

Computer Information Systems, A.A.S

HEGIS: 5101.00

PROGRAM CODE: 01055

PROGRAM DIRECTOR: Dr. David Salb

DEPARTMENT: MATHEMATICS AND COMPUTER SCIENCE

The Computer Information Systems AAS degree exposes students to the field of information technology and provides the technical skills and business knowledge for entry-level positions in the field. The degree examines how modern hardware and software systems are organized and work together by teaching students how to relate to and utilize computer systems in solving real-world problems. Courses cover a broad range of topics from coding in many languages, such as Java and C++, to data base design and computer architecture.

The curriculum presented here applies to students who started the major in Fall 2026 or Spring 2027. If you enrolled as a matriculant prior to that, please see the *College Catalog* for the year you started the major as a matriculant for the curriculum requirements that apply to you.

Consultation with the Program Advisor is required.

Degree Maps:

[Degree Map for Computer Information Systems, A.A.S. - MAT 9010 Placement](#)

[Degree Map for Computer Information Systems, A.A.S. - MAT 9B0 or MAT 900 Placement](#)

[Degree Map for Computer Information Systems, A.A.S. - MAT 1400 Placement](#)

Your Degree Map contains the suggested term-by-term course sequence for your academic path towards graduation.

To ensure successful and timely completion of your degree, it is recommended that you meet with your academic advisor to discuss your unique map.

Please note some courses *may* only be offered once an academic year.

Program Learning Outcomes:

Upon successful completion of the Computer Information Systems degree program requirements, graduates will:

1. analyze, design, implement, and understand computer based solutions and apply them to real world applications
2. demonstrate the ability to maintain current knowledge of emerging and changing information technology

3. demonstrate proficiency in programming concepts and techniques by creating logically sound and efficient algorithms
 4. demonstrate the ability to analyze and troubleshoot computer problems and identify appropriate solutions
 5. demonstrate the ability to identify computer techniques, skills, and tools to meet end user needs
 6. comprehend the structure of a computing system, design of its basic components, and interaction of hardware and software
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College Requirements:

English and Math proficient as determined by the CUNY Proficiency Index, unless otherwise exempt, or successful completion of any required developmental course(s).

Civic Engagement Experiences:

One (1) Civic Engagement experience satisfied by Civic Engagement Certified or Civic Engagement Component course or approved outside activity.

Writing Intensive Requirement:

One (1) Writing Intensive Course in any discipline is required.

Required Core (4 Courses, 12 Credits):

When Required Core Courses are specified for a category, they are required for the major

- ENG 1200 - Composition I 3 Credit(s)
 - ENG 2400 - Composition II 3 Credit(s)
 - **Mathematical & Quantitative Reasoning Course*** ^{1, 2}
 - MAT 9010 - Introduction to Mathematics with College Algebra 3 Credit(s) [^] **or**
 - MAT 9B0 - College Algebra for STEM Majors 3 Credit(s) [^] **or**
 - MAT 900 - College Algebra 3 Credit(s) [^] **or**
 - MAT 1400 - Analytic Geometry and Pre-Calculus 3 Credit(s) [^]
 - **Life & Physical Sciences Course 3 Credit(s)**
-

Flexible Core (3 Courses, 9 Credits):

When Flexible Core courses are specified for a category, they are required for the major.

Select **one (1)** from Groups A to C for a total of **three (3)** credits. Groups D and E are satisfied by the courses shown (6 credits). ***Each Course Must be in a Different Discipline***

A. World Cultures and Global Issues Designated Course

B. U.S. Experience in its Diversity Designated Course

C. Creative Expression Designated Course

D. Individual and Society Designated Course

- CIS 100 - Digital Society 3 Credit(s)

E. Scientific World Designated Course* ¹

- MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics 3 Credit(s) ^ **or**
 - MAT 1500 - Calculus I 3 Credit(s)^
-

Major Requirements (11 Courses, 39 Credits):

- CP 500 - Introduction to Computer Programming 4 Credit(s)
- CP 2100 - C++ Programming 1 4 Credit(s)
- CP 2200 - C++ Programming 2 4 Credit(s)
- CIS 1200 - Introduction to Operating Systems 3 Credit(s)
- CIS 1500 - Applied Computer Architecture 3 Credit(s)
- CIS 3100 - Introduction to Database 3 Credit(s)
- MAT 2200 - Business Statistics 3 Credit(s) **or**
 - BA 2200 - Business Statistics 3 Credit(s)

AND

- BA 1100 - Fundamentals of Business 3 Credit(s)

Select three (3) courses from the following (12 credits)

- CP 6200 - Java Programming 2 4 Credit(s)
 - CIS 2100 - Introduction to Web Page Development 4 Credit(s)
 - CIS 2200 - HTML Authoring and Javascript 4 Credit(s)
 - CIS 3200 - Advanced Database Programming 4 Credit(s)
 - CIS 4500 - Network Server Administration 4 Credit(s)
-

Electives:

0 sufficient to meet required total of 60 credits

Notes:

* This program has a waiver to require particular courses in the Common Core, otherwise more than the minimum credits for the degree may be necessary.

