# Frederick Community College

## ARTICULATION AGREEMENT

**Frederick Community College**
**Computer Science**

**Frostburg State University**
**Bachelor of Science with a Major in Computer Science**

Entered into this _____ day of _____, 2018.
(date)                              (month)

_____
Ronald Nowaczyk
President
Frostburg State University

_____
Elizabeth Throop
Provost
Frostburg State University

_____
Dr. Tony D. Hawkins,
Provost/Executive Vice President
Academic Affairs, Continuing Education,
and Workforce Development
Frederick Community College

_____
Dorothy Campbell
Interim Dean, College of Liberal Arts and Sciences
Frostburg State University

_____
Deirdre Weilminster,
Registrar
Frederick Community College

_____
George Rinard
Chair, Computer Science and Information Technologies
Frostburg State University

_____
Andy Yao
Program Manager
Frederick Community College

This agreement becomes effective Spring 2019
This agreement will be reviewed biennially.

2

**ARTICULATION AGREEMENT**

Frederick Community College, Associate of Science in Computer Science and Frostburg State University, Bachelor of Science in Computer Science.

Frederick Community College (here after referral to as FCC), a community college in Frederick County, Maryland, and Frostburg State University (FSU) in Frostburg, Maryland, agree to offer an articulated program leading to the award of an Associate of Science (A.S.) in Computer Science Degree and a Bachelor of Science (B.S.) in Computer Science. They further agree that students from FCC, through this articulation policy, will be allowed to transfer credits earned for the A.S. at FCC to Frostburg State University, leading to the award of the B.S. in Computer Science at Frostburg State University. The following general principles guide the operation of this Agreement:

1.  The program is designed for graduates of the A.S. degree in Computer Science at FCC. A maximum of 70 credit hours from FCC will be allowed toward fulfillment of the 120 credit hours required for baccalaureate completion.

2.  All courses meeting general education requirements at FCC will transfer to Frostburg State University as general education courses as they meet the categories and disciplines defined by Frostburg State University.

3.  Students must maintain a 2.0 cumulative grade point average in order to transfer.

4.  The maximum number of credits that will be accepted by Frostburg State University toward degree requirements from non-direct classroom instruction (including CLEP, AP, and other nationally recognized standardized examination scores) is 30. Tech Prep credits will not transfer. Credit awarded for experiential learning ("life experience") is not recognized by, and is not transferable to Frostburg State University.

5.  Once the A.S. is completed and the student has been admitted to Frostburg State University, the student may commence the Computer Science major by formally declaring it through the department and registering for introductory computer science courses.

6.  While FCC and Frostburg State University has not had a dual enrollment program, should one be agreed to, this agreement will not preclude students from participation and students may apply for and receive the benefits of dual enrollment. Those students would then be subject to the policies of said program should they apply.

7.    FCC students who have completed the A.S. will be given every consideration for financial assistance and will be eligible to compete for academic scholarships at Frostburg State University.

8.    This agreement becomes effective on the date set forth on the first page of this document.  FCC and Frostburg State University agree to publicize this program. They further agree to monitor the performance of this agreement and to revise it as necessary.  The agreement may be terminated by either party for due cause and after adequate notice to the other.  Termination of the agreement will not affect any students currently enrolled at FCC in Computer Science at the time of termination, and they shall be able to transfer credits pursuant to this agreement.

## PURPOSE OF AGREEMENT

This agreement is entered into to serve the instructional needs of FCC students and graduates.  The general purpose of this agreement is to make clear the terms of this articulation agreement.

There are three specific goals under this agreement.  First, it is the intent that this articulation agreement will facilitate a smooth transition from FCC's A.S. in Computer Science to the B.S. in Computer Science at Frostburg State University as efficiently as possible.  FCC graduates will understand how Frostburg State University transfers the credits they earn at FCC, as well as the changes in requirements that may permit more flexible scheduling once the student has been admitted to and enrolled at Frostburg State University. This agreement provides a systematic plan for students to continue their higher education beyond the A.S. degree from FCC.

Second, this agreement is a publication of a clear set of understandings and expectations for both institutions and programs.

Third, FCC encourages graduates to continue their educational pathway towards computer science for both personal and professional development, as well as career advancement in the computer science profession. This articulation agreement facilitates students' successful achievement of credentials in the field.

The following sections describe the specifics of the agreement.

## A.S. in Computer Science -B.S. in Computer Science Transfer Agreements

The Computer Science degree at FCC is considered a transfer program. Therefore, Computer Science students who transfer to Frostburg State University will have their coursework evaluated on a course-by-course basis to determine which of Frostburg State University's general education requirements and discipline requirements have been met. By taking full advantage of the FCC-Frostburg State University course agreements outlined below, the transfer student will matriculate at junior standing. Further, this agreement allows the student who has obtained an A.S. Degree in Computer Science from FCC and who has enrolled in the Computer Science degree at Frostburg State University to apply 65 transfer credits to required components of the major.

