

Articulation Agreement

Bowie State University and Wor-Wic Community College

Associates of Science in Science, Technology, Engineering and Math

With a Concentration in Biology

To