no new applications will be reviewed. Priority will be given to applications received by the initial deadline.

### **Q: When will results be known?**

Decisions will be conveyed after spring break to allow for appropriate advising time prior to registration for the fall semester.

**Q: Should I meet with my adviser prior to applying?**

Yes! We strongly encourage meeting with your First Year Adviser and as appropriate reaching out to the BACS Program Director, Prof. Aaron Striegel via the program e-mail address at [bacs@nd.edu](mailto:bacs@nd.edu).

**Q: How many students will be admitted in this cohort?**

We expect to admit 10 to 15 students to this cohort (Class of 2027). That number may fluctuate up and down as the number of students in the CSE majors (BSCS, BSCPEG) finalize.

**Q: Do I have to be a current first year student to apply?**

Yes

We do allow existing BSCS or BSCPEG students to transfer in the fall of their sophomore year if they: (1) Are students in good standing (> 3.0 cumulative GPA); (2) Have identified a cognate; (3) Have a viable path to graduation; and (4) Are doing well in Discrete Math and / or Fundamentals of Computing in the fall of their sophomore year.

**Q: Can I re-apply next year as a sophomore (rising junior)?**

No -- due to space limitations and course prerequisite constraints, you must enter the program by the start of the sophomore year (see prior question for current BSCS / BSCPEG students)

**Q: Can I be in the gateway (HCC-ND) program?**

Yes, gateway students are eligible.

**Q: Do I have to be in Arts & Letters now to be considered?**

No, this degree program is open to all first year students. The degree is offered by the College of Arts & Letters and your degree will be granted by that College.

You should make sure that you are on track with respect to math (Calc I, Calc II, Calc III) and are taking a programming course in the spring.

**Q: What is a cognate area?**

A cognate area of study is 15 or more credit hours that comprises a coherent and focused set of courses. Courses in the cognate area must embody an area of knowledge outside of the computing disciplines. Students will be encouraged to explore the places of intellectual contact between the approved cognate area and Computer Science

The selected cognate area and its courses are approved by the BACS Program Director or designee in consultation with the relevant department(s) and their advising deans using criteria intended to ensure depth of study in the cognate area. Once admitted, students may also submit their own slate of courses for approval.

Only coursework that originates in Arts & Letters may count for the cognate.

The cognate requirement may potentially be satisfied by an approved [minor](#). An approved [supplementary major](#) or [second major](#) may fulfill this requirement, as would an approved set of courses proposed by the student with adequate justification. Note that cross-college or supplementary minors or majors will likely not fully satisfy the cognate requirements (e.g. Math, Business Entrepreneurship). Students electing to pursue those supplementary majors or minors will need to identify additional courses in Arts & Letters to satisfy the cognate requirements.

Further, because of the overlap in content, the minors in Computing and Digital Technology (CDT) or Data Science may not be used to fulfill the cognate requirement nor may courses from CDT be used either.

**Q: Do I have to know today what courses I want to take as part of my cognate?**

No, that is part of the advising process once you are admitted. You should be able to reasonably articulate your cognate in the application process.

Note that cognates focused on areas where there is an existing minor will be expected to use the minor to satisfy the cognate (e.g. foreign language).

**Q: Do I have to pick only one Cognate / Area of Interest on my application?**

No, you may indicate several areas of interest. But the courses chosen to fulfill the cognate requirement must represent a coherent area of interest that is explored in some depth through your coursework.

**Q: What if I don't know exactly what Cognate or Areas of Interest that I want to pursue?**

You should consult as early as possible with your first-year adviser or the BACS Program Director to help identify areas of interest. An ideal application to the BACS program will state clearly how the BACS program allows you to pursue your academic and / or career goals and how the cognate relates to those goals.

**Q. Can I combine the BACS with a degree in another College through the dual degree program?**

Because of program size limitations, the BACS program is not eligible for inclusion in a dual degree program (e.g. Reilly Program).

**Q: What if I am currently intending to join the Computer Science program (BSCS) in the College of Engineering? Can I still apply for the BACS?**

Yes, ideally you would do this as a first year student.

Students who are currently a BSCS or BSCPEG are the only ones eligible to join the BACS program during the fall of their sophomore year. See earlier for the criterion.

**Q: Can I apply if I am a transfer student?**

No

**Q: Can this be part of a double major?**

The BACS program is structured to allow for the potential for a double major within Arts & Letters or to enable an Arts & Letters minor. Note that certain Arts & Letters majors may require having significant amounts of AP credit and / or a willingness to take summer classes to successfully complete the double major.

