

Here's some advice

We are going to cover

- Degreeworks
- Academic Options
- Internships
- Important Reminders

Degreeworks

- Degreeworks is your best source of information about
 - What courses you need to take
 - What the prerequisites are for the courses you need to take
 - The number of career drops you've used
 - How much longer it will take you to graduate if you change majors “What if” functionality

Degreeworks

Level	Undergraduate	Classification	Senior	Major	Computer Science (BS_219A)	Campus Code	MC	Admit to College	ACAS	College	AS
Academic Standing	Good Standing	Career Drops Used	1	Cumulative Earned Hours	90	Advisors	Cindy Norris	Catalog Year	2020		

The important things here are:

- **Advisor** - who do you contact with questions?
- **Earned hours** - need 120 total to graduate
- **Catalog year** - determines degree requirements (CS last significant change was in 2019)
- **Career Drops** - you can drop four courses without penalty

Computer Science (BS)

INCOMPLETE

Credits required: 120 Credits applied: 105 Catalog year: 2020-2021

This student has earned 90 hours (previous slide) and is taking 15 hours this semester (credits applied is 105)

- | | | | |
|----------------------------------|---|----------------------|--|
| <input type="radio"/> | 120 Semester Hours Required for this Degree | Still needed: | A minimum of 120 semester hours is required. You currently have 105 (this includes the courses for which you are registered); you still need 15 more semester hours after completing your current coursework to meet the minimum hour requirement. However, you may need additional hours to complete all remaining degree requirements. |
| <input checked="" type="radio"/> | 30 Semester Hours Completed In Residence | | |
| <input type="radio"/> | Graduation Information | Still needed: | See Graduation Information section |
| <input type="radio"/> | General Education Requirements | Still needed: | See General Education Requirements section |
| <input type="radio"/> | Major Requirements | Still needed: | See Major in Computer Science section |
| <input checked="" type="radio"/> | You meet the minimum 2.0 GPA requirement. | | |

To get a degree at App State, at least 30 hours must be earned here

Graduation Information

INCOMPLETE



Catalog year: 2020-2021

[For additional Graduation and Commencement information, click here](#)

- Apply to Graduate through your AppalNet account

Still needed:

If you plan to complete your degree requirements within the next two terms, please be sure to apply to graduate through your AppalNet account. Please review your degree requirements with your advisor to be certain that you are on track for graduation.

You need to apply to graduate one semester before you plan to graduate (e.g. right now if you plan to graduate in May 2024)

General Education Requirements

INCOMPLETE

Catalog year: 2020-2021

----- For detailed General Education Program of Study information, click here -----

	Course	Title	Grade	Credits	Term	Repeated
<input checked="" type="checkbox"/>	FINE ARTS (FA) DESIGNATION MET					
<input checked="" type="checkbox"/>	HISTORICAL STUDIES (HS) DESIGNATION MET					
<input checked="" type="checkbox"/>	LITERARY STUDIES (LS) DESIGNATION MET					
<input checked="" type="checkbox"/>	SOCIAL SCIENCES (SS) DESIGNATION MET					
<input checked="" type="checkbox"/>	First Year Seminar	UCO 1200	LAND CONSERVATION IN NC MTNS	A	3	Spring 2021
<input checked="" type="checkbox"/>	First Year Writing	R_C 1000	EXPOSITORY WRITING	A	3	Fall 2020
<input checked="" type="checkbox"/>	Second Year Writing	R_C 2001	INTR WRITING ACROSS CURRICULUM	B+	3	Spring 2022
<input checked="" type="checkbox"/>	Quantitative Literacy	C_S 2435	INTRO TO SCIENTIFIC PROGRAM	B-	4	Fall 2020
<input checked="" type="checkbox"/>	Wellness Literacy	P_E 1754	WEIGHT TRAINING	B+	1	Spring 2022
		P_E 1876	ALPINE SNOWBOARDING	A	1	Spring 2023
<input checked="" type="checkbox"/>	INTEGRATIVE LEARNING EXPERIENCE (ILE)					
<input checked="" type="checkbox"/>	Appalachian Mountains: Community, Culture, and Land	A_S 2016	APPALACHIAN MUSIC	A	3	Spring 2023
		A_S 2200	APPALACHIAN STORIES	A	3	Fall 2022
		A_S 2411	APPALACHIA: AN INTRODUCTION	A	3	Spring 2023
<input type="checkbox"/>	LIBERAL STUDIES EXPERIENCE (LSE) (AT LEAST THREE DISCIPLINE PREFIXES)					
<input type="checkbox"/>	Liberal Studies Experience	HIS 1102	WORLD CIVILIZATION II	P C	3	Fall 2020
		R_M 2100	LEISURE IN SOCIETY	--	(3)	Fall 2023
	Still needed:	You have taken 6 credit(s) and need 6 more in this area.				
<input checked="" type="checkbox"/>	SCIENCE INQUIRY					
<input checked="" type="checkbox"/>	Voyages Through the Cosmos	AST 1001	INTR ASTRO I/SOLAR SYST	B	4	Fall 2021
		AST 1002	INT ASTRO II/STAR GALAX	C-	4	Spring 2022



Notice the link to get information about the gen ed requirements



Appears wherever you have a requirement left to meet (A discipline prefix is HIS or CS.)

