HOUSTON CITY COLLEGE

**Instructional Services · Digital and Information Tech · Computer Programming**

# Cloud Computing I-17009

## ITSE-2473

F8A 2025 Section 0002 4 Credits 08/18/2025 to 10/12/2025 Modified 08/17/2025

## Our Vision

Houston Community College will deliver relevant, high-quality education and training, ensuring success for all students, our community, economy and beyond.
https://www.hccs.edu/about-hcc/ (https://www.hccs.edu/about-hcc/)

# Course Meetings

## Course Modality

Online Anytime (WW)

## Meeting Days

Optional Weekly Meeting - Mondays

## Meeting Times

**6:00 PM – 9:00 PM Central Time (CT)**
(*Students unable to attend can schedule appointments for support*)

## Meeting Location

**Online via Webex**
Meeting link will be available in Webex Meeting tab

# Welcome and Instructor Information

## Instructor: Mrs. Spandana Doddi

**Email:** spandana.doddi@hccs.edu

## What's Exciting About This Course

This course is exciting because...

- Direct **hands-on labs in AWS Academy,** you will not just learn concepts, but also practice in a real cloud environment.
- Exposure to **in-demand AWS services** like S3, DynamoDB, Lambda, and API Gateway that are widely used in industry.
- A strong foundation in **cloud-native development**, setting you up for advanced skills in microservices, DevOps, and serverless architectures.

# My Personal Welcome

Hello everyone,

My name is **Spandana Doddi**, and I am excited to be your instructor for **AWS Cloud Developer I** this semester. I hold a Master's degree in Information Technology and bring over a decade of experience in the IT industry, with a strong focus on cloud computing, application development, and infrastructure solutions. I have had the opportunity to collaborate with global clients such as Nielsen, Marriott, and Daiichi Sankyo, where I worked on cloud migrations, serverless solutions, API development, and secure application deployments in AWS.

In this course, we will be focusing on the **first half of the AWS Academy Cloud Developing curriculum (Modules 1–7)**. These modules will give you hands-on experience with the core building blocks of cloud development, including:

- Using the **AWS SDKs and CLI** to interact with AWS services
- Building and securing storage solutions with **Amazon S3**
- Managing authentication and authorization with **IAM**
- Developing applications with **DynamoDB** (NoSQL databases)
- Designing and deploying **REST APIs using API Gateway**
- Creating **serverless applications with AWS Lambda**

By the end of Cloud Developer I, you will have both the technical knowledge and hands-on practice to start developing scalable, secure, and event-driven applications on AWS. This foundation will prepare you for **Cloud Developer II**, where we will dive into more advanced topics such as containers, CI/CD, and messaging services.

# Preferred Method of Contact

Please use the **Inbox icon** in Canvas to message me directly. If Canvas is unavailable, you can reach me at **spandana.doddi@hccs.edu**.

## Office Hours

Mondays, 6:00 – 9:00 PM CT (link via Canvas)
Online Webex

If you are not able to make it during the assigned hours, reach out to me to fix a time that works for both of us.

# Course Overview

## Course Description

***(4 Credits | 96 hours per semester)*** The course covers the fundamentals of building IT infrastructure on cloud platforms (e.g. Amazon AWS), including identifying cloud-based servers and service types; designing and implementing virtual private clouds including instances, subnets, gateways, and end-points; leveraging cloud services for scalability, reliability, and high availability; securing cloud environments with different security layers; and exploring how to increase performance and reduce cost.

## Prerequisites

(1) ITNW 1425 or ITCC 1414 , (2) ITNW 1313, and (3) ITSE 2402.

