

Post-Baccalaureate Applied Computer Science Student Manual

Last Updated: March 16, 2020

Welcome to PostBacc Applied Computer Science!

Welcome to the PostBacc Applied Computer Science program. We are excited that you are joining us. The following student manual provides students with the needed information regarding program policies and procedures to get started in the program and to understand what is required to graduate from the program. If you have any questions regarding any information in the manual or any suggestions please contact either your Academic Advisor, Tara Gee, or Program Administrator, Vanessa Luna. From the faculty and staff of the Post-Bacc Applied Computer Science program, we hope you have a wonderful semester!

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Contacts

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Academic Advisor: Tara Gee - tara.gee@colorado.edu

Program Overview

Students are required to complete 45 credit hours of computer science courses in order to graduate and earn a Bachelor of Science in Applied Computer Science from the University of Colorado, Boulder. The 45 credit hours consist of 26 credit hours of required courses and 19 credit hours of elective courses as indicated below.

Curriculum: Required and Elective Classes

Part 1: Required Courses (26 credit hours)

- CSPB 1300 (4) Computer Science 1: Starting Computing (or equivalent) *
- CSPB 2270 (4) Computer Science 2: Data Structures
 - Requires prerequisite course of CSPB 1300 (*minimum grade of C-*)
- CSPB 2400 (4) Computer Systems
 - Requires prerequisite course of CSPB 2824 (*minimum grade C-*) and prerequisite or corequisite course of CSPB 2270 (*minimum grade of C-*).
- CSPB 2824 (3) Discrete Structures
 - Requires prerequisite or corequisite course of CSPB 1300 (minimum grade C-).
- CSPB 3104 (4) Algorithms
 - Requires prerequisite course CSPB 2824 (minimum grade C-) and prerequisite or corequisite course of CSPB 2270 (minimum grade C-).
- CSPB 3155 (4) Principles of Programming Languages
 - o Requires prerequisite courses of CSPB 2270 & CSPB 2824 (all minimum grade C-).
- CSPB 3308 (3) Software Development Methods and Tools
 - Requires prerequisite or corequisite course of CSPB 2270 (minimum grade C-).

Part 2: Elective Courses (19 credit hours)

Additionally, students must complete a total of **19 credit hours** of elective courses as listed below. Additional courses will be added in the future.

- CSPB 3022 (3) Introduction to Data Science Algorithms
 - Requires prerequisite or corequisite course of CSPB 1300 (*minimum grade C-*).
- CSPB 3287 (3) Design and Analysis of Data Systems
 - Requires prerequisite or corequisite course of CSPB 3104 (minimum grade C-).
- CSPB 3702 (3) Cognitive Science

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- Requires prerequisite or corequisite course of CSPB 1300(*minimum grade C-*).
- CSPB 3753 (4) Design and Analysis of Operating Systems
 - Requires prerequisite course of CSPB 2270 & CSPB 2400 (minimum grade C-).
- CSPB 4122 (4) Information Visualization

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^{*}Number of credit hours is indicated in parentheses ().

- Requires prerequisite course of CSPB 1300 & CSPB 2824 (*minimum grade C-*).
- CSPB 4253 (3) Datacenter Scale Computing Methods, Systems and Techniques
 - o Requires completed prerequisite of CSPB 2270, 2400 & 3753 (minimum grade C-).
- CSPB 4502 (3) Data Mining
 - Requires prerequisite course of CSPB 2270 (*minimum grade C-*).

Class Registration, Residency Requirements, Transfer Credits and Continuous Enrollment

Class Registration

In order for students to receive credit for the classes in this program, students must ensure that they registered in the proper online sections of the classes (*section 001*) and must choose <u>letter grade</u> as the grading option for their classes.

Residency Requirements

Students are required to complete 45 credit hours of computer science courses in order to graduate. The residency requirement for the program is of the 45 credit hours, 30 credit hours must be taken from courses in the program (online courses) while the student is matriculated in the program as an Applied Computer Science student.

Transfer Credits

Students who have taken on-campus computer science courses at CU-Boulder through Continuing Education can receive credit for a maximum of 15 credit hours before matriculating into the program.

