



Instructional Services · Digital and Information Tech · Computer Programming

Programming Fundamentals I-16412

COSC-1436

SS 2024 Section 0023 4 Credits 02/12/2024 to 05/12/2024 Modified 02/09/2024

Our Vision

Houston Community College shapes the future for all students with innovative, affordable, timely, responsive, and continuously improving educational programs and services. Partnered with the communities we serve, we take a defining role in regional economic, workforce, and social development.

<https://www.hccs.edu/about-hcc/> (<https://www.hccs.edu/about-hcc/>)

Course Meetings

Course Modality

WW - This section is taught as a WW course (traditional online course without scheduled meetings).

Meeting Days

Online (N/A)

Meeting Times

Online (N/A)

Meeting Location

Online (N/A)

Welcome and Instructor Information

Instructor: Prof. Chrystal Tyler

Email: chrystal.tyler@hccs.edu

I graduated from the University of Texas Austin with a bachelor's degree in electrical engineering and from the University of Houston Clear Lake with a master's degree in software engineering. I have been working in the Information Technology industry for sixteen years and teaching at HCC since 2012.

If you have any questions, please feel free to send me an email message inside of Eagle Online. (If you are having problems with Eagle Online, you can use my HCCS email: chrystal.tyler@hccs.edu).

Office Hours

- By appointment; any day of the week: <https://hccs.webex.com/meet/chrystal.tyler>
- Weekly Office Hours, Wednesday 10-11AM (Please drop in!)

I am available on most days by appointment. Make sure and email me to verify if I will be there as I'm sometimes scheduled for meetings.

Course Overview

Course Description

(4 Credits / 96 hours per semester) COSC 1436 introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. This course is included in the Field of Study Curriculum for Computer Science.

Prerequisites

Must be at college-level skills in reading and writing, **placed into MATH 1314 College Algebra or higher**, and have had high school computer literacy or equivalent. If you have enrolled in this course having satisfied these prerequisites, you have a higher chance of success than students who have not done so. Please carefully read and consider the repeater policy in the [HCCS Student Handbook](http://www.hccs.edu/resources-for/current-students/student-handbook/). (<http://www.hccs.edu/resources-for/current-students/student-handbook/>).

Note: Electrical Engineering majors must take C or C++ programming language in order for COSC 1436 to transfer toward Electrical Engineering at a university.

Computer Programming Department Website

<https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/computer-programming/> (<https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/computer-programming/>).

Core Curriculum Objectives (CCOs)

COSC 1436 satisfies Component Area Option in the HCCS core curriculum. The HCCS Core Curriculum Committee has specified that the course address the following core objectives:

- **Critical Thinking.** Students will demonstrate the ability to engage in inquiry and analysis, evaluation and synthesis of information, and creative thinking by completing the class project and assignments, along with answering questions on quizzes and exams.
- **Communication Skills.** Students will demonstrate effective development, interpretation and expression of ideas through written, oral, and visual communication by completing assignments and participating in online or in-class discussions.
- **Quantitative and Empirical Literacy.** Students will demonstrate the ability to draw conclusions based on the systematic analysis of topics using observation, experiment, and/or numerical skills by completing assignments, and answering questions on quizzes and exams.

Student Learning Outcomes and Objectives

Program Student Learning Outcomes (PSLOs)

Can be found at:

<https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/computer-programming/> (<https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/computer-programming/>).

Course Student Learning Outcomes (CSLOs)

Upon completion of COSC 1436, the student will be able to:

- Describe how data are represented, manipulated, and stored in a computer.
- Categorize different programming languages and their uses.
- Understand and use the fundamental concepts of data types, structured programming, algorithmic design, and user interface design.
- Demonstrate a fundamental understanding of software development methodologies, including modular design, pseudo code, flowcharting, structure charts, data types, control structures, functions, and arrays.
- Develop projects that utilize logical algorithms from specifications and requirements statements.
- Demonstrate appropriate design, coding, testing, and documenting of computer programs that implement project specifications and requirements.
- Apply computer programming concepts to new problems or situations.