*Please carefully read and consider the repeater policy in the HCCS Student Handbook. (http://www.hccs.edu/resources-for/current-students/student-handbook/)*

## 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)

ITSE 2473 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 programming assignments that involve analyzing a problem, designing a solution to solve the problem, and implementing the solution including testing it against problem specifications and debugging it.
- ***Communication Skills***: Students will demonstrate effective development, interpretation and expression of ideas through written, oral, and visual communication by analyzing the merits and drawbacks of alternative approaches to solving problems through online or in-class discussions and/or answering questions on quizzes and exams.
- ***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/

## Course Student Learning Outcomes (CSLOs)

Upon completion of ITSE 2473, the student will be able to:

- Identify and describe the benefits of cloud computing and virtualization
- Understand the design of secure, reliable, high-performing, and cost-efficient system
- Compare and measure the benefits of various compute, storage, database, and networking resources to improve performance
- Identify the design patterns and architectural options applied in a variety of use cases
- Design and implement a solution based on high availability, fault tolerance, and scalability without single points of failure
- Explore database services and understand the advantages of databases solution on-cloud vs on-premises
- Compare SQL with NoSQL databases and determine the appropriate problem domain for each
- Describe Load balancing, Infrastructure as Code, automation, redundancy, single points of failure, high availability, fault tolerance, and scalability
- Discern the various Identity Services and work with Identity & Access Management (IAM)

## Learning Objectives

Learning Objectives for each CSLO are mapped to course material within the Canvas course.

# Departmental Practices and Procedures

## Department Specific 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.*
- Attend class in person and/or online
- Check your Canvas and HCC email regularly (2-3 times a week; daily if you sent in a question)
- 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/)

## 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.

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 work/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.

# Instructional Materials and Resources

## Instructional Materials

The HCC Online Bookstore (https://hccs.bncollege.com/shop/hccs-central/page/find-textbooks) provides searchable information on textbooks for all courses. Check with your instructor before purchasing textbooks because the book might be included in your course fees.

This course is delivered through the **AWS Academy platform**, which provides **free access to all required instructional content** for students enrolled in this course.

You will receive an invitation to join AWS Academy via your **HCC student email** during the first week of class. Please **accept the invitation promptly**, as all course materials, modules, labs, and the practice certification exam are accessed through the AWS Academy portal.

All additional instructions and links will be posted in **Canvas**.

**No Additional Textbook Required**

There is **no need to purchase a textbook** for this course. All reading materials, labs, and exam prep content are included in the AWS Academy platform provided by HCC.

# ✔ Course Requirements

## Assignments, Exams, and Activities

| Type | Weight | Topic | Notes |
|---|---|---|---|
| Quizzes | 20% | AWS Academy knowledge checks | AWS has Knowledge checks at the end of every module that has Multiple choice and true/false questions based on the content covered |
| Discussions | 10% | Opportunity to interact with peers | Students will respond to scenario-based prompts and interact with peers. |
| Lab Assignments | 40% | Hands-on activity | AWS has multiple labs among the modules. |
| Mid Exam | 15% | HCC Mid term | Mid Term Will be conducted at the HCC Canvas. Timed quiz (auto-graded) covering first half of course content. |
| Final Exam | 15% | HCC Final Exam | Timed, auto-graded exam to assess the content covered in the course. Final Exam will be conducted through HCC Canvas. |
| Extra Credit | 5% | Instructor provided | Optional reflections, assignments provided by instructor. Keep an eye out for announcements regarding the extra credit. |

## Grading Formula

| Grade | Range | Notes |
|---|---|---|
| A | > 90% | Excellent: Demonstrates mastery of all concepts and consistent engagement |
| B | 80% to 90 % | Good: Strong understanding with minor gaps |
| C | 70% to 80 % | Satisfactory: Meets minimum requirements |
| D | 60% to 70% | Needs Improvement: Below expectations, limited understanding |
| F | < 60% | Failing: Does not meet course requirements |

# ✱ 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

All assignments (Canvas Quizzes/Discussions, Revel Labs, and Programs/Project are due on/before 11:59pm on the day they are due (See Course Calendar below for due dates)

You must contact instructor with a doctor's note or other valid documentation. Without that information, the instructor does not guarantee that late assignments will be accepted.

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 ASSIGNMENT/EXAM GRADES will be recorded as zero.

## Academic Integrity

All submitted work must be your own. Academic dishonesty includes but is not limited to:

- **Cheating** on exams or quizzes
- **Plagiarizing** lab work or discussion posts
- **Collusion** or unauthorized collaboration

Violations will result in a **grade penalty and a referral to the Dean of Student Services**

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

Although this is an **Online Anytime (WW)** course, **consistent participation is required**.