It is important to note that any second major **must** be within the College of Arts & Letters. For example, it is not possible to do the BACS together with Finance from the College of Business. No exceptions will be granted.

It is also important to note that if you wish to pursue a supplementary major or minor as listed on the College of Arts & Letters website, many of the supplementary options will not entirely satisfy the cognate requirement. Students should carefully consider the viability of electing to do a supplementary major together with the BACS. Some of the supplementary minors do have significant coursework within Arts & Letters making them a more viable option.

**Q: Will there be a wait list?**

Yes, we will notify all applicants in mid to late March as to their status and if appropriate, their relative position on the wait list.

**Q: Is a senior thesis required?**

No, but it is recommended. Ideally, the senior thesis should represent work at the interface between computer science and the cognate area.

**Q: What is the Arts & Letters core?**

Students in the BACS program will be expected to satisfy the Arts & Letters core which can be found [here](#) including the [foreign language requirement](#).

**Q: What are the math requirements for the degree?**

Students will be required to take Math 10550: Calculus I, Math 10560: Calculus II, CSE 20110: Discrete Mathematics, and six credits of coursework from the following list: Math 20550 (Calculus III), Math 20610 (Linear Algebra), Math 20580 (Linear Algebra with Differential Equations), ACMS 30440 (Probability and Statistics), ACMS 20530 (Introduction to Probability).

Petitions to accept other Math or ACMS courses for this requirement will be considered, but introductory mathematics courses will generally not be approved. Restrictions (e.g., credit cannot be granted for both Math 20610 and Math 20580) will apply.

**Q: What if I took Calc A / B instead of Calc I / II?**

You will work with your adviser and the BACS Program Director to determine the appropriate coursework to take. Most likely, you would need to take Calc II in order to satisfy the prerequisites for the six credits of additional math coursework.

Provided that you did well in Calc A, it is generally possible to take Calc II directly after Calc A in consultation with the Director of Undergraduate Studies (DUGS) for Mathematics.

**Q: What if I am taking Elements of Calculus?**

You would work with your adviser and the BACS Program Director to determine the appropriate coursework to take.

**Q: Do I need to have prior programming experience?**

Not necessarily, but prior programming experience can be helpful in the program. Programming experience will be required prior to taking Fundamentals of Computing (CSE 20311) in the fall semester upon entering the BACS program. The Program Director will work with you to determine the best course of action.

For current Arts & Letters students, we recommend taking Elements of Computing (CSE 10101) if there is space available. Requests to take the class should be directed to Prof. Behrens, the CDT program director.

Alternatively, students may take EG 10118 (Introduction to Engineering via Python) in consultation with the lead instructor Dr. Andrew Bartolini and the BACS Program Director.

Note that priority will be given in terms of applications for those who are either taking one of the listed classes or have significant high school programming experience and are on track with respect to the Math requirements for the degree.

**Q: Can I take Fundamentals of Computing in the spring?**

If there is space in the course and you have extensive prior programming experience, you may join the wait list for the course. Note that priority for Fundamentals of Computing is given to CSE students. Please reach out to the BACS Program Director for advice.

**Q: How will you evaluate students for admission to the BACS program?**

Your essay or short video, course performance from the fall semester, and your desired areas of interest will help inform the committee making admission decisions. The key aspect of distinction is articulating why the BACS program is essential towards achieving your career and academic goals.

**Q: Should I do a BACS or BSCS?**

Please refer to this [comparison chart](#) that can also be found on the Arts & Letters technology website.

**Q: Will doing the BACS restrict the type of jobs that I would be able to pursue?**

No. Students in the BACS program will have a rigorous foundation in Computer Science informed by in-depth study in a cognate of their design. Students should discuss their career goals with their adviser.

**Q: The application mentions that a short video may be submitted as an option for the application. What does that entail?**

The short video should be less than 5 minutes (ideally 2-3 minutes) that includes a bit about yourself and why the BACS is the right fit. Creativity is encouraged with the short video. The criterion for evaluation are the same as the essay.

**Q: Do I need to get my official transcript? How do I do that?**

No, you do not need your official transcript. You may simply go to GPS and print a PDF. The document should contain / list the course taken and the grades that you received in the fall semester.

**Q: I only found out about the BACS now (late spring, summer, fall), can I still apply?**

No. Given the limited space constraints, we accept applications only through the end of April and give priority to those who applied by the initial deadline.

There are no exceptions to the application process.

For those students who missed the deadline, there are also the CDT and Data Science minors.