Learning Objectives (Topics)

- Introduction to Computers/Programming
- Elementary Programming (variables, input/output, etc...)
- Selections
- Mathematical Functions, Characters, Strings
- Loops
- Functions
- Single and Multi-Dimensional Arrays

Departmental Practices and Procedures

Instructor and Student Responsibilities

As your Instructor, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar
- Arrange to meet with individual students as needed

As a student, it is your responsibility to:

- *To complete your own work! Do not copy from outside sources, friends, or tutors.*

Plagiarism is defined in the Webster dictionary to steal and pass off (the ideas or words of another) as one's own; use (another's production) without crediting the source. At HCC we take plagiarism very seriously. If your code is found online (Chegg, Course Hero, etc.), you will receive a zero (0) for that question.

- Attend class in person and/or online
- Be on-time!!
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook/course materials
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Be aware of and comply with academic honesty policies in the [HCCS Student Handbook](http://www.hccs.edu/resources-for/current-students/student-handbook/) (<http://www.hccs.edu/resources-for/current-students/student-handbook/>).

Program-Specific Student Success Information

There is no short cut for success in this course; it requires reading, studying the material, completing the assignments, ***but most importantly, practicing the concepts on your own.***

A programming concept can be used multiple ways. Using a concept once (or twice), in one assignment, will not provide you the necessary proficiency. "Practice" with the concepts on your own.

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content.

Students may ask questions to other students, to me, or to anyone else. This is how we learn, and we encourage this. **HOWEVER, all work must be started and completed in its entirety on your own. If your code is found online (Chegg, etc...) you will receive a 0. If your code is copied from a classmate, both students will receive a 0. If it is found that students are sharing the same files, and then making minor changes to submit the work as their own, both students will receive a 0 on the assignment and may possibly be removed from the class.** Note: It is very easy for instructors to determine if code was copied from another student. Please refer to the student handbook regarding cheating. For more information see the Academic Integrity section of the syllabus, shown below.

If you would like to speak out to our department's Success Coach, please email naseem.nikooei@hccs.edu.

Instructional Materials and Resources

This course participates in the Houston Community College First Day Program. A discount has been applied to the required digital course materials. The discounted charge has been added to students' tuition and fee bills.

Students will access course materials through a link in Canvas. Instructions for opting out of the HCC First Day Program are also posted in Canvas. Students who opt out will still be responsible for obtaining required course materials.

Other Instructional Resources

You are **REQUIRED** to download Python IDLE onto your PC (or Mac). More information provided in our Canvas course materials.

Course Requirements

Assignments, Exams, and Activities

Type	Weight	Topic	Notes
Discussions	5		Discussions are posted in Canvas. Can view other student Discussions after posting yours.
Quizzes	10		Short assessments you complete in Canvas. You will have unlimited attempts.
Projects	30		Programs you must develop using your IDE and then uploaded into Canvas.
Revel Labs	15		Short quizzes and programs completed on our Pearson Revel site with unlimited attempts. Use the Pearson Revel link from within Canvas.
Mid-Term	20		Online, timed and password protected Canvas Quiz using Lockdown Browser. You will have ONE attempt.

Type	Weight	Topic	Notes
Final Exam	20		Online, timed and password protected Canvas Quiz using Lockdown Browser. You will have ONE attempt.

Grading Formula

Grade	Range	Notes
A	89.5 - 100	
B	79.5 - 89.4	
C	69.5 - 79.4	
D	59.5 - 69.4	
F	0 - 59.4	

* Instructor's Practices and Procedures

Incomplete Policy

In order to receive a grade of Incomplete ("I"), a student must have completed at least 85% of the work in the course. In all cases, the instructor reserves the right to decline a student's request to receive a grade of Incomplete.

Missed Assignments/Make-Up Policy

Make-up exams will only be given in cases of extenuating circumstances. Extenuating circumstances are unexpected and unavoidable situations such as hospitalization, auto accidents, etc. You will need to provide documentation to your instructor as soon as possible after (or even before, if possible) the missed assignment/assessment for consideration. Extenuating circumstances will be evaluated by your instructor on a case by case basis. It is your responsibility to contact your instructor with documentation of your situation as soon as possible, schedule a makeup exam, and submit the proper documentation to the department. All missed grades will be recorded as zeros. If you will be out of town during the final exam dates, you must inform your instructor at least 2-weeks prior to the exam.