- You are expected to log in regularly, complete weekly activities, and stay on schedule with labs and quizzes.
- **Failure to engage in coursework during the first week** may result in being reported as a "no-show" for administrative withdrawal.
- Optional **live Webex sessions** are held Mondays from 6–9 PM CT. These are recorded when possible for later viewing.

# Student Conduct

All students are expected to:

1. Be respectful and professional in all communication (Canvas, Webex, email).
2. Avoid inappropriate or offensive language or behavior in online discussions.
3. Focus on coursework and avoid distractions during optional live sessions.

Disruptive or disrespectful behavior may result in removal from Webex sessions and referral to the Dean of Student Services.

# Instructor's Course-Specific Information

- You will receive feedback on assignments and quizzes typically within **3–5 business days**.
- Quizzes are auto-graded; written responses (e.g., discussions) are graded manually with comments when appropriate.
- **Weekly reminders** and module announcements will be posted in Canvas every Monday morning.

# Devices

You will need access to a **reliable internet connection** and a **computer** capable of accessing Canvas and AWS Academy (desktop/laptop is preferred over mobile).
If you do not have access to a personal device, HCC provides open labs on campus. Check the HCC Open Lab locations.

# Faculty Statement about Student Success

Success in this course depends on **staying organized, practicing consistently, and reaching out early for help**. Because this is an **accelerated 8-week class**, it is important to keep pace from the very beginning.

My Top Recommendations:

- **Start each module early**
  Each week covers 1–2 modules with labs. Begin early so you have time for labs, quizzes, and troubleshooting.
- **Log in daily**
  Short, consistent study sessions (30–60 minutes) are more effective than cramming. AWS skills build on practice.
- **Use the AWS Academy platform fully**
  Complete every **module, quiz, and lab**. These are hands-on activities that mirror real-world cloud development tasks.
- **Stay ahead of schedule**
  Falling behind even one week can feel overwhelming in this course. Aim to stay slightly ahead whenever possible.
- **Attend optional Webex sessions**
  These live sessions are a chance to ask questions, see demos, and prepare for the **Midterm (Week 4)** and **Final Exam (Week 8)**.
- **Ask for help early**
  If you are stuck, email me or request a 1-on-1 session. Don't wait until assignments pile up.
- **Connect concepts to real-world use**
  Cloud services (like S3, IAM, DynamoDB, and Lambda) may feel abstract at first. With hands-on labs and examples, you will see how developers use them to build real applications.

# Faculty-Specific Information Regarding Canvas

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

You are expected to:

- Check Canvas **at least twice a week** for announcements and deadlines.
- Submit **all assignments** through Canvas and AWS Academy portal (See instructor instructions).
- Use the **Inbox tool in Canvas** to communicate with me.
- Review **rubrics** for discussions, labs, and assignments before submission.
- Complete **quizzes and exams in Canvas**, unless stated otherwise.

**Scoring rubrics** and **sample lab formats** will be provided in the relevant module to guide your submissions. You will also find **AWS Academy access instructions** in Week 1.

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.

## Statement Regarding Classroom Environment

I am committed to fostering an **inclusive, respectful, and encouraging learning space** for everyone in this course. Even though we're not in a physical classroom, your contributions and presence in discussions, Webex sessions, and emails matter deeply.

Diverse backgrounds, perspectives, and experiences enhance our learning journey. I encourage open communication and mutual respect in all course interactions.

If you experience or observe anything that hinders this inclusive environment, please reach out to me directly. You may also contact the **Office of Equal Opportunity and Title IX at 713-718-8271**.

Please remain professional in all online spaces and avoid unrelated use of social media, texting, or disruptive behavior during optional Webex sessions.

# HCC Policies and Information

## HCC Grading System

HCC uses the following standard grading system:

| Grade | Grade Interpretation | Grade Points |
|---|---|---|
| A | Excellent (90-100) | 4 |

| Grade | Grade Interpretation | Grade Points |
|---|---|---|
| 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 |
| 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) 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 Equal Opportunity and Title IX:

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

## 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:

Sandra Jacobson, J.D., M.Ed., SHRM-SCP
Interim Director of EEO and Compliance/Title IX and ADA/Section 504 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)

# 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 EGLS$^3$ (Evaluation for Greater Learning Student Survey System (https://hccs.campuslabs.com/courseeval/)) will be available for most courses near the end of the term but before finals. Results are confidential and will be available to faculty and division chairs after the end of the term, after grades are due. Confidential means that responses to the survey will not be associated with your identity when provided to the faculty.