¹ Students that have an initial math placement of MAT 1400 are required to complete MAT 1400 to fulfill the Required Core: Mathematical & Quantitative Reasoning requirement and MAT 1500 to fulfill the Flexible Core: Scientific World requirement.

² Students that have an initial math placement of MAT 1500 are required to consult with the chairperson of the Department of Mathematics and Computer Science for course substitutions that are consistent with the educational goals of the program.

[^] Depending on Math placement, students may be required to complete MAT 9010, **or** MAT 9B0, **or** MAT 900, **and** MAT 1400B; OR MAT 1400 and MAT 1500.

Total Credits: 60

Degree InformationCatalog Year: **2026 - 2027**Plan: **Computer Information Systems AAS**Sub Plan: **None**Required Credits: **60****General Requirements**Req GPA: **2.0**Req Residential Credits: **30**Req Pathways Credits: **21**Req Civic Engagement: **1**Req Writing Intensive: **1****1**

Session A

COURSE	CRS
ENG 1200	3
MAT 9010 ¹ (NEED MIN. GRADE C)	3
Choose 1: Flexible Core - One course from Different Group & Different Discipline GROUP A - C	3
CIS 100	3

Session B

COURSE	CRS
MAT 1400 ¹	3

2

Session A

COURSE	CRS
CP 500 ¹ (NEED MIN. GRADE C)	4
ENG 2400	3
MAT/BA2200 ¹	3
LIFE & PHYSICAL SCIENCES	3

Session B

COURSE	CRS

3

Session A

COURSE	CRS
CIS 1200 ⁵	3
CIS 1500 ⁵ (NEED MIN. GRADE C)*	3
CIS 3100 ²	3
CP 2100 ²	4

Session B

COURSE	CRS
BA 1100 or BA 1200	3

4

Session A

COURSE	CRS
CP 2200 ²	4
Select One: CP 6200 ² , CIS 2100 ⁵ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4
Select One: CP 6200 ² , CIS 2100 ⁵ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4
Select One: CP 6200 ² , CIS 2100 ⁵ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4

Session B

COURSE	CRS

NOTE: The term-by-term course sequence takes into account necessary Prerequisites, Corequisites, and Pre-/Co-requisites

NOTE: Select ONE (1) WRITING INTENSIVE course & ONE (1) CIVIC ENGAGEMENT course. Some courses meet BOTH requirements, see CUNYfirst to determine course status

SEMESTER CRS: 15

SEMESTER CRS: 13

SEMESTER CRS: 16

SEMESTER CRS: 16

CAREER AND TRANSFER MILESTONES**1**

CAREER & TRANSFER EXPLORATION ACTIVITIES	Done
<u>Claim your Handshake Account (Kingsborough)</u>	
<u>Join one of the following Student Clubs, Computer Science Club, Gaming Culture Club, Animation Club, or Entrepreneurship Club, to build your network and skills.</u>	
<u>Research and explore desired career pathway via career coach. Including researching Baccalaureate Programs and Complete a Transfer Plan.</u>	
<u>Review the proactive steps for the field of Computer Information Systems: Explore Career Interests.</u>	
<u>Draft a Basic Resume with assistance from the Career Center.</u>	
<u>Review the CUNY Research Scholars Program (CRSP) at KCC.</u>	

2

CAREER & TRANSFER EXPLORATION ACTIVITIES	Done
<u>Draft a Basic Cover Letter with assistance from the Career Center.</u>	
<u>Create your LinkedIn profile</u>	
<u>Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.</u>	
<u>Engage with the in-demand skills: Begin learning programming or data (e.g. Python or basic analysis) Explore AI and data concepts through coursework or online tools.</u>	
<u>Review the proactive steps for the field of Computer Information Systems: Build Projects.</u>	
<u>Join CUNY Research Scholars Program (CRSP) at KCC.</u>	
<u>Attend Transfer Events</u>	

