

**ACADEMIC PROGRAM ARTICULATION AGREEMENT BETWEEN
THE COLLEGE OF SOUTHERN MARYLAND
AND
MORGAN STATE UNIVERSITY
REGARDING TRANSFER FROM
ASSOCIATE OF SCIENCE DEGREE IN COMPUTER SCIENCE
TO
BACHELOR OF SCIENCE DEGREE IN COMPUTER SCIENCE**

This Academic Program Articulation Agreement (“Agreement”) is entered into by and between The College of Southern Maryland (the “Sending Institution”) and Morgan State University, an agency and instrumentality of the State of Maryland located at 1700 E. Cold Spring Lane, Baltimore, MD 21251 (the “Receiving Institution”) (collectively, the “Institutions”) to facilitate the transfer of academic credits from the Associate of Science in Computer Science program at the College of Southern Maryland, HEGIS 4980, CIP 498001 for the completion of the Bachelor of Science in Computer Science program at Morgan State University, HEGIS 0701, CIP 070100 (the “Program(s)”).

A. Qualifying Students

This Agreement pertains to the transfer of qualifying students (“Qualifying Students”), *i.e.*, those students who:

1. Have successfully completed the Associates of Science in Computer Science degree program at the Sending Institution;
2. Are enrolled in the Sending Institution, in good standing; and
3. Are accepted for admission to the Receiving Institution
4. Are transferring in 12 – 23 credits, must have earned a cumulative 2.0 GPA and meet SAT requirements. Those who are transferring in 24 or more credits, must have earned a cumulative 2.0 GPA.

B. Responsibilities of the Institutions

The Institutions agree to implement the transfer of Qualifying Students in accordance with all applicable laws, regulations, Morgan State University’s Transfer Student Policy and the following requirements and protocols:

1. A Qualifying Student may transfer from the Sending Institution into the Receiving Institution for the completion of the Program.
2. Courses that the Receiving Institution will accept credits for towards completion of the Program are included in Appendix I-Course by Course Articulations.

3. A maximum of 70 credit hours from the Sending Institution or another public institution of higher education will be allowed towards fulfillment of the minimum one hundred and twenty (120) credit hours required for baccalaureate completion. The maximum number of credits that will be accepted by Morgan State University toward degree requirements from non-direct classroom instruction (including College Level Examination Program (CLEP), Advanced Placement (AP), International Baccalaureate (IB), and other select nationally recognized standardized examination scores, and other four-year institutions) is ninety (90) credits. If the course is evaluated by Sending institution and applied to the Associates degree or official transcript, the student must submit the official score report to be evaluated by Morgan State University, and credit will be applied as determined by a Morgan State University evaluation. It is possible that not all transferable credit accepted by Morgan State University will be applicable to the degree. Official transcripts from all previously attended institutions will also be required. All transfer students will be required to take a minimum of 30 credits of upper division coursework at Morgan State University, and the last 30 credit hours must be completed at Morgan State University. A minimum of 120 credits are required for the degree.
4. All required program courses must be completed with a grade of "C" or higher to earn transfer credit.
5. The Receiving Institution shall designate, and shall provide to the Sending Institution, the contact information for a staff person at the Receiving Institution who is responsible for the oversight of the transfer of Qualifying Students. The Sending Institution shall designate, and shall provide to the Receiving Institution, the contact information for a staff person at the Sending Institution who is responsible for the oversight of the transfer of Qualifying Students.

| | College of Southern Maryland | Morgan State University |
|---|--|--|
| Name of staff person responsible for oversight | Jacqui Rogers-Frere | Rhonda Shields |
| Title of staff person | Coordinator of Transfer and Articulation | Associate Registrar |
| Email address | jgrogers@csmd.edu | rhonda.shields@morgan.edu |
| Telephone Number | 301-934-7571 | 443-885-3395 |

Should an institution's designated staff person or position change, the institution will provide new contact information to the partner institution and inform the Maryland Higher Education Commission of the change.

