ASSIGNMENT INSTRUCTIONS

1. Assignment Advising: **25 points w/ 0 E.C. points.**
2. Due Date & Time: **10-09-2024 at 11:55 PM**

!PERFORMANCE TRACKER		
ASSIGNMENT	**GRADE**	**YOUR GRADE**
ADVISING	25	
TOTAL	25	

A: 90-100% **B**: 80-89% **C**: 70-79% **D**: 60-69% **F**: 0-60%
The course grader provides feedback to your assignments on Canvas.

WHAT TO SUBMIT

1. Assignment in Excel **xlsx** format

HOW TO SUBMIT AND THE RULES TO FOLLOW

- **Please read and follow Dr. Bill Hsu/the CS Department's guidelines**.
- The Course Policy on Student Conduct and Academic Honesty
- The assignment instructions and rubric for this assignment
- The additional instructions provided in class and on Canvas.
- Submit via Canvas, the Assignment Submission section.

ABOUT

- Our advisor Dr. Bill Hsu manages this assignment:
  - He created the assignment.
  - He is answering questions regarding this assignment.
  - Your DL will grade this assignment with Dr. Hsu's help.

- Assignment Advising's Discussions Forum
  - Location: Course's Canvas/Discussions/Assignment Advising Discussions

- The assignment instructions and rubric for this assignment are on the 2nd page to the last page of this document.

- All documents you'll need are in
  https://sfsu.box.com/s/rm1g800hy8jyjj1l8e7knk0u9qfucgqw

- Dr. Hsu provided us with an *Academic Plan* Excel spreadsheet which serves as a tool that helps us with a part of this assignment.
  - We call this tool the planner: "AcademicPlanFall2024.xlsx"
  - Please also see: "AcademicPlanExampleFall2024.xlsx"
  - We want to fill out "AcademicPlanFall2024.xlsx", with the classes we've taken and our future plan of study, and submit the .xlsx file to Canvas for this assignment.

- In summary, the Box folder contains these documents:
  - F24Assignment-Advising.pdf: this handout!
  - AcademicPlanFall2024.xlsx: blank Excel spreadsheet advising tool
  - AcademicPlanExampleFall2024.xlsx: example Excel spreadsheet for Michelle Sanchez (fictional student)
  - PrereqFlowchart.png (flowchart of all CS requirements, showing prerequisites)

- Assignment Submission
  - Strictly follow **Dr. Bill Hsu/the CS Department's guidelines**.
    - Please reach out to Dr. Hsu for more information:
      - Course's Canvas/Discussions/Assignment Advising Discussions
    - This assignment is mandatory.
    - This assignment is required by the Computer Science department.
    - Dr. Hsu manages it.
    - This assignment is one of our CSC 215 assignments.

Happy Fall 2024 semester to all of us!

CSC 215 Assignment: Define your Computer Science Academic plan (25 points)

1) Our team would like to help you explore our CS major this semester. To do this, we have prepared an assignment where you will create an academic plan that covers 74 units of Computer Science courses on your academic plan. Our primary goals for this assignment:
   a) Begin a friendly discussion about your own academic development and,
   b) To make sure you can complete your B.S. Degree in C.S. in a reasonable amount of time by better understanding lower and upper division classes required in our C.S. program. *This academic plan will focus on CS classes; you will not be required to describe GE prerequisites.*
2) The academic plan will help you determine *how to select classes each semester to complete your CS major requirements.*

Background:

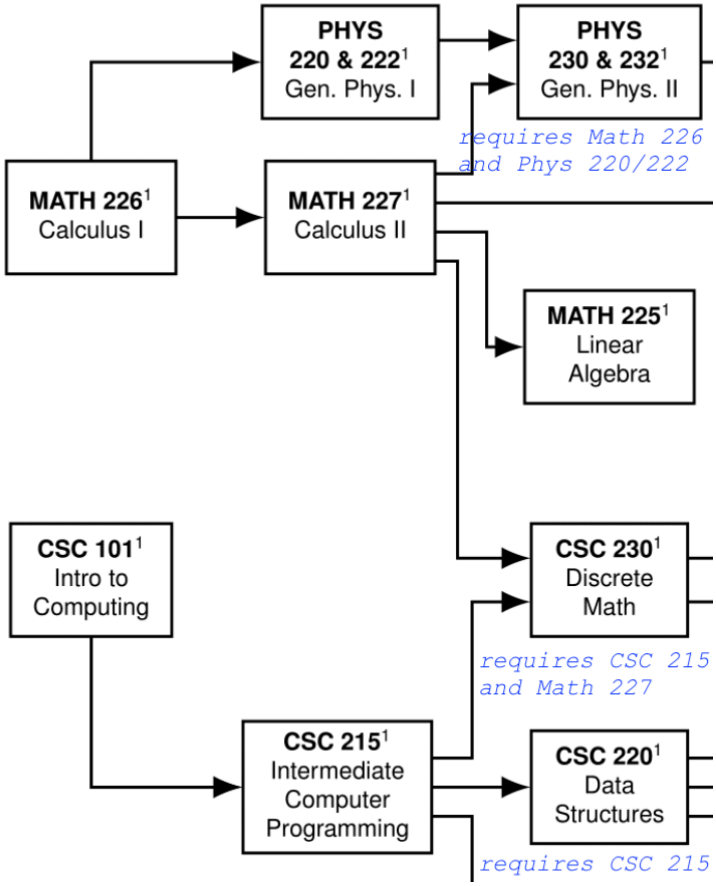
a) Our Bachelor of Science in Computer Science program requires 120 total units which includes GE prerequisites. However, our CS program alone requires 74 units in *three* specific areas
   i) Mathematics and Physics (22 units)
   ii) Core Computer Science Requirements (28 units)
   iii) Advanced Computer Science Requirements/Electives (24 units)

b) Classes are subdivided into lower and upper-division classes. Any class numbered < 300 is considered a lower division class (i.e., CSC 215, Math 226, or Phys 220). Any class numbered >= 300 is an upper-division class (i.e., CSC 317, CSC 300GW, CSC 308, etc.).

c) We can find a list of all CS classes with their prerequisites in our CS bulletin, along with a class description. Course descriptions, symbols, and terms for other classes in our CS program are listed at these links:

- Math: https://bulletin.sfsu.edu/courses/math/
- Physics: https://bulletin.sfsu.edu/courses/phys/

d) **Prerequisite Chart.** Our pre-requisite chart is a visual representation of the lower and upper-division classes needed to complete our CS major per semester (no GE classes). Classes are connected by a web of lines and arrows that help you assess the best path to take to meet key pre-requisites. Let's look at three classes: CSC 220, CSC 230, and Phys 230/232.



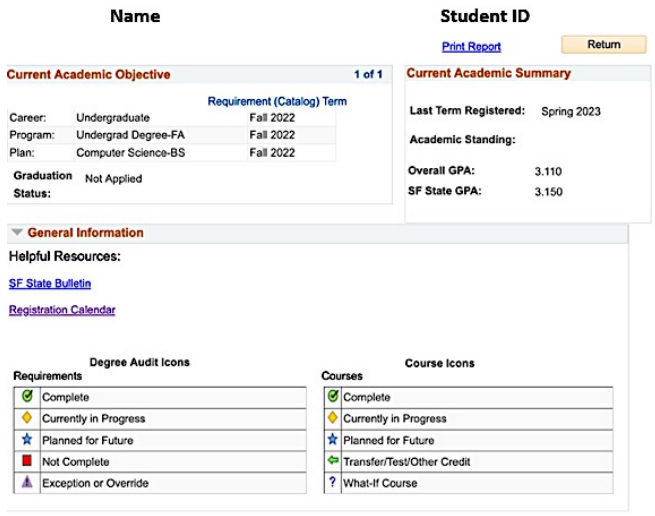
Our flowchart indicates that to enroll in CSC 220, you need to successfully complete CSC 215 with a C or better, while CSC 230 requires CSC 215 and Math 227 (may be taken concurrently according to our bulletin). Phys 230/232 requires Math 226 and Phys 220/222.

Our CS Department strictly enforces prerequisites for all courses. Prerequisites are checked by CS faculty at the beginning of each course.

e) **Degree Progress Report.** Your DPR or Degree Progress Report is a web-based tool that evaluates where you stand with all graduation requirements (GE, University, and CS major requirements). It contains a checklist of all requirements for your CS major, including all classes in the prerequisite flowchart, and also GEs. Guidelines on how to access, read and analyze your DPR can be found on this link: https://registrar.sfsu.edu/dprguide. Your DPR analyzes your overall academic progress by highlighting classes you have completed, are currently in progress, or are not complete. The information presented on your DPR is organized into sections:

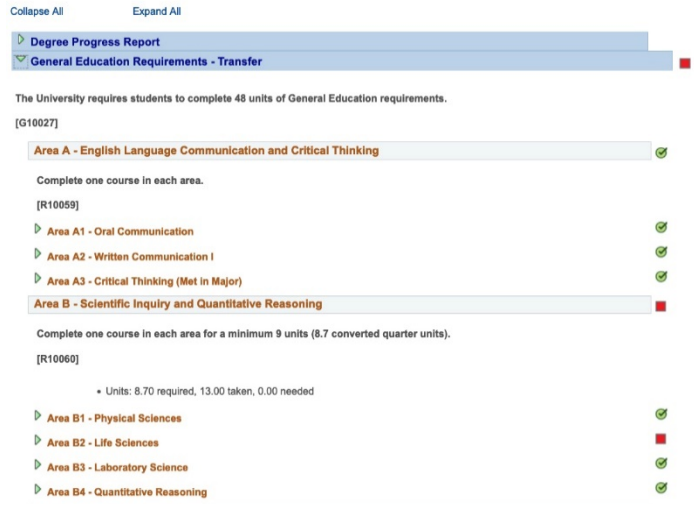
- General Education (GE) Requirements
- University Requirements
- 120 Minimum Units Required for Degree
- Major Requirements
- Additional Course Information

f) Let's review a few key sections on your DPR:

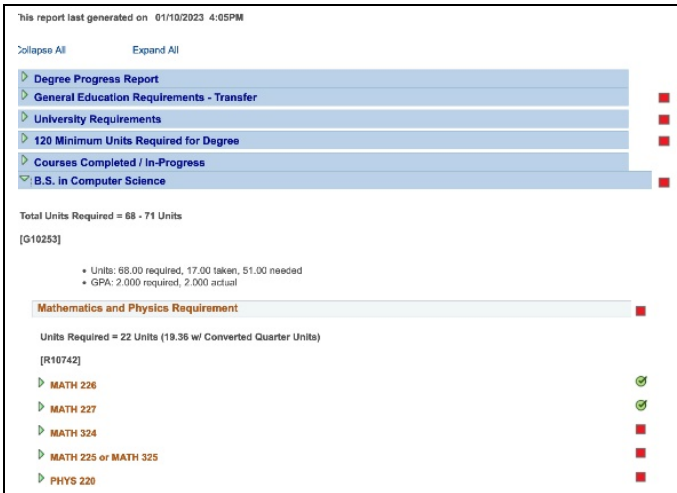


Summary of your academic status and degree icons

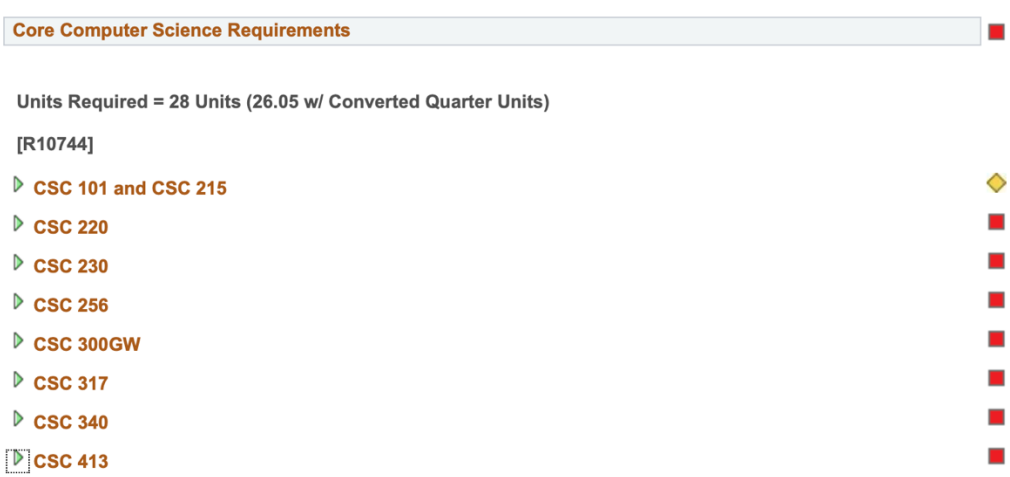
Academic Summary & General Info. Once you access your DPR, you'll notice a summary of your degree (name, student, ID, major, GPA, graduation status, etc). This section also has useful links and degree-course icon legends that helps you determine the status of each section and courses (i.e., complete, in progress, not complete).



GE Requirements. This section contains information about your progress toward satisfying each GE requirement. Your DPR will display different General Education (GE) patterns, depending on whether you transferred classes from other colleges or entered SFSU as a freshman (without transfer credit).