Students who have taken computer science courses from other universities can transfer a maximum of 9 credit hours to the program assuming that the courses are equivalent to the courses in the program. *These possible transfer credits will only be considered at the point of admission.*

This is also dependent on how far in advance of admissions you submit your official transcripts for review. If ample time is given prior to your admissions deadline, this will allow the Transfer Credit Team a chance to review any not obviously transferable credit. If your submissions of transcripts is late (e.g. within 2 weeks of term starting), it is unlikely that the team will have adequate time to review your transcripts in time. **Transfer credits cannot be added at a later time in the program.**

If you feel you should have received transfer credit for a course that was taken within the last 10 years and did not receive it, you can verify the transfer equivalency by emailing TCHelp@colorado.edu. Courses that have been taken over 10 years ago may not be transferred to the program. These courses are evaluated on a case-by-case basis and are determined by the CU-Boulder Computer Science department.

Continuous Enrollment

Students who are enrolled in the program but do not register for classes for three consecutive semesters will need to reapply to the program. If a student plans to take a semester or two off before enrolling in classes

^{*}Number of credit hours is indicated in parentheses ().

again, that student should notify their Academic Advisor to let them know they are taking a semester off and when they plan to return.

Minor and Course Registration Policy

It is the policy of the College of Engineering and Applied Science that students enrolled in the Post-Baccalaureate Applied Computer Science degree program may not earn minors and <u>cannot</u> register for on-campus courses at this time. Please note: Students who attempt to register for on-campus, <u>will be dropped from those courses</u> by the Academic Advisor.

Graduation Requirements

The graduation requirements for the PostBacc Applied Computer Science program are as follows:

- Students must receive an overall GPA in the program of 2.25
- Students cannot receive a grade lower than C- in any class in the program.
 - Note: If no grade higher than C- is achieved in all classes, this will not result in the minimum GPA required to graduate.
- Students who receive a grade below C- in class must retake that class.
- Once matriculated into the program, students are required to register for the online Applied Computer Science section 001 classes and must have chosen the letter grade option in order to receive credit for those classes.

Program Policies

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The following section outlines the operational policies for the Applied Computer program.

Academic Calendar and Holidays

The PostBacc Applied Computer Science program will be following <u>CU-Boulder Academic Calendar</u>. The CU-Boulder Academic Calendar will provide students with information regarding important academic deadlines such as class registration dates, class drop deadlines, and tuition and fee payment deadlines. It will also provide information regarding holidays and university closures such as Thanksgiving, spring break and Martin Luther King Jr. Holiday.

Assignments for all classes in the program will not be due on weekends, during holiday breaks or on dates on which the university will be closed. Please note that faculty and staff of the program will not be working on weekends and on dates in which the university is closed. Access to class content is available 24 hours a day except during scheduled maintenance days which will be communicated to students ahead of time.

Program Communications, Platforms, & Behavior

Email

The program faculty and staff will be using CU-Boulder email accounts as the official email for communicating with students. Please ensure that you set-up your CU-Boulder email account and check it regularly.

OUR EMAIL TO YOU

Your CU email account is the official university method of communication. Enable settings in your account to ensure you see and read all email. You are held responsible for the content in our emails to you whether you read them or not. This includes class correspondence from any platform used in our program. Set aside a time each day to read your email.

YOUR EMAIL TO US AND YOUR CLASSMATES

Communications from students regarding class management issues (*i.e.* discussion of a family emergency situation which can affect your performance in your class, questions about the grades you received on an assignment, etc.) should be emailed directly to your instructor. Students can expect a response within 24-48 business hours to these types of questions.

Your email conduct and behavior is expected to be professional and courteous. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are expected the same as you would maintain in a work environment. Some good things to do and questions to ask yourself before emailing classmates, staff or faculty are -

- "Would I say this if this was an in-person discussion?"
- "Would I say this to a work colleague?"
- Think and reread
- Leave as draft until morning, and reread.

For more information, see the policies in the Student Code of Conduct for further detail.

Piazza

Piazza is a virtual classroom and an official platform for our program. Course content questions should be directed to the Piazza discussion board where questions will be answered by peers and be moderated by the class instructor. It is a place to ask questions, discuss learning strategies, explore related topics, support your classmates, and contribute to the class. Like a classroom blackboard, all students must read and follow the instructor posts for course and content information, and announcements. This helps you learn from each other, build community, and learn by teaching others.

How to use Piazza - See your class syllabus for details, in general...