Additional contact information:

| | College of Southern Maryland | Morgan State University |
|-------------------------|--|--|
| Name of person | Richard White | Susan Wrenn |
| Title of person | Program Coordinator | Transfer Program Coordinator & Community College Liaison |
| Email address | riwhite1@csmd.edu | susan.wrenn@morgan.edu |
| Telephone number | 301-934-7559 | 443-885-4663 |

6. If the Qualifying Student is using education benefits pursuant to Title 38 of the Code of Federal Regulations (GI Bill® Education Benefits), the Institutions shall adhere to all applicable U.S. Department of Veterans Affairs' regulations, including the regulations governing the awarding of prior credit, as regulated under Title 38, Code of Federal Regulations, Sections 21.4253(d)(3) and 21.4254(c)(4).
7. Each institution shall adhere to all applicable transfer requirements set forth in the Annotated Code of Maryland and the Code of Maryland Regulations and Morgan State University's Transfer Student Policy. In the event of any conflict between this Agreement and Morgan State University's Transfer Student Policy, the Policy shall prevail.
8. Each institution shall advise its students regarding transfer opportunities under this Agreement, and shall advise its students of financial aid opportunities and implications associated with the transfer. Appendix II outlines course requirements to be completed at Morgan. Appendix III is a Student Academic Advising Sheet outlining courses to take at the Sending Institution. Once students have been admitted to Morgan State University, as part of the standard Morgan onboarding process, the students will be contacted by the Office of Transfer Student Programming with instructions regarding orientation, advising, and registration (tsp@morgan.edu, <https://www2.morgan.edu/tsp>). Students who have satisfied the requirements of the articulation agreement will be given every consideration for financial assistance and will be eligible to compete for academic scholarships at Morgan. Financial aid and scholarship information may be found at <https://www2.morgan.edu/financialaid>.
9. Should either institution make changes to program requirements, the institution will inform the partner institution, in writing, immediately. This Agreement will be amended to reflect any such changes, pursuant to Section D(2) of this Agreement, and forwarded to the Maryland Higher Education Commission.

C. Term and Termination

1. This agreement shall commence on July 1, 2022 and end on June 30, 2024. If this Agreement is terminated, all students participating in the Program on or before the effective date of termination will be able to complete their studies in accordance with the terms of this Agreement that are relevant to their specific circumstances.
2. Either institution may, at its sole discretion, terminate this Agreement upon delivering 30 days' written notice to the other institution and the Maryland Higher Education Commission.

3. Both Institutions agree to meet twice every year to review the terms of this Agreement.

D. Amendment

1. This Agreement, including its attachments and/or exhibits, constitutes the entire understanding and agreement of the Institutions with respect to their rights and obligations in carrying out the terms of the Agreement, and supersedes any prior or contemporaneous agreements or understandings.
2. This Agreement may be modified only by written amendment executed by both Institutions.

E. Governing Law

This Agreement shall be governed by, and construed in accordance with, the laws of the State of Maryland.

F. Counterparts

This Agreement may be executed in counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same agreement.

G. Notice of Agreement

1. The Institutions agree to provide a copy of this Agreement, with any amendments or subsequent amendments, to the Maryland Higher Education Commission.
2. The Institutions agree to provide executed copies of this Agreement to their respective relevant individuals and/or departments, including but not limited to students, academic department chairs participating in the transfer, offices of the president, registrar's offices, and financial aid offices. The office of record for program articulation agreements at Morgan State University is the Office of the Registrar.
3. Any and all notices required to be given hereunder shall be sent registered or certified mail, postage prepaid, return receipt requested to the addresses as follows:

To: College of Southern Maryland:

Jacqui Rogers-Frere
College of Southern Maryland
Registrar's Office
8730 Mitchell Road
La Plata, MD 20646

Bachelor of Science in Computer Science
College of Southern Maryland to Morgan State University

Articulation Agreement
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To: Morgan State University

Dr. David K. Wilson, President
Office of the President
Morgan State University
1700 East Cold Spring Lane
Truth Hall, Room 400
Baltimore, Maryland 21251

With a copy to:

Rhonda Shields
Morgan State University
Office of the Registrar
1700 E. Cold Spring Lane
Baltimore, MD 21251

Susan Wrenn
Morgan State University
Office of the Registrar
1700 E. Cold Spring Lane
Baltimore, MD 21251

H. No Third-Party Beneficiaries

There are no third-party beneficiaries to this Agreement.