Major in Computer Science

INCOMPLETE

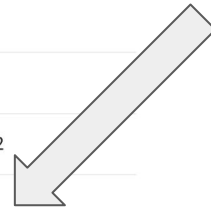


Catalog year: 2020-2021

	Course	Title	Grade	Credits	Term	Repeated
✔	Writing in the Discipline Course (WID)	ENG 3695	TECHNICAL WRITING FOR COMP SCI	A	3	Spring 2023
○	Capstone Course (CAP)	Still needed:	Capstone Course still needed.			
○	MAJOR REQUIREMENTS					
✔	Computer Science I	C_S 1440	COMPUTER SCIENCE I	A-	4	Spring 2021
✔	Computer Science II	C_S 2440	COMPUTER SCIENCE II	A-	4	Fall 2021
✔	Introduction to Computer Systems	C_S 2450	INTRO TO COMPUTER SYSTEMS	B-	3	Fall 2022
✔	Introduction to Theoretical Computer Science	C_S 2490	INTRO THEORETICAL CMP SC	B	3	Fall 2022
✔	Database	C_S 3430	DATABASE	A	3	Fall 2022
✔	Data Structures	C_S 3460	DATA STRUCTURES	B-	3	Spring 2022
ⓘ	Computer Systems I	C_S 3481	COMPUTER SYSTEMS I	--	(3)	Fall 2023



indicates a course
In progress



<input type="radio"/>	Computer Systems II	Still needed:	1 Class in C_S 3482			
<input checked="" type="checkbox"/>	Programming Languages	C_S 3490	PROGRAMMING LANGUAGES	A	3	Spring 2023
<input checked="" type="checkbox"/>	Software Eng					ing 2023
<input type="radio"/>	Senior Semir					2023
<input checked="" type="checkbox"/>	Junior Semir (WID)					ing 2023
<input type="radio"/>	Capstone Pro Thesis (CAP)					
<input checked="" type="checkbox"/>	Discrete Mat					ing 2021
<input checked="" type="checkbox"/>	Calculus with Analytic Geometry I	MAT 1110	CALCUL ANALY GEOM I	B+	4	Spring 2021
<input checked="" type="checkbox"/>	Calculus with Analytic Geometry II	MAT 1120	CALCUL ANALY GEOM II	B+	4	Spring 2022

Course Information ✕

C S 3482 - 0 or 3 Credits - COMPUTER SYSTEMS II

When Offered: Fall; Spring. Continuation of CS 3481. Lecture two hours, laboratory three hours. Prerequisites: CS 3460 with a minimum grade of 'C-' (1.7); CS 3481.

If you click on a course that you need to take, you will be shown the course description, including the prerequisites. **Note the minimum grade requirements.**

Fall Through

Credits applied: 47 Classes applied: 18

Course	Title	Grade	Credits	Term
ART ELET	ART ELECTIVE 10 YEAR	TRC	4	Fall 2022

Fall through courses are those that contribute to the 120 hours to graduate but don't meet a degree requirement.

Generally these are courses that were taken at another university.

CS students are required to take “free electives” (any course) to get to 120 hours. These show up in the **major block**. It's possible for a CS student to graduate with no “fall through” courses.

(This student has 18 fall through courses. Only one is shown here.)

Student ID × Name

Degree
Certificate in Data Science

[Advanced search](#)

Level Undergraduate **Classification** Senior **Major** Data Science (UG Cert_614A) **Campus Code** MC **Admit to College** ACAS **College** ND
Academic Standing Good Standing **Cumulative Earned Hours** 115 **Advisors** Dan Caton, Cindy Norris **Catalog Year** 2020, 2020

Minors will show up on the page of info with your major.
If you want to see what you need to complete for your Data Science Certificate, you need to select that from the Degree drop down list.

Academic Option: Accelerated Bachelors to Masters

- If you have a GPA of 3.2 or above (or you're going to do the work to get it there), think about entering the Accelerated Bachelors to Masters Program
- During your senior year, you can take grad courses that count toward both your undergraduate degree and a future graduate degree
 - Up to 12 hours can double count

Students who graduate with an MS typically have better job opportunities than those with only a BS

For more information contact CS graduate program director:
Dr. Mitch Parry, parryrm@appstate.edu

Academic Option: Data Science Certificate

- Data scientists extract meaningful insights from data using
 - statistics
 - algorithms
 - programming skills
- Data scientists use data to answer questions like:
 - Will this person renew their subscription?
 - What kind of car is this person likely to buy?
 - Is this a picture of a cat or a dog?