Academic Integrity

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance):

<https://www.hccs.edu/studentprocedures> (<https://www.hccs.edu/studentprocedures>).

Attendance Procedures

Students should log in to the course on the first day of class. Students should also log in and complete work on time as documented. It is recommended to log in at least 3 times a week. If you have not already done so, it is suggested to download the Canvas app onto your phone so that you can be notified when new e-mails and announcements are posted.

Note: You must make satisfactory progress in this course. Students may be withdrawn from the course for non-participation (i.e. missing course work/assignments including Quizzes, Discussions, Revel Lab assignments, and/or Programs/Project assignments that total more than 12.5% prior to official withdrawal date)!

Student Conduct

Three simple rules:

- (1) Students should be respectful to everyone in the classroom.
- (2) Students should be willing to spend time on this course.
- (3) Students should be ready to learn and have fun.

Instructor's Course-Specific Information

The course modality of this class is online Anytime (WW). Faculty will instruct this class as a traditional online course utilizing Canvas Eagle Online. Attendance will be taken through completion of online assignments.

The most important advise I can give you is to practice. Assignments are not always able to be completed an hour or two before the due date. For some, it may take a couple of days of practice. For others, it may take even longer. Summer courses move at a fast-pace. Start work immediately and work ahead so that you have extra time when, or if, it is needed.

Devices

Students should have access to a Windows PC/laptop or a Mac/Macbook.

Faculty Statement about Student Success

See Student Success information above.

Faculty-Specific Information Regarding Canvas

This course section will use Canvas (<https://eagleonline.hccs.edu>) to supplement in-class assignments, exams, and activities.

HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it's built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or

any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

Social Justice Statement

Houston Community College is committed to furthering the cause of social justice in our community and beyond. HCC does not discriminate on the basis of race, color, religion, sex, gender identity and expression, national origin, age, disability, sexual orientation, or veteran status. I fully support that commitment and, as such, will work to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. In this course, we share in the creation and maintenance of a positive and safe learning environment. Part of this process includes acknowledging and embracing the differences among us in order to establish and reinforce that each one of us matters. I appreciate your suggestions about how to best maintain this environment of respect. If you experience any type of discrimination, please contact me and/or the Office of Institutional Equity at 713-718-8271.

HCC Policies and Information

HCC Grading System

HCC uses the following standard grading system:

Grade	Grade Interpretation	Grade Points
A	Excellent (90-100)	4
B	Good (80-89)	3
C	Fair (70-79)	2
D	Passing (60-69), except in developmental courses.	1
F	Failing (59 and below)	0
FX	Failing due to non-attendance	0
W	Withdrawn	0

Grade	Grade Interpretation	Grade Points
I	Incomplete	0
AUD	Audit	0
IP	In Progress. Given only in certain developmental courses. A student must re-enroll to receive credit.	0
COM	Completed. Given in non-credit and continuing education courses.	0

Link to Policies in Catalog and Student Handbook

Here's the link to the HCC Catalog and Student Handbook: <https://catalog.hccs.edu/>
(<https://catalog.hccs.edu/>)

In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- Ability Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)
- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Student Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Student Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

Link to HCC Academic Integrity Statement

<https://www.hccs.edu/student-conduct> (<https://www.hccs.edu/student-conduct>) (scroll down to subsections)

Campus Carry Link

Here's the link to the HCC information about Campus Carry:

<https://www.hccs.edu/campuscarry> (<https://www.hccs.edu/campuscarry>).

HCC Email Policy

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go [to HCC Eagle ID \(https://www.hccs.edu/email\)](https://www.hccs.edu/email) and activate it now. You may also use Canvas Inbox to communicate.

Office of Equal Opportunity and Title IX

Use the following link to access the HCC Office of Institutional Equity, Inclusion, and Engagement:

<https://www.hccs.edu/eo> (<https://www.hccs.edu/eo>).