I. Representations and Warranties of the Parties

Both Institutions represent and warrant that the following are true and correct, and shall continue to be true and correct during the term of this Agreement:

1. The Institutions are and shall remain in compliance with all applicable federal, state, and local statutes, laws, ordinances, and regulations relating to this Agreement, as amended from time to time, including, but not limited to, the provisions of the Family Educational Rights and Privacy Act (“FERPA”) (20 U.S.C. § 1232g; 34 C.F.R. Part 99) and the Health Insurance Portability and Accountability Act (“HIPAA”) (Pub.L. 104-191).
2. Each Institution has taken all action necessary for the approval and execution of this Agreement.

J. Morgan State University

Morgan State University represents and warrants that it is an agency and instrumentality of the State of Maryland, acting in its higher education capacity, and has the legal capacity to enter into this Agreement. Nothing in the terms of this Agreement shall abrogate the responsibilities assigned to Morgan State University under applicable state and federal laws and regulations, or the policies of Morgan State University's Board of Regents for the development of curricula, the assessment of student learning, the transfer of students, nor the award of academic degrees.

K. Limited Liability

The College of Southern Maryland acknowledges that Morgan State University is a Maryland State agency and is self-insured. Limits of liability are governed by the Maryland Tort Claims Act, Title 12, Subtitle 1, of the State Government Article, Maryland Annotated Code.

L. Severability

If any section or provision of this Agreement is held illegal, unenforceable or in conflict with any law by a court of competent jurisdiction, such section or provision shall be deemed severed and the validity of the remainder of this Agreement shall not be affected thereby.

M. Independent Contractor Status

The Institutions hereby acknowledge that they are independent contractors, and neither is the agent, employer or servant of the other. In no event shall this Agreement be construed as establishing a partnership, joint venture or similar relationship between the Institutions hereto.

N. Non-Discrimination

The Institutions agree to comply with Titles VI and VII of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Executive Order 11246, and the Americans with Disabilities Act of 1990 and the related regulations of each. Each institution agrees that it will not discriminate against any individual including, but not limited to Qualifying Students, because of race, religion, creed, color, sex or sexual orientation, marital status, gender identity or expression, age, physical or mental disability, veteran status, political affiliation, non-disqualifying handicap, or national or ethnic origin.

O. Compensation

There shall be no monetary consideration paid to either institution; it being acknowledged that the transfer of academic credits provided hereunder is mutually beneficial.

P. Authority

The persons executing this Agreement on behalf of the Institutions hereby represents and warrants that the institution they represent is a duly formed, validly existing entity qualified to do business in the State of Maryland, that the institution has full power and authority to enter into this Agreement, and that the person is authorized to execute this Agreement on behalf of the institution the person is representing.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives.

College of Southern Maryland

Morgan State University

DocuSigned by:
Maureen Murphy
By: _____
5C5BDAD24FC5459...

DocuSigned by:
David K. Wilson
By: _____
0BE74CEB701B4CE...

Dr. Maureen Murphy
President

Dr. David K. Wilson
President

09-May-22 | 12:54 PM EDT

06-May-22 | 8:01 AM EDT

Date

Date

APPENDICES

As part of this agreement, the following have been included:

1. Course-by-course articulations
2. Upper division requirements to be completed at Morgan State University
3. An academic advising sheet showing requirements for completion of the degree at the Sending Institution.

These appendices may be changed, by mutual agreement, after adequate notice, defined as one calendar year, without the procedural process review or revision of the entire articulation agreement.