Data Science Certificate Requirements

- Although the certificate is open to all majors, it is easier for CS majors to earn because of the significant overlap in requirements
- Requirements:
 - **CS 2435:** Introduction to Scientific Programming (Programming in Python)
 - **CS 2440: Computer Science II** can be a substitute
 - **Math 2240:** Linear Algebra
 - Required for CS major
 - **Stat 3850:** Statistics
 - Required for CS major
 - **CS 3435:** Data Acquisition and Visualization
 - *The one “extra” course, but it also contributes to the 120 hours needed to graduate*
 - **CS 4755:** Applied Machine Learning
 - Counts as CS elective (12 hours of CS electives required for CS major)

Why Data Science Certificate?

50 Best Jobs in America for 2022

Best Places to Work

Top CEOs

Best Jobs

Best Cities for Jobs

Highest Paying Jobs

 Share

2022 ▾

United States ▾



Discover Glassdoor's Best Jobs in 2022

Using Glassdoor's unique data on jobs, salaries, and companies, we compiled a list of the [50 Best Jobs in America](#) to help people find jobs they'll love. Each job stands out for its earning potential (median salary), job satisfaction, and job openings. Are you considering a new position? Check out this comprehensive list to see what jobs made the list this year, and view open jobs at companies across the country.

Job Title	Median Base Salary	Job Satisfaction	Job Openings	
#1 Enterprise Architect	\$144,997	4.1/5	14,021	View Jobs
#2 Full Stack Engineer	\$101,794	4.3/5	11,252	View Jobs
#3 Data Scientist	\$120,000	4.1/5	10,071	View Jobs

Academic Option: Department Honors Program

- To graduate with Honors in Computer Science, a student must:
 - Earn a minimum of 9 hours of honors credit:
 - 6 hours of honors courses in Computer Science
 - 3 hours of honors thesis/project (instead of Capstone)
 - Possess a minimum GPA of 3.45 in the Computer Science major upon graduation
- Graduate courses count as Honors courses
 - Take Graduate courses to graduate with honors and simultaneously work toward earning the Master's degree

Why Honors?

- Richer, more in-depth educational experience
- Interested in becoming a faculty member in higher education?
 - PhD required by most institutions
 - PhD generally requires writing a thesis
 - Honors provides the opportunity to write a thesis
- Interested in becoming a Researcher in academia or industry
 - Honors provides the opportunity to perform research under the guidance of a faculty member

For more information contact CS department honors program director:
Dr. Mark Hills, hillsma@appstate.edu

Academic Options: Minors

Math minor

- MAT 1120: Calculus II plus 9 more hours
 - MAT 2240: Linear Algebra
 - MAT 4310: Numerical Methods (counts as CS elective)
 - MAT 2310: Computation Mathematics (prerequisite to MAT 4310)

You can get the Math minor with one extra course: MAT 2310

Cybersecurity minor

- 15 hours of coursework (five courses)
- <https://cis.appstate.edu/cybersecurity/cybersecurity-minor>
- Our CS 3760 System Administration and Security counts!!

Internships

- Internships provide real-life experiences at partner colleges or industries
 - Often an internship will lead to a job offer upon completion of a degree
- Spring 2023 graduates
 - 66% of graduates sought an internship
 - 62% of those seeking an internship were able to obtain one
- CS 4900 Internship course is an approved Computer Science elective!
 - 18 interns in CS 4900 last summer, 10 last academic year
- Lots of variety
 - Big company, small company
 - On-site experience, remote experience
 - Local company, regional company, “West Coast” company (San Francisco, Seattle)

All of you should be looking for an internship at some point in your academic career. Typical time to look is in the fall/spring of your junior year (internship in summer after junior year)

How to find an internship

- <https://cs.appstate.edu/internships/>
 - Sign up to get emails about flyers
 - Look at recent internship organizations
- Club meetings
- Handshake: <https://careers.appstate.edu/handshake>
- App State Career Center job and internship fairs
- Linked In
- Indeed
- Mom / Dad

Some final important notes

- CS 3667: Software Engineering must be taken before CS 4800 Capstone
- ENG 3695: Technical Writing in CS is taken instead of CS 3100
- ENG 3695 must be taken before CS 4100 Senior Seminar
- CS 2490 is a new prerequisite for CS 3460
- Apply for graduation at the beginning of the semester in the semester *before* you plan to graduate. Apply through appalnet.
- Select Gen Ed themes through Appalnet
 - Be sure to select a Science Inquiry that also meets your CS degree requirements

Some final important notes

- Adding/removing a certificate/major/minor and changing catalog year is done through an online form on the College of Arts & Sciences website
 - <https://cas.appstate.edu/advising/student-forms>
 - If you want to add a major in another college, you need to seek advising in that college
- Last day to use a career drop for this semester is **Wednesday, October 25th**
 - You have four career drops available throughout your academic career
 - You also have four repeats (for four **different** courses) where a grade is replaced
- Dept “Advising Corner” webpage: compsci.appstate.edu

Questions?