- It is used for participation grading see your class syllabus for details.
- It is a place to practice professional collaboration strategies.
- Instructors may not reply to all inquiries and let other students answer.
- Many instructors will use Piazza as a reference in the future for a letter of recommendation.

WHAT PIAZZA IS NOT...

- A 24 hour helpdesk or answer forum.
- A place for others to completely debug your code.

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Office Hours & Zoom

Faculty will be holding online office hours which will consist of 2 hours per week per class. These office hours may be conducted via Zoom meetings. It is much like a classroom. It is a place to ask questions, explore further, discuss strategies, explore related topics and support your classmates and contribute to the class. *Office hours are optional.*

How to use Zoom

- Discuss class content directly with the instructor and other students.
- Practice professional collaboration strategies.
- Instructors may use break out groups or/and guide discussions, at their discretion.
- Instructors decide which topics will be discussed based on what will optimize learning.
- Please wear clothes and be aware of your environment.

WHAT ZOOM OFFICE HOURS IS NOT

- Answer forum.
- Private tutoring session.
- Instructors cannot help you completely debug your code.
- Instructors may not reply to all inquiries and let other students speak as appropriate.

Examples of Appropriate and Inappropriate Uses of Zoom and Piazza

ANY POST THAT INTERFERES WITH FELLOW STUDENT LEARNING OR UNIVERSITY ACTIVITIES IS NOT ACCEPTABLE.

Any posts or behavior, regardless of intent, that could cause abuse, obstruction, disruption, or interference with student learning, including posts that are disrespectful, aggressive, distracting, off-topic or inappropriate, will not be tolerated. If in zoom, this behavior may result in being muted. If in Piazza, comments will be saved and deleted at the discretion of the course instructor. Such comments and/or behavior will be reported to Student Conduct & Conflict Resolution. Please note that there are many ways a post can interfere with student learning. If you have doubts about your message, please edit. For example, sarcasm doesn't translate well into text and could be a problem. Additionally, calling out specific students' performance or telling others how to do/work around a problem (ie: Hardcoding or providing links to answers) and will not be allowed. Also, dominating group discussions can inhibit others' opportunities to learn and will not be allowed.

Posts and questions about classwork should be content specific and reflect effort on student's behalf. **Inappropriate:** Sample questions that are not content specific and hence not appropriate:

- Please tell me how to do #6
- Explain #6

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• I'm lost on #6, Help!

Appropriate: Sample questions that are content specific:

- I applied the technique from the video to #6, but I get an answer that is too large, could my loop be incorrect?
- In the video lecture, I understand the algebra steps in #6, but why is 0! =1?
- Is anyone else getting different answers to #6? It seems to depend on which method I use. (notice the student is not posting the solution)

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INDIVIDUAL CHECK IN

Students are able to request an **Individual Check-In** to communicate and clarify topics or concerns with the instructor that may have been misunderstood in email or Piazza conversations. While *email communication* should be the first resource for answering questions, an **Individual Check-In** is a tool to resolve issues or misunderstanding directly with the instructor before they escalate. The goal of an **Individual Check-In**, an informal ZOOM meeting, would be to provide the opportunity for instructors and students to resolve matters in a live person-to-person environment. An **Individual Check In** may be used for:

- An exam or homework grade issue.
- A discussion about class performance and whether the class is a good fit.
- Specific student situations that may be affecting their work and whether or not accommodations can be made
- Clarifications of policies and expectations.
- Clarifications of previous email exchanges.

24 hours after the **Individual Check-In**, the instructor must email the student summarizing the conversations.

Proctorio

Proctorio and exam requirements are posted in each course at the top of Moodle. Non-compliance with Proctorio, exam or course instructions may result in a voided exam (score = 0) or an honor code violation. You are required to understand the conditions allowed for each exam. Ask your instructor if you are unsure about requirements.

Slack

Slack is our unofficial communication channel. You are not required to participate in it or join. If you choose to join and participate in Slack, you are expected to abide by the Slack Etiquette policies that are pinned and posted within the #slack_ettiquette channel.