Ability Services

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including long and short term conditions, mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to <https://www.hccs.edu/accommodations> (<https://www.hccs.edu/accommodations>).

Title IX

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

Oswaldo Gomez, MSW
Director of EEO and Compliance/Title IX Coordinator
Office of Equal Opportunity and Title IX
3100 Main, 7th Floor
Houston, TX 77002

(713) 718-8271

hcc.oeotix@hccs.edu (<mailto:hcc.oeotix@hccs.edu>)

<https://www.hccs.edu/oeotix/> (<https://www.hccs.edu/oeotix/>)

Mandatory Reporters

Under Texas Education Code 51.252 (formerly known as Senate Bill 212), HCC Instructors are mandatory reporters of sexual harassment, dating violence (domestic violence), sexual assault, and stalking. All instructors are required by law to report to the College's Title IX coordinator or Deputy Title IX coordinator all reports disclosed to them relating to sexual harassment, dating violence (domestic violence), sexual assault, and stalking alleged to have been committed by or against a person who was a student enrolled at or an employee of the institution at the time of the incident. Instructors are required by law to include all the information they know about the incident, including the name of the student(s), in the report to the College's Title IX coordinator or deputy Title IX coordinator.

Office of the Dean of Students

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

<https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/> (<https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/>)

Student Success

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as a guide.

Canvas Learning Management System

Canvas is HCC's Learning Management System (LMS), and can be accessed at the following URL:

<https://eagleonline.hccs.edu> (<https://eagleonline.hccs.edu>)

HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it's built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

HCC Online Information and Policies

Here is the link to information about HCC Online classes, which includes access to the required Online Information Class Preview for all fully online classes: <https://www.hccs.edu/online/> (<https://www.hccs.edu/online/>)

Scoring Rubrics, Sample Assignments, etc.

Look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. <https://eagleonline.hccs.edu/> (<https://eagleonline.hccs.edu/>)

Instructor and Student Responsibilities

As your Instructor, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar that will include a description of any special projects or assignments
- Arrange to meet with individual students during office hours, and before and after class as required

As a student, it is your responsibility to:

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams

- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Be aware of and comply with academic honesty policies in the [HCCS Student Handbook](https://www.hccs.edu/studenthandbook) (<https://www.hccs.edu/studenthandbook>).

Copyright Statement

In order to uphold the integrity of the academic environment and protect and foster a cohesive learning environment for all, HCC prohibits the unauthorized use of course materials. Materials shared in this course are based on my professional knowledge and experience as an instructor and are presented in an educational context for the students in the course. Authorized use of course materials is limited to personal study or educational uses. Material should not be shared, distributed, or sold outside the course without permission. Students are also explicitly forbidden in all circumstances from plagiarizing or appropriating course materials. This includes but is not limited to publicly posting quizzes, essays, or other materials. This prohibition extends not only during this course, but after. Sharing of the materials in any context will be a violation of the HCC Student Code of Conduct and may subject the student to discipline, as well as any applicable civil or criminal liability. Consequences for unauthorized sharing, plagiarizing, or other methods of academic dishonesty may range from a 0 on the specified assignment and/or up to expulsion from Houston Community College. Questions about this policy may be directed to me, your instructor, or to the Manager of Student Conduct and Academic Integrity.

Unauthorized Disclosure

"Unauthorized disclosure" occurs when any student provides instructional materials and/or assessments to other students in violation of a clear prohibition by the instructor. Examples include: posting assessment items to online sites such as Chegg or CourseHero; asking exam questions in forums like Reddit or Yahoo Answers; discussions of confidential question using Wechat or GroupMe, etc.

Sensitive or Mature Course Content

In this college-level course, we may occasionally discuss sensitive or mature content. All members of the classroom environment, from your instructor to your fellow students, are expected to handle potentially controversial subjects with respect and consideration for one another's varied experiences and values.

EGLS3

The EGLS³ ([Evaluation for Greater Learning Student Survey System](https://www.hccs.edu/egls3) (<https://www.hccs.edu/egls3>)) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS³ surveys are only available for the Fall and Spring semesters. -EGLS3 surveys are not offered during the Summer semester due to logistical constraints.