Major Requirements/B.S. in Computer Science. This section contains information about your declared Computer Science major based on the bulletin year you declared. It includes all Math and Physics classes (23 units), core computer courses (25 units), Advanced Computer Science



requirements (12 units) and 12 units of CS electives - Not shown on image.

Please note that our advising assignment *will not ask you to add GE classes to your academic plan*. For questions about GE classes, resident and university requirement we suggest contacting our UAC advisors

3) *CSC215 assignment: Please follow these instructions to submit your academic plan:*

a) Goal: create a semester-by-semester Plan of Study for our four years at SFSU. We'll choose classes for each semester, following the guidelines above, and create a workable plan for the next few years so we can graduate on time!

b) Download a copy of the blank Academic Plan spreadsheet: https://sfsu.box.com/s/aq25yct0irtdkwhfs8l68xekwbjqnczj

c) Access your DPR (at gateway.sfsu.edu) and review all courses found in your B.S. in Computer Science section. Our assignment will focus on our CS major! *You will not be required to submit a plan to fulfill other sections on your DPR (i.e., GE).*

d) Identify what classes are incomplete (RED) in your CS major. These include Math/Physics, core & advanced CS classes, and electives. (Again, don't worry about GEs.)

e) Since you are taking CSC 215, I would begin by listing all incomplete lower division classes (i.e., CS220, CSC 230, Math 226, Phys 220/222, etc) from your DPR on an excel sheet document.

f) Determine if you already fulfill any specific prereq's by reviewing notes posted on our bulletin (see sections 2c-e above, or https://cs.sfsu.edu/undergrads/prerequisite-chart).

g) Once you have established a list of lower division classes, the next step is to think about the # of units that you can handle per semester. If you receive financial aid, you *MUST* register for 12 units or more (see link for more info). Many SFSU students choose to take a full academic load which typically entails between 12-19 units per semester. Although not part of this assignment, we recommend that you consider your GE prereq's to make sure you have a more balanced academic experience. If you work part time, please consider taking fewer units. Full-time workload is 40 hrs/ per week. If you work 25% time (10 hrs/week), you should plan on at most a 75% courseload, or 9-14 units per semester.

In general, I suggest taking <= 12 units of CS major requirements every semester, plus some GEs. CS major requirements (including Math and Physics) are more demanding than most GEs. Having a mix of CS requirements and GEs every semester would help balance our courseload.

h) Summer Classes: If graduating early is one of your goals, many students also plan to take summer classes to get either GE or core CS requirements out of the way. Taking a class in the summer ensures that you're qualified for a key class in the Fall semester. Please visit this link to explore our summer classes (https://cpage.sfsu.edu/sfsummer).

i) *Academic Plan*: Organize all lower-division classes on an Excel spreadsheet as shown here: https://sfsu.box.com/s/roamja44b0kzs228ve99lb2e3tevx611

To get full credit for this assignment, you must include the following information

i) For each lower division course required for the CS degree, list the course name (2.0 points)
ii) List the number of units for the course (2.0 points)
iii) List the total # of units in that semester, and the # of CS program units (2.0 points)
iv) organize classes per semester and year (2.0 points)

I strongly recommend you use our pre-requisite chart to cross off any classes already considered on your report as shown in our example.

j) *Once you begin taking care of all these lower division prereq's, we would like you to list upper division CS classes that you need to complete your B.S. Degree in C.S.*

k) If you are unsure where to begin, I recommend you look at our Prereq chart. Classes are organized per semester, and it allows you to determine if you are ready to take the next set of classes in your major such as CSC 300GW, CSC 317, CSC 340, Math 324, and Math 225 (this used to be Math 325 in older bulletins).

l) Incorporate these upper division classes into you Excel spreadsheet with the following information:
   i) For each upper division course required for the CS degree, list the course name (2.0 points)
   ii) List the number of units for the course (2.0 points)
   iii) List the total # of units in that semester, and the # of CS program units (2.0 points)
   iv) organize classes per semester and year (2.0 points)

m) To get full credit, your report MUST include
   *i) 74 units of Computer Science on your academic plan (**GE prereq's are optional**) (2.0 points)*
   ii) Your report MUST have your name and SID (2.0 points)

n) **Deadline:** Save your report as an Excel spreadsheet (.xlsx or .xls), and submit it on our CSC 215 CANVAS page by October 9th (5 points).

o) **Note:** there is no one correct Plan of Study for each of us! Many options might be equally ok. Just make sure:
   i) we follow prerequisites
   ii) we choose <= 12 units of CS requirements per semester

This CSC 215 advising assignment is worth 25 points (5% of your grade). Your DL, assisted by Dr. Hsu, CS Dept. academic advisor, will review your academic plan by using your DPR and transcript report, if needed.