APPENDIX 1—COURSE-BY-COURSE ARTICULATIONS

| College of Southern Maryland Courses (Sending Institution) | | | Morgan State University Comparable Course (Receiving Institution) | | | |
|---|---|---------|--|--|---------|--|
| 2021-2022 Catalog - Computer Science, AS | | | 2020-2022 Undergraduate Catalog - Computer Science, BS | | | |
| General Education Listing | | | General Education Requirements Distribution Areas | | | |
| Course Number | Course Name | Credits | Course Number | Course Name | Credits | Applied to ¹ |
| General Education & University Requirements | | | | | | |
| ENG-1010 | Composition and Rhetoric | 3 | ENGL 101 | Freshman Composition (EC) | 3 | General Education (EC) |
| ENG-1020 | Composition and Literature | 3 | ENGL 102 | Freshman Composition II (EC) | 3 | General Education (EC) |
| | | | MATH 113 | Introduction to Mathematical Analysis I ² | 4 | Mathematics and Quantitative Reasoning (MQ) |
| XXX | Courses from Biological Sciences, Chemistry, Environmental Science, Geology, Physics (Must be 4cr sequence) (1) | 4 | XXX | Biological and Physical Science – Lab Science (BP) Strongly Recommended: CHEM 101 and CHEM 101L - General Chemistry (3 cr + 1 cr) | 4 | Biological and Physical Science - Lab science (BP) |
| XXX | Courses from Astronomy, Biological Sciences, Chemistry, Environmental Science, Geology, Geography, Physics. (2) | 3 | XXX | Biological and Physical Science – Non-Lab Science (BP) Strongly Recommended: EASC 102 - Meteorology | 3 | Biological and Physical Science – Non-Lab Science (BP) |
| ECN-1200 | Introduction to Economics | 3 | XXX | Social and Behavioral Science (SB) Strongly Recommended: HIST 101 - World History I | 3 | Social and Behavioral Science (SB) |
| XXX | Courses from Social/Behavioral sciences (3) (from 2 different disciplines) | 3 | XXX | Social and Behavioral Science (SB) Strongly Recommended: | 3 | Social and Behavioral Science (SB) |

¹ For each course listed, the Receiving Institution must indicate if the course is applied to general education, program/major requirements, or general elective.

² denotes a department required supporting/major course which may fulfill a general education requirement and must be completed with a grade of “C” or higher

| | | | | | | |
|----------------------|---|-----------|-----------------|---|-----------|---|
| | | | | PSYC 101 - General Psychology | | |
| BIO-2160 | Principles of Nutrition ³ | 3 | NUSC 160 | Introduction to Nutrition | 3 | Health and Healthful Living (HH) |
| PHL-1020 | Introduction to Logic ² | 3 | PHL 109 | Introduction to Critical Thinking | 3 | Critical Thinking (CT) |
| XXX | Contemporary and Global Issues, Ideas and Values (CI) | 3 | XXX | Courses from Interdisciplinary/ Emerging Issues | 3 | Contemporary and Global Issues, Ideas and Values (CI) |
| | | | XXX | Arts & Humanities (AH) Strongly Recommended: PHIL 220 - Ethics and Values | 3 | Arts & Humanities (AH) |
| | | | XXX | Arts & Humanities (AH) Strongly Recommended: COMM 203 - Media Literacy in a Diverse World | 3 | Arts & Humanities (AH) |
| XXX | Wellness, Fitness, and Sports | 1 | XXX | Physical Education Activity or Financial Literacy (FIN 101) or Special Topics in Mindfulness (MIND 101) | 1 | Except WFS 1401, 1701, 1750, 1760, 1770, 1775, 1790 |
| COSC-2591 | Computer Science I | 3 | COSC 111 | Introduction to Computer Science I ⁴ | 4 | Computer Science Supporting Course (IM) and Information, Technological and Media Literacy |
| Free Elective | | | | | | |
| ITS-1050 | Computing Essentials | 3 | XXX | Lower-Level Elective | 3 | |
| MTH-1015 | Intro to Statistics | 3 | XXX | Lower-Level Elective | 3 | |
| | Total General Education Transfer Credits | 38 | | Total General Education Credits | 49 | |

³ Students can choose to take these courses at the College of Southern Maryland, however, please consult Financial Aid as these courses are outside the Associate of Science in Computer Science.