The following indicates the transfer of course agreement between the A.S. in Computer Science at FCC and the B.S. in Computer Science at Frostburg State University.

| Fall Year 1 at FCC | Credit | FSU equiv. | Spring Year 1 at FCC | Credit | FSU equiv. |
|---|---|---|---|---|---|
| CMIS 106 Object Design & Programming | 3 | COSC 101 | CMIS 201 Computer Science | 4 | COSC 240 |
| ENGL 101 English Composition | 3 | ENGL 101 | CMIS 222 Computer Organizations | 4 | COSC 365 |
| Mathematics Gen Ed (MATH 165 recommended) | 3 | MATH 120 | MATH 185 Calculus | 4 | MATH 236 |
| Arts Gen Ed | 3 | | Biological & Physical Sciences Gen Ed with Lab (BSCI 150 or CHEM 101) | 4 | BIOL 149; CHEM 201 |
| Social & Behavioral Science Gen Ed | 3 | | | | |
| **TOTAL** | **15** | | **TOTAL** | **16** | |

| Fall Year 2 at FCC | Credit | FSU equiv. | Spring Year 2 at FCC | Credit | FSU equiv. |
|---|---|---|---|---|---|
| CMIS 202 Computer Science II | 3 | COSC 241 | Elective- CMIS 111J, CMIS 111L, CMIS 113, CMIS 140, CMIS 281, CMIS 179, CMIS 280 or any 200-level CMIS (Consult FSU Computer Science Department) | 3 | COSC 195 |
| Elective- CMIS 111J, CMIS 111L, CMIS 113, CMIS 140, CMIS 281, CMIS 179, CMIS 280 or any 200-level CMIS (Consult FSU Computer Science Department) | 3 | COSC 195 | Elective- CMIS 111J, CMIS 111L, CMIS 113, CMIS 140, CMIS 281, CMIS 179, CMIS 280 or any 200-level CMIS (Consult FSU Computer Science Department) | 3 | COSC 195 |

| | | MATH 237; MATH 350 | Biological/Physical Sciences Gen Ed (BI 101 or CH 101 or PY 203) | | BIOL 149; CHEM 201 |
|---|---|---|---|---|---|
| Mathematics Elective- Select MATH 195 or MATH 265 | 3 | | | 3/4 | |
| Humanities Gen Ed | 3 | | Social & Behavioral Science Gen Ed (in a different discipline than the first) | 3 | |
| PE/Health Requirements | 1 | | Communications Gen Ed (COMM 103) | 3 | CMST 102 |
| **TOTAL** | **13** | | **TOTAL** | **15/16** | |

*Notes: It should be noted that no more than 65 credits will be brought in as transfer credits, and that of those credits, Frostburg State University will not bring in any remedial courses.*
*4 semesters are needed as a minimum to completed the Computer Science major and Frostburg State University cannot guarantee that a student will finish in 2 years*

## A.S. in Computer Science -B.S. in Computer Science Transfer Agreements

All FCC transfer students with an A.S. in Computer Science will be required to take a minimum of 55 credits of coursework at Frostburg State University. Of these, 39 credits must be 300-400 level courses.

In addition to the general education requirements indicated in the preceding section of this articulation agreement, the Bachelor of Science degree with a major in Computer Science at Frostburg State University requires students to successfully complete the following course work:

| Frostburg State University | | | Notes |
|---|---|---|---|
| Course Number | Course Title | Credit Hours | |
| COSC 102 | Foundations of Computer Science | 4.0 | |
| COSC 325 | Software Engineering | 3.0 | |
| COSC 460 | Operating Systems Concepts | 3.0 | |
| COSC 489 | Computer Science Capstone | 1.0 | |
| COSC 310 | Data Structures and Algorithm Analysis | 3.0 | |
| COSC 331 | Fundamentals of Computer Networks | 3.0 | |
| COSC 350 | Low-Level Programming Concepts | 3.0 | |

| COSC 444 | Introduction to Parallel Computing | 3.0 | |
|---|---|---|---|
| COSC 450 | Programming Language Principles and Paradigms | 3.0 | |
| COSC 485 | Introduction to Theory of Computation | 3.0 | |
| MATH 237 or MATH 350 | Calculus II or Linear Algebra | 3.0-4.0 | One of these courses should be taken as a math elective at FCC |
| MATH 380 | Intro. to Probability and Statistics | 3.0 | |
| ENGL 338 | Technical Writing | 3.0 | |
| | Computer Science electives from approved list | 6.0 | |
| | Humanities general education course | 3.0 | GEP requirement |
| | Identity and Difference course | 3.0 | Select from approved list to satisfy GEP requirement |
| | Electives (any) | 4.0-5.0 | Credits needed to reach 120 for graduation |
| Total = 55 | | | |

## Overview and Summary

For students following this agreement, the steps are as follows:

Step 1: Complete the Computer Science degree at FCC.

Questions should be referred to:
Dr. Jacob Ashby
Assistant Dean, Assessment and Articulation
JAshby@frederick.edu

Or

Marsha Mason-Sowell
Transfer Services Counselor
MMason-Sowell@frederick.edu

Step 2: Apply for admission to Frostburg State University, indicating Computer Science as the intended major. Applications for admission can be completed online at https://www.applyweb.com/frost/index.ftl.

Questions should be referred to:
Dr. George B. Rinard
Chair, Computer Science and Information Technologies
301-687-4719
brinard@frostburg.edu