<https://www.hccs.edu/egls3> (<https://www.hccs.edu/egls3>)

Housing and Food Assistance for Students

If you are experiencing any hardship related to food, shelter, mental health, or other basic needs areas, please visit the Basic Needs page for resources (<https://www.hccs.edu/cares>). You have the option to take the Basic Needs Questionnaire and ask to be contacted by a counselor for additional assistance or support (<https://www.hccs.edu/basicneeds>). Furthermore, please notify the professor if you are comfortable doing so.

Student Resources

Tutoring

HCC provides free and convenient academic support, in a large variety of subjects, to HCC students in both an online environment and in-person on campus. Tutoring is provided by HCC personnel in order to ensure that it is appropriate. Visit the HCC Tutoring Services website for more information at <https://hccs.edu/tutoring>.

Libraries

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at <https://library.hccs.edu>.

Supplementary Instruction

Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at <https://www.hccs.edu/supplemental-instruction>.

Resources for Students:

<https://www.hccs.edu/covid19students>

Basic Needs Resources:

<https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/>

Student Basic Needs Application:

<https://www.hccs.edu/basicneeds>

COVID-19

Here's the link to the HCC information about COVID-19:

<https://www.hccs.edu/covid-19> (<https://www.hccs.edu/covid-19>).

Instructional Modalities

In-Person (P)

Safe, face-to-face course with scheduled dates and times

Online on a Schedule (WS)

Fully online course with virtual meetings at scheduled dates and times

Online Anytime (WW)

Traditional online course without scheduled meetings

Hybrid (H)

Course that meets safely 50% face-to-face and 50% virtually

Hybrid Lab (HL)

Lab class that meets safely 50% face-to-face and 50% virtually

Course Calendar

Week	Modules	Due Date	Discussion	Quizzes	Programs or Project	Revel Labs	Exams
1	(01GST) Getting Started (02SET) Setup	2/18	X	X	X		
2	(03CH1) Ch1	2/25	X	X		X	
3	(04CH2) Ch2	3/3	X	X		X	

4	(05CH3) Ch3	3/10	X	X	X	X	
	Spring Break						
5	(06CH4) Ch4	3/24	X	X		X	
6	(07CH5) Ch5	4/7	X	X	X	X	
7- ONLINE	Mid-term	4/12- 4/13					X
8	(09CH6) Ch6	4/21	X	X	X	X	
9	(10CH7) Ch7	4/28		X		X	
10	(11CH8) Ch8 (12FEO) Final Exam Overview (13PRO) Project Assignment	5/5	X	X	X		
11	Final Exam	5/8- 5/9					X

Additional Information

Computer Programming Information

Houston Community College's Computer Programming offers Associate of Applied Science (AAS) degrees, an Associate of Arts (AA) degree, an Associate of Science (AS) degree, and various certificates that help students develop the knowledge, communication and creative skills, critical thinking, and technical competencies required in the modern workplace.

Visit the [Computer Programming website \(https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/computer-programming/\)](https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/computer-programming/) for more information about our programs.

Award Types

- Associate in Science
 - Computer Information Systems
- Associate in Arts
 - Computer Science
- Associate of Applied Science
 - Cloud Computing and Application Development
 - Application Development (in C++, Java, Python, Swift, C#)
- Certificate Level 2
 - Database Administrator
 - Mobile Application Developer
 - Web Application Developer

Student Organizations

- [Computer Science Association \(https://hccs.presence.io/organization/computer-science-association/\)](https://hccs.presence.io/organization/computer-science-association/) (CSA)
- [Women in Technology \(https://hccs.presence.io/organization/women-in-technology/\)](https://hccs.presence.io/organization/women-in-technology/) (WIT)

Process for Expressing Concerns about the Course

If you have concerns about any aspect of this course, please reach out to your instructor for assistance first. If your instructor is not able to assist you, then you may wish to contact the Department Chair.

- Ancelin (Anci) Shah
- [anci.shah@hccs.edu \(mailto:anci.shah@hccs.edu\)](mailto:anci.shah@hccs.edu)
- 713-718-7939