⁴ denotes a department required supporting/major course which may fulfill a general education requirement and must be completed with a grade of "C" or higher

| Required Cloud Computing Major Courses | | | | | | |
|---|---|-----------|-----------------|--|-----------|--|
| In order to satisfy Cloud Computing major requirements, students must complete the courses listed below with grades of "C" or higher. | | | | | | |
| CSC-2591 | Computer Science I | - | COSC 111 | Introduction to Computer Science I | - | |
| CSC-2592 | Computer Science II | 4 | COSC 112 | Introduction to Computer Science II | 4 | |
| CSC-2740 | Data Structures & Algorithm | 4 | COSC 220 | Data Structures & Algorithm Analysis | 4 | |
| | | | COSC 241 | Computer Systems and Digital Logic | 3 | |
| MTH-2500 | Introduction to Discrete Math | 3 | COSC 281 | Discrete Structures | 3 | |
| | | | COSC 349 | Computer Networks | 3 | |
| ITS-2090 | Computer Security | 3 | COSC 351 | Cybersecurity | 3 | |
| | | | COSC 354 | Operating Systems | 4 | |
| | | | CLCO 261 | Introduction to Cloud Computing | 3 | |
| | | | CLCO 401 | Cloud Applications | 3 | |
| | | | CLCO 490 | Senior Project in Cloud Computing | 3 | |
| | Total Program Transfer Credits | 14 | Total | Total Program Credits | 33 | |
| Supporting Courses | | | | | | |
| | | | MATH 113 | Introduction to Mathematical Analysis I | - | |
| | | | MATH 114 | Introduction to Mathematical Analysis II | 4 | |
| MTH-1200 | Calculus I and Analytic Geometry | 4 | MATH 241 | Calculus I | 4 | |
| MTH-2220 | Introduction to Linear Algebra | 4 | MATH 312 | Linear Algebra I | 3 | |
| | | | BUAD 200 | Introduction to Business for Non-Business Majors | 3 | |
| | Total Supporting Course Transfer Credits | 8 | | Total Supporting Course Credits | 14 | |
| Cloud Computing Electives | | | | | | |
| 2XX-4XX Level Courses | | | | | | |
| Group A Electives: Choose two (2) courses | | | | | | |

| | | | | | | |
|--|-------------------------------|---|-----------------|--|---|--|
| | | | COSC 238 | Object Oriented Programming | 4 | |
| | | | COSC 239 | Java Programming | 3 | |
| CSC-2750 | Computer Architecture | 4 | COSC 243 | Computer Architecture | 3 | |
| ITS-2480 | Data Analytics | 3 | COSC 251 | Introduction to Data Science | 3 | |
| MTH-2500 | Introduction to Discrete Math | 3 | COSC 281 | Discrete Structure | 3 | |
| | | | MATH 242 | Calculus II | 4 | |
| Group B Electives: Choose three (3) courses | | | | | | |
| | | | COSC 320 | Algorithm Design and Analysis | 3 | |
| | | | COSC 323 | Introduction to Cryptography | 3 | |
| | | | COSC 332 | Introduction to Game Design and Development | 3 | |
| | | | COSC 358 | Network Security Fundamentals | 3 | |
| | | | COSC 383 | Numerical Methods and Programming | 3 | |
| | | | COSC 385 | Theory of Languages and Automata | 3 | |
| | | | COSC 386 | Introduction to Quantum Computing | 3 | |
| | | | MATH 313 | Linear Algebra II | 3 | |
| | | | MATH 331 | Applied Probability and Statistics | 3 | |
| | | | EEGR 317 | Electronic Circuits | 4 | |
| Group C Electives: Choose five (5) courses | | | | | | |
| | | | COSC 458 | Software Engineering | 3 | |
| | | | COSC 459 | Database Design | 3 | |
| | | | COSC 470 | Artificial Intelligence | 3 | |
| | | | COSC 472 | Introduction to Machine Learning | 3 | |
| | | | COSC 486 | Applied Quantum Computing | 3 | |
| | | | COSC 491 | Conference Course | 3 | |
| | | | COSC 498 | Senior Internship** | 3 | |
| | | | COSC 499 | Senior Research OR Teaching/Tutorial Assistantship** | 3 | |