4) **Reasons for losing points on this report**:

- Any assignment uploaded after the due date will lose 2.5 points per day. Any assignments uploaded after a week or more will need approval from CS advisor- Dr. Hsu (email: whsu@sfsu.edu).
- Missing or incomplete list of core lower division classes,
- Missing or incomplete list of upper division classes,
- Report does not include units for each class,

- Report does not include total # of units per semester
- The report does not organize classes by semester and year as shown here
- Report is not submitted as an Excel spreadsheet (.xslx)
- Report does not have a name/Student ID.

Please email me if you have any questions at whsu@sfsu.edu

Advising Assignment for students not majoring in Computer Science

We are aware that some of you are not planning to pursue a B.S. in Computer Science. Our advising team would like to give you a special assignment to encourage you to explore how computer programming is influencing the world around you!

Advising Assignment Description: We would like you to first observe how computing is being used in your major. Notice how experts in your field are using computing systems. How are they using computers in their work? What are they doing with it? Do you see an alternative to using computers for them?

To help you with the observation, we suggest using the following table:

Who is using it?	What device or software are they using?	Why are they using the device/software?	Do you think there is an alternative way to do the work? If not, how was the work done historically (if at all)?	From where did you gather this information? (Citation or links)

Tip: Searching on Google or Wikipedia can be very helpful to gather some of this information. You can also ask your professors how they use computing systems. Try to ask more specific questions about what software or devices they use, and how/why they use it.

Building on the table above, submit an essay (between 1000-1500 words in length) that describes how coding/computer science is influencing your field (i.e., Mathematics, Physics, Biochemistry, Business, etc). We would like you to include the following sections to get full credit:

Title: A title **tells your reader what your essay is about or what to expect!** “Advising assignment” is not an appropriate title for your essay.

Introduction
Your essay must contain an introduction that addresses the following questions:
What is your field of study?
How did you become passionate about this field of study?
Why are you interested in programming/taking CSC 215?

Main Body
This section of your essay must tell us about how programming/computer science is impacting your field of interest.

We are not looking for a laundry list of software, apps, etc. that you've heard about. Instead, we are looking for a thoughtful and well-developed set of ideas that come together, using proper grammar, to describe the profound ways that coding has advanced your academic field.

We encourage you to use examples since they will significantly strengthen your essay. However, you ***MUST*** include a list of references or sources that you have used in your writing so we can read more about them, avoid plagiarism, and give credit to all authors. If you have used multiple sources, I strongly recommend adding a bibliography list at the end of your essay to get full credit. If you interviewed your professors or other experts in your field, name them and identify their comments clearly.

Conclusion. In this section, we are looking for 1-2 paragraph(s) that tie together your main points in a concise and convincing way.

Bibliography. This section lists all the references used to create this advising assignment. It includes everything you used in the creation of the work including books, online articles, newspaper articles, etc. For more information on how to do this I encourage you to visit our SFSU library, or use online resources such as bibliography.com, Purdue University and Sheridan College websites.

To get full credit, your essay MUST cover the following areas to obtain full credit (25 points)

i) *Include Your name, SID, and SFSU major (1 point)*
ii) *Include a Title (2 points)*
iii) *Include an Introduction (2 points)*
iv) *Fill in the table above with at least 5 ways in which you have found computing influencing your field or major (5 points)*
v) *Include a "main body" where you describe how your field or major is impacted by coding/computer science (5 points)*
vi) *Include a Conclusion (2 points)*
vii) *Include a Bibliography (2 points)*
viii) *Check for grammatoca; errors (1 points)*

Deadline: Save your report as a PDF document and submit it on our CSC 215 CANVAS page by October 9th (5 points)..

This CSC 215 advising assignment is worth 25 points (5% of your grade). Dr. Hsu, CS Dept. academic advisor, will review your essay. If you have any questions about this assignment, please contact Dr Hsu at whsu@sfsu.edu

Reasons for losing points:

- Any assignment uploaded after the due date will lose 2.5 points per day. Any assignments uploaded after a week or more will need approval from CS advisor Dr. Hsu (email: whsu@sfsu.edu).
- Essay is not submitted in a PDF format.
- Essay does not have a name, student ID, and it does not include student's major.
- Missing one or more key sections such as a title, an introduction, main body, conclusion, and bibliography
- Frequent grammatical errors
- Essay lacks organization
- Essay does not address the main topic-how coding/CS impacts your chosen field of study.