Program Behavior

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Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Netiquette, or internet etiquette, are guidelines for professional communication in an online environment and in email exchanges. Netiquette policies for the Applied Computer science program include:

- Treat students, faculty and staff with kindness, politeness, and respect whether in an online discussion
 post, group work, in emails or in Zoom meetings. Maintain the same standards that you would if you
 were talking to that person face-to-face.
- Do not use ALL CAPS when posting as this is considered, "Shouting". Remember that we are all here to learn so do not respond to another student in a highly critical, sarcastic, or ridiculing manner.
- Faculty and staff reserve the right to remove posts that do not meet the netiquette guidelines.

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Class rosters are provided to the

instructor with the student's legal name. We will gladly honor your request to address you by an alternate name or gender pronoun. Please advise us of this preference early in the semester so that we may make appropriate changes to our records. For more information, see the policies on classroom behavior and the Student Code of Conduct.

Discrimination and Harassment

The University of Colorado Boulder (CU Boulder) is committed to maintaining a positive learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, discrimination, harassment or related retaliation against or by any employee or student. CU's Sexual Misconduct Policy prohibits sexual assault, sexual exploitation, sexual harassment, intimate partner abuse (dating or domestic violence), stalking or related retaliation. This includes any of these behaviors exhibited in an online environment. CU Boulder's Discrimination and Harassment Policy prohibits discrimination, harassment or related retaliation based on race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the OIEC website.

Religious Observances

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams. If this applies to you, please contact your professor directly as soon as possible at the beginning of the term. See the campus policy regarding religious observances for full details.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the academic integrity policy. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, resubmission, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273) where they will review and discuss with all parties involved. Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code Council as well as academic sanctions from the faculty member. Additional information regarding the academic integrity policy can be found at the Honor Code Office website.

Getting Started

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The following section will help students determine what computer hardware and software are needed for the program and how to access the Applied Computer Science Moodle site.

Computer and Software Requirements

Minimum Computer Requirements

Students will need a computer that is sufficient to be able to run the necessary software for the program and be able to access the course content. Student computers should conform to the recommended minimum computer standards.

Students will need a webcam that can meet the minimum requirements for the Proctor.io program that will be used for proctoring quizzes and exams. The minimum webcam resolution is 320x240 VGA resolution. We recommend the "Logitech HD Pro Webcam C920, Widescreen Video Calling and Recording, 1080p Camera, Desktop or Laptop Webcam" which meets the minimum requirements and is reasonably priced.

For screen resolution we recommend a minimum of 1920 x 1080.

Software Requirements

Our programs and platforms run best on Chrome.

Accessing Your Classes on Moodle

The program classes are accessed through the Applied Computer Science Moodle site. Moodle is a Learning Management System where we house the courses, similar to Blackboard, Canvas or D2L. Students will need their Identikey and password to be able to access the classes.

Access to the program Moodle site will be available for students starting sometime during the week prior to classes starting each term in order to access the Orientation & Course Resources course to become familiar with the Moodle environment. Students will be able to access their course material on moodle through the end of final exams each term.

To access the Moodle site:

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- 1. Go to the Applied Computer Science Moodle site: https://applied.cs.colorado.edu
- 2. Click the LogIn link on the top right hand side of the website
- 3. Use your Colorado.edu Gmail account to login
- 4. A validation email will be sent to your CU-Boulder account to confirm your email address. Please click on the link in that email
- 5. The opening page will be your Moodle Dashboard. Please click on the Site Home link in the left hand side menu. This will bring you to the list of classes which you are registered in.
- 6. Please access the Welcome & Course Resources course first.
 - This Welcome & Course Resources Moodle course shell will be used as our Applied Computer Science tutorial resource center for how to use Moodle, how to use the Anaconda Programming Environment, and any other future tutorials that will be needed for our classes. It will also be used as our Hang Out Hub, a location where all students in the program will be able to interact and where program announcements will be posted. So please drop-in regularly.

If you have any technical problems with the Moodle course site please email your instructor.

Grading Expectations and Homework Policy

Each instructor will have their own grading and homework policies. It is your responsibility to be familiar with your instructors policy. You will find these in your course syllabi.

Course and Instructor Feedback

Every term, students are given the opportunity to evaluate each of their courses and instructors using a questionnaire called the Faculty Course Questionnaire (FCQ). The FCQ program is managed within the Office of Data Analytics at CU Boulder.