| | | | | | | | |
|--|---|-----------|--|--|------------|--|--|
| | | | CLCO 471 | Data Analytics in Cloud | 3 | | |
| | | | Group D Electives: Choose one (1) course 3XX-4XX Level Computer Science Course (Not Previously Taken) | | | | |
| | | | MATH 345 | Mathematics for Insurance and Investment | 3 | | |
| | | | MATH 346 | Financial Mathematics | 4 | | |
| | | | MATH 361 | Introduction to Mathematical Modeling | 3 | | |
| | | | BUAD 326 | Business and Society: Ethics and Sustainability | 3 | | |
| | | | INSS 391 | IT Infrastructure and Security | 3 | | |
| | | | INSS 494 | Information Security and Risk Management | 3 | | |
| | | | EEGR 481 | Introduction to Network Security | 3 | | |
| | | | EEGR 483 | Introduction to Security Management | 3 | | |
| | | | XXX | 300 - 400 Level COSC Course (Not Previously Taken) | 3 | | |
| | Total Elective Transfer Credits | 10 | | Total Elective Credits | 33 | | |
| | TOTAL TRANSFER CREDITS⁵ | 70 | | TOTAL CREDITS FOR DEGREE PROGRAM | 120 | | |

⁵ Students are eligible to transfer up to 70 credits to Morgan State University.

APPENDIX II-COURSE REQUIREMENTS TO BE FULFILLED AT MORGAN STATE UNIVERSITY

Bachelor of Science Degree in Computer Science (120 credits)

All transfer students will be required to take a minimum of 30 credit hours of upper division coursework at Morgan State University. A minimum total of 120 credits are required for the degree. Completion of the specified program requires students to successfully complete the following course work:

| Course Number | Course Name | Credits | Explanation ⁶ |
|---|--|-----------|---|
| General Education and University Requirements | | | |
| ENGL 101 | Freshman Composition | 3 | General Education (EC) |
| ENGL 102 | Freshman Composition II | 3 | General Education (EC) |
| PHL 109 | Introduction to Critical Thinking | 3 | Critical Thinking (CT) |
| MATH 241 | Calculus I* * denotes a department required supporting/major course which may fulfill a general education requirement and must be completed with a grade of "C" or higher | 4 | Mathematics and Quantitative Reasoning (MQ) |
| XXX | Arts & Humanities (AH) | 3 | Arts & Humanities (AH) |
| XXX | Arts & Humanities (AH) | 3 | Arts & Humanities (AH) |
| XXX | Biological and Physical Science – Lab Science (BP) | 4 | Biological and Physical Science - Lab science (BP) |
| XXX | Biological and Physical Science – Non-Lab Science (BP) | 3 | Biological and Physical Science – Non-Lab Science (BP) |
| XXX | Social and Behavioral Science (SB) | 3 | Social and Behavioral Science (SB) |
| XXX | Social and Behavioral Science (SB) | 3 | Social and Behavioral Science (SB) |
| NUSC 160 | Introduction to Nutrition | 3 | Health and Healthful Living (HH) |
| XXX | Courses from Interdisciplinary/ Emerging Issues | 3 | Contemporary and Global Issues, Ideas and Values (CI) |
| XXX | Physical Education Activity or Financial Literacy (FIN 101) or Special Topics in Mindfulness (MIND 101) | 1 | |
| COSC 111 | Introduction to Computer Science I* * denotes a department required supporting/major course which may fulfill a general education requirement and must be completed with a grade of "C" or higher | 4 | Computer Science Supporting Course and Information, Technological and Media Literacy (IM) |
| | Total | 43 | |
| Please see General Education Requirements Distribution Areas for courses that satisfy General Education Requirements where it is not specified by the department. | | | |