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 (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 (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 (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 (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 (https://www.hccs.edu/supplemental-instruction)

### Resources for Students:

https://www.hccs.edu/covid19students (https://www.hccs.edu/covid19students)

### Basic Needs Resources:

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

### Student Basic Needs Application:

https://www.hccs.edu/basicneeds (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

HCC offers many options for learning modalities and information may be obtained at https://www.hccs.edu/campaigns/college-your-way/ (https://www.hccs.edu/campaigns/college-your-way/).

All students, regardless of their selected learning options, will still have access to the support available to help with their success, including tutoring, student life, basic needs support, career and employment services, counseling and ability services, and supplemental instruction. HCC also provides financial aid options.

### In-Person (P)

In-Person gives students the opportunity to participate in class in person.

### Online on a Schedule (WS)

Online on a Schedule allows students to take classes online, but at scheduled dates and times. Instead of visiting the campus for class, students log into the class online at the specified time they selected during registration. This gives students a safe and flexible learning option that allows for more interaction with professors and classmates without coming to campus. Access to a computer and WIFI are necessary to complete this class successfully.

### Online Anytime (WW)

Online Anytime gives students the flexibility to complete coursework throughout the semester at times that works best for them. When a student enrolls in Online Anytime at the beginning of a semester, the course instructor will share pre-determined deadlines and requirements, along with the syllabus and full details of all assignments that must be completed to successfully finish the course. This option- most like a traditional online course -gives students the flexibility of completing coursework without visiting the campus. Access to a computer and WIFI is necessary to complete this class successfully.

### Hybrid (H)

Hybrid provides students the opportunity to attend a lecture class meeting half-time in person and half-time remotely.

### Hybrid Lab (HL)

Hybrid Lab-Based courses will be conducted in person and remotely, allowing HCC students access to essential hands-on, skills-based learning experiences needed for success.

## 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.

## Our Vision

Houston Community College will deliver relevant, high-quality education and training, ensuring success for all students, our community, economy and beyond.

# Course Calendar

## Syllabus Modifications

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

| Week | Dates | Topics Covered | Deliverables Due Sunday | Due Date |
|---|---|---|---|---|
| Week 1 | Aug 18 – Aug 24 | Module 1: Welcome to AWS Academy Cloud Developing | Intro Discussion Post | 24-Aug-25 |
| | | Module 2: Introduction to Developing on AWS | Quiz | |
| | | | Hands on Lab | |
| Week 2 | Aug 25 – Aug 31 | Module 3: Developing Storage Solutions | Quiz | 31-Aug-25 |
| | | | Hands on Lab | |
| | | Module 4: Securing Access to Cloud Resources | Discussion: Cloud Security | |
| Week 3 | Sep 01 – Sep 07 | Module 4: Securing Access to Cloud Resources | Quiz | 7-Sep-25 |
| | | Module 5: Developing Flexible NoSQL Solutions | Hands on Lab | |

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|---|---|---|---|---|
| Week 4 | Sep 08 – Sep 14 | Module 5: Developing Flexible NoSQL Solutions | Reflection | 14-Sep-25 |
| | | | Quiz | |
| | | **Midterm Prep and Exam (Modules 1-5)** | **Mid-term Exam** | |
| Week 5 | Sep 15 – Sep 21 | Module 6: Developing REST APIs | Hands on Lab | 21-Sep-25 |
| Week 6 | Sep 22 – Sep 28 | Module 6: Developing REST APIs | Quiz | 28-Sep-25 |
| | | Module 7: Developing Event-Driven Serverless Solutions | Hands on Lab | |
| Week 7 | Sep 29 - Oct 5 | Module 7: Developing Event-Driven Serverless Solutions | Quiz | 5-Oct-25 |
| | | Final Exam Review | Modules 1-7 Prep | |
| Week 8 | Oct 6 - Oct 12 | **HCC Final Exam** | **Modules 1 – 7 Prep & Exam** | 12-Oct-25 |

# 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/) 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) (CSA)
- 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)
- 713-718-7939