Campus Services Available & Departments for Additional Support

Academic Calendar

We follow the CU Boulder Academic calendar. This is where you will find all critical dates, deadlines and holidays. These apply to you and our program. Please be familiar and bookmark the page so you can easily reference. Academic Calendar Site

Academic Coaching

Academic Coaching in the College of Engineering and Applied Science is intended to help students develop their strengths and determine what it takes to be a successful student at CU Boulder. Academic Coaches are dedicated to supporting the academic, personal, and career success of students in CEAS. This free service includes a series of individual meetings with a professional staff member to help students reach their goals. Coaching sessions provide students an opportunity to talk about both academic and non-academic topics. Appointments are available via Zoom. Academic Coaching Site

BuffOne Card

Your Buff OneCard serves as your student identification. You are not required to get this but Student discounts can be handy. Directions on how to get your Buff One card can be found on their website. They will mail it to you for a \$5 shipping fee. Buff One Student ID

Bursar's Office

Everything you need to know about costs, understanding your bill, making payments and getting refunds is right here. <u>Bursar's Office Site</u>

Career Services

We encourage our PostBacc students to start a relationship with Career Services early on. There is much you can do towards developing a career plan throughout your program experience. Building a relationship with Career Services can help you prepare for your future career goals. You can start by working to craft a solid resume, learn to network and practice your networking skills before applying for internships or jobs. They are

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willing and able to meet with our students via web conferencing. You can find more information about all the services they can provide at their website. <u>Career Services</u>

Disability Services

If you qualify for and would like to receive accommodations because of a disability, you will need to work with Disability Services before classes begin. Disability Services determines accommodations based on documented disabilities in the academic environment. Once they have determined you are eligible to receive accommodations, they will provide you with an accommodation letter that you can then share with your faculty member.

As this process takes time, it will need to be started well in advance of when accommodations will be needed. Information on requesting accommodations is located on the Disability Services Website. Please contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance.

If you have a temporary medical condition or injury, see Temporary Medical Conditions under the Students tab on the Disability Services website and discuss your needs with your professor.

Financial Aid

The Office of Financial Aid has all the info specific for you regarding receiving all types of financial assistance while you are a student. Financial Aid Site

Library Access

The University Libraries at CU Boulder maintain a vast collection of academic resources and provide engaging learning experiences and seamless services that empower people to discover and integrate reliable information in new ways. Explore all the Libraries offer including online research help. <u>CU Boulder Library</u>

Office of Institutional Equity and Compliance

The Office of Institutional Equity and Compliance (OIEC) employs a comprehensive and integrated approach for case resolution, education, assessment, support services, and ADA accommodations to create and foster a safe, inclusive, and accessible campus environment for all members of the CU community.

OIEC implements and enforces three university policies for students, staff, faculty, volunteers, and affiliates: Discrimination and Harassment; Sexual Misconduct, Intimate Partner Abuse and Stalking; and Conflict of Interest in Cases of Amorous Relationships.

OIEC is committed to preventing and eliminating discrimination and harassment based on race, color, national origin, pregnancy, sex, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran (military service) status, political affiliation, or political philosophy. Office of OIEC Site

Registrar's Office

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The Office of the Registrar is proud to serve the students, faculty, staff and alumni of the University of Colorado Boulder through registration, record keeping, course and classroom management, and academic support.

They also facilitate <u>dropping courses</u>, <u>withdrawing from courses</u>, <u>grade replacement procedure</u>, etc. <u>Registrar's Office Site</u>

Student Conduct and Conflict Resolution

The Student Code of Conduct is meant to provide students with individualized responses to support community standards and conflict resolution that emphasize accountability and growth by fostering reflection on the impact of their behaviors, promoting harm repair and responsible community membership and cultivating the wellbeing and safety of the University of Colorado (CU) Boulder community. Student Conduct and Conflict Resolution Site

SilverCloud

SilverCloud Health, CU's online program to support your emotional health and well-being. SilverCloud is a confidential online portal that offers secure, immediate access to online programs for stress, anxiety and depression. Each module offers information, tips and interactive activities to better understand one's emotional well-being. Available for free to all CU Boulder students, grad students, staff and faculty. SilverCloud Site

Veteran Services

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The CU Boulder Veteran and Military Affairs (VMA) is a one-stop shop for all programs, policies, pay, information and support for prospective and current student veterans and veteran dependents. You can find more information at their website. Veteran and Military Affairs