⁶ For each course listed, the Receiving Institution must indicate if the course is applied to general education, program/major requirements, or general elective.

| Required Computer Science Major Courses | | | |
|--|--|-----------|---|
| In order to satisfy Computer Science major requirements, students must complete the courses listed below with grades of "C" or higher. | | | |
| COSC 111 | Introduction to Computer Science I* * denotes a department required supporting/ major course which may fulfill a general education requirement and must be completed with a grade of "C" or higher | - | Computer Science Supporting Course and Information, Technological and Media Literacy (IM) |
| COSC 112 | Introduction to Computer Science II | 4 | |
| COSC 220 | Data Structures & Algorithm Analysis | 4 | |
| COSC 241 | Computer Systems and Digital Logic | 3 | |
| COSC 281 | Discrete Structures | 3 | |
| COSC 349 | Computer Networks | 3 | |
| COSC 351 | Cybersecurity | 3 | |
| COSC 352 | Organization of Programming Languages | 3 | |
| COSC 354 | Operating Systems | 4 | |
| COSC 458 | Software Engineering | 3 | |
| COSC 459 | Database Design | 3 | |
| COSC 490 | Senior Project | 3 | |
| | Total | 36 | |
| Supporting Courses | | | |
| MATH 241 | Calculus I* * denotes a department required supporting/ major course which may fulfill a general education requirement and must be completed with a grade of "C" or higher | - | Mathematics and Quantitative Reasoning (MQ) |
| MATH 242 | Calculus II | 4 | |
| MATH 312 | Linear Algebra I | 3 | |
| MATH 331 | Applied Probability and Statistics | 3 | |
| COSC 201 | Computer Ethics | 1 | |
| | Total | 11 | |
| Computer Science Electives 2XX-4XX Level Courses | | | |
| Group A Electives: Choose three (3) courses | | | |
| COSC 238 | Object Oriented Programming | 4 | |
| COSC 239 | Java Programming | 3 | |
| COSC 243 | Computer Architecture | 3 | |
| COSC 251 | Introduction to Data Science | 3 | |
| CLCO 261 | Introduction to Cloud Computing | 3 | |
| Group B Electives: Choose two (2) courses | | | |
| COSC 320 | Algorithm Design and Analysis | 3 | |
| COSC 323 | Introduction to Cryptography | 3 | |

| | | | |
|--|--|------------|--|
| COSC 332 | Introduction to Game Design and Development | 3 | |
| COSC 338 | Mobile App Design & Development | 3 | |
| COSC 383 | Numerical Methods and Programming | 3 | |
| COSC 386 | Introduction to Quantum Computing | 3 | |
| MATH 313 | Linear Algebra II | 3 | |
| EEGR 317 | Electronic Circuits | 4 | |
| Group C Electives: Choose four (4) courses | | | |
| COSC 460 | Computer Graphics | 3 | |
| COSC 470 | Artificial Intelligence | 3 | |
| COSC 472 | Introduction to Machine Learning | 3 | |
| COSC 480 | Introduction to Image Processing and Analysis | 3 | |
| COSC 486 | Applied Quantum Computing | 3 | |
| COSC 491 | Conference Course | 3 | |
| COSC 498 | Senior Internship | 3 | |
| COSC 499 | Senior Research OR Teaching/Tutorial Assistantship 3 | 3 | |
| CLCO 411 | Cloud Security | 3 | |
| CLCO 471 | Data Analytics in Cloud | 3 | |
| Group D Electives: Choose one (1) course 3XX-4XX Level Computer Science Course (Not Previously Taken) | | | |
| INSS 391 | IT Infrastructure and Security | 3 | |
| EEGR 481 | Introduction to Network Security | 3 | |
| EEGR 483 | Introduction to Security Management | 3 | |
| INSS 494 | Information Security and Risk Management | 3 | |
| Total | | 30 | |
| TOTAL CREDITS TO BE TAKEN AT MSU | | 50 | |
| TOTAL CREDITS REQUIRED FOR DEGREE PROGRAM | | 120 | |

APPENDIX III: STUDENT ACADEMIC ADVISING SHEETCollege of Southern Maryland
[2021-2022 Academic Catalog](#)

Thank you for your interest in the articulated academic plan for the Bachelor of Science degree in Computer Science. Successful completion of this program will ensure a smooth transition to Morgan State University.

| Courses to take at College of Southern Maryland | | | | | |
|--|--|---------------|------------------|-----------------------|-----------------------|
| Course | Course Title | Credit | Completed | Grade Received | Grade Required |
| ENG-1010 | Composition & Rhetoric | 3 | | | C or better |
| ENG-1020 | Composition & Literature | 3 | | | C or better |
| MTH-1200 | Calculus I & Analytic Geometry | 4 | | | C or better |
| XXX | Choose ONE: COM-1010, COM-1250, COM-1350, or COM-1650 | 3 | | | D or better |
| XXX | Choose ONE: PHL-1150, COM-1010, COM-1250, COM-1350, COM-1650 or other approved Arts/Humanities course | 3 | | | D or better |
| XXX | Courses from Biological Sciences, Chemistry, Environmental Science, Geology, Physics (Must be 4 credit sequence) | 4 | | | D or better |
| XXX | Courses from Astronomy, Biological Sciences, Chemistry, Environmental Science, Geology, Geography, Physics | 3 | | | D or better |
| XXX | Courses from Social/Behavioral sciences (3) (from 2 different disciplines) | 3 | | | D or better |
| XXX | Courses from Social/Behavioral sciences (3) (from 2 different disciplines) | 3 | | | D or better |
| CSC-1110 | Program Design and Development | 3 | | | D or better |
| CSC-2591 | Computer Science I | 4 | | | C or better |
| CSC-2592 | Computer Science II | 4 | | | C or better |
| CSC-2740 | Data Structures & Algorithms | 4 | | | C or better |

| | | | | | |
|--|--------------------------------------|-----------|--|--|-------------|
| MTH-2500 | Introduction to Discrete Mathematics | 3 | | | C or better |
| CSC-2750 | Computer Architecture | 4 | | | C or better |
| MTH-1210 | Calculus II | 4 | | | C or better |
| Program Electives for Potential Morgan State University Transfers | | | | | |
| PHL-1020 | Introduction to Logic | 3 | | | D or better |
| BIO-2160 | Principles of Nutrition | 3 | | | D or better |
| ITS-2090 | Computer Security | 3 | | | C or better |
| MTH-2220 | Introduction to Linear Algebra | 4 | | | C or better |
| ITS-2480 | Data Analytics | 3 | | | D or better |
| ITS-2400 | Introduction to Cloud Computing | 3 | | | D or better |
| | TOTAL TRANSFER CREDITS | 70 | | | |

Application Deadline: To be admitted you will need to have the following credits and grade point average (GPA requirements):

- 12 – 23 credits, a 2.0 GPA, and meet SAT requirements
- 24 or more credits, a 2.0 GPA

Fall Semester: Nov 15 (priority); Feb 15 (regular)

Spring Semester: January 15

Application fee: \$35.00 online/\$45.00 paper

Students shall apply for admission to Morgan State University, indicating Computer Science as the intended major. Applications for admission can be obtained by contacting the Office of Admission and Recruitment at:

<https://www.morgan.edu/office-of-undergraduate-admissions-and-recruitment/how-to-apply/transfer-applicants>

All required application materials must be supplied by the deadline.