3

CAREER & TRANSFER EXPLORATION ACTIVITIES	Done
<u>Explore Internship Opportunities through CUNY Career Launch</u>	
<u>Career Planning - Research and Join Professional Organization(s)</u>	
<u>Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.</u>	
<u>Engage with in-demand skills: Use programming and data skills in a project (e.g. small app, dataset analysis). Practice problem-solving using real-world or class-based assignments.</u>	
<u>Review the proactive steps for the field of Computer Information Systems: Apply for internships to gain experience.</u>	
<u>Find a Mentor to Check in with Periodically: Establish a relationship with someone who can provide guidance and advice related to your career goals.</u>	
<u>Planning for References (Job & Transfer) - can be professors, campus connections, internship positions, or others who are aware of your interests, abilities, skills, and work habits.</u>	
<u>Start the transfer process to a Baccalaureate program (if applicable).</u>	

4

CAREER & TRANSFER EXPLORATION ACTIVITIES	Done
<u>Take advantage of events offered by campus Career and Professional Development offices to perfect your job search and sharpen your interview and employability skills. Update your LinkedIn profile and resume with new certifications, experiences, and skills.</u>	
<u>Continue to explore Internship opportunities.</u>	
<u>Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.</u>	
<u>Engage with in-demand skills: Complete a project that shows computational thinking and technical ability. Apply these skills in internships, research, or portfolio.</u>	
<u>Join CUNY Research Scholars Program (CRSP) at KCC.</u>	
<u>Accept your offer to Enroll in a Baccalaureate program (if applicable).</u>	
<u>Complete CUNY Cap and Gown Survey</u>	

NOTE: Explore the highlighted Milestones by following the link to the Career-Infused Degree Map web page or relevant linked page

Important Notes:

- Many courses have a grade based prerequisite. It is crucial to review the College Catalog for all course prerequisite.
- Consultation with the Department of Mathematics and Computer Science is HIGHLY recommended to ensure that the student selects the correct courses.

¹ Course is usually offered every semester² Course is usually offered every Fall and Spring semesters³ Course is usually offered every Fall semester (occasionally offered also in Spring semester)⁴ Course is usually offered every Spring, Winter, and Summer semester⁵ Course is usually offered every Fall, Spring, and Winter semesters⁶ Course is occasionally offered in Fall semester⁷ Course is usually offered every Fall semester⁸ Course is occasionally offered

Degree Information

Catalog Year: **2026 - 2027**
Plan: **Computer Information Systems AAS**
Sub Plan: **None**
Required Credits: **60**

General Requirements

Req GPA: **2.0**
Req Residential Credits: **30**
Req Pathways Credits: **21**
Req Civic Engagement: **1**
Req Writing Intensive: **1**

1		2		3		4	
Session A		Session A		Session A		Session A	
COURSE	CRS	COURSE	CRS	COURSE	CRS	COURSE	CRS
ENG 1200	3	CIS 1200 ⁵	3	CP 2200 ²	4	BA 1100	3
CP 500 ¹ (NEED MIN. GRADE C)	4	CIS 1500 ⁵ (NEED MIN. GRADE C)*	3	Select One: CP 6200 ² , CIS 2100 ⁵ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4	Select One: CP 6200 ² , CIS 2100 ⁵ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4
MAT 980 or MAT 900 ¹ (NEED MIN. GRADE C)	3	CIS 3100 ²	3	ENG 2400	3	Select One: CP 6200 ² , CIS 2100 ⁵ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4
CIS 100	3	CP 2100 ²	4	MAT/BA2200 ¹	3	Choose 1: Flexible Core - One course from Different Group & Different Discipline GROUP A - C	3
Session B		Session B		Session B		Session B	
COURSE	CRS	COURSE	CRS	COURSE	CRS	COURSE	CRS
MAT 1400 ¹	3	LIFE & PHYSICAL SCIENCES	3				
NOTE: The term-by-term course sequence takes into account necessary Prerequisites, Corequisites, and Pre-/Co-requisites NOTE: Select ONE (1) WRITING INTENSIVE course & ONE (1) CIVIC ENGAGEMENT course. Some courses meet BOTH requirements, see CUNYfirst to determine course status							
SEMESTER CRS: 16		SEMESTER CRS: 16		SEMESTER CRS: 14		SEMESTER CRS: 14	

CAREER AND TRANSFER MILESTONES

1		2		3		4	
CAREER & TRANSFER EXPLORATION ACTIVITIES	Done	CAREER & TRANSFER EXPLORATION ACTIVITIES	Done	CAREER & TRANSFER EXPLORATION ACTIVITIES	Done	CAREER & TRANSFER EXPLORATION ACTIVITIES	Done
<u>Claim your Handshake Account (Kingsborough).</u>		Draft a Basic Cover Letter with assistance from the Career Center.		<u>Explore Internship Opportunities through CUNY Career Launch</u>		Take advantage of events offered by campus Career and Professional Development offices to perfect your job search and sharpen your interview and employability skills. Update your LinkedIn profile and resume with new certifications, experiences, and skills.	
<u>Join one of the following Student Clubs, Computer Science Club, Gaming Culture Club, Animation Club, or Entrepreneurship Club, to build your network and skills.</u>		<u>Create your LinkedIn profile</u>		<u>Career Planning - Research and Join Professional Organization(s)</u>		Continue to explore Internship opportunities.	
<u>Research and explore desired career pathway via career coach. Including researching Baccalaureate Programs and Complete a Transfer Plan.</u>		<u>Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.</u>		<u>Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.</u>		<u>Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.</u>	
<u>Review the proactive steps for the field of Computer Information Systems: Explore Career Interests.</u>		<u>Engage with the in-demand skills: Begin learning programming or data (e.g., Python or basic analysis) Explore AI and data concepts through coursework or online tools.</u>		<u>Engage with in-demand skills: Use programming and data skills in a project (e.g. small app, dataset analysis). Practice problem-solving using real-worked or class-based assignments.</u>		<u>Engage with in-demand skills: Complete a project that shows computational thinking and technical ability. Apply these skills in internships, research, or portfolio.</u>	
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		<u>Attend Transfer Events</u>		Planning for References (Job & Transfer) - can be professors, campus connections, internship positions, or others who are aware of your interests, abilities, skills, and work habits.		Complete CUNY Cap and Gown Survey	
NOTE: Explore the highlighted Milestones by following the link to the Career-Infused Degree Map web page or relevant linked page							

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Degree Information

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Plan: **Computer Information Systems AAS**

Sub Plan: **None**

Required Credits: **60**

General Requirements

Req GPA: **2.0**

Req Residential Credits: **30**

Req Pathways Credits: **21**

Req Civic Engagement: **1**

Req Writing Intensive: **1**

1		2		3		4	
Session A		Session A		Session A		Session A	
COURSE	CRS	COURSE	CRS	COURSE	CRS	COURSE	CRS
ENG 1200	3	CP 500 ¹ (NEED MIN. GRADE C)	4	CIS 1200 ⁵	3	CP 2200 ²	4
MAT 1400 ¹ (NEED MIN. GRADE C)	3	ENG 2400	3	CIS 1500 ⁵ (NEED MIN. GRADE C)*	3	Select One: CP 6200 ² , CIS 2100 ³ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4
MAT 1000 ^{1**}	3	MAT 1500 ¹	3	CIS 3100 ²	3	Select One: CP 6200 ² , CIS 2100 ³ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4
CIS 100	3	LIFE & PHYSICAL SCIENCES	3	CP 2100 ²	4	Select One: CP 6200 ² , CIS 2100 ³ , CIS 2200 ² , CIS 3200 ² , or CIS 4500 ^{2*}	4
Session B		Session B		Session B		Session B	
COURSE	CRS	COURSE	CRS	COURSE	CRS	COURSE	CRS
MAT/BA2200 ¹	3	Choose 1: Flexible Core - One course from Different Group & Different Discipline GROUP A - C	3				

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SEMESTER CRS: 16

SEMESTER CRS: 13

SEMESTER CRS: 16

CAREER AND TRANSFER MILESTONES

1		2		3		4	
CAREER & TRANSFER EXPLORATION ACTIVITIES	Done	CAREER & TRANSFER EXPLORATION ACTIVITIES	Done	CAREER & TRANSFER EXPLORATION ACTIVITIES	Done	CAREER & TRANSFER EXPLORATION ACTIVITIES	Done
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Join one of the following Student Clubs, Computer Science Club, Gaming Culture Club, Animation Club, or Entrepreneurship Club, to build your network and skills.		Create your LinkedIn profile		Career Planning - Research and Join Professional Organization(s)		Continue to explore Internship opportunities.	
Research and explore desired career pathway via career coach. Including researching Baccalaureate Programs and Complete a Transfer Plan.		Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.		Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.		Attend Professional Development Events and Workshops, consider networking mixers, AI/tech meetups, and AI and career-boosting tech talks.	
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		Attend Transfer Events		Planning for References (Job & Transfer) - can be professors, campus connections, internship positions, or others who are aware of your interests, abilities, skills, and work habits.		Complete CUNY Cap and Gown Survey	
				Start the transfer process to a Baccalaureate program (if applicable).			

NOTE: Explore the highlighted Milestones by following the link to the Career-infused Degree Map web page or relevant linked page

1. Many courses have a grade based prerequisite. It is crucial to review the College Catalog for all course prerequisite.

2. Consultation with the Department of Mathematics and Computer Science is HIGHLY recommended to ensure that the student selects the correct courses.

** Students with an initial Math Placement of MAT 1400 will be granted a course substitution to complete MAT 1000 in place of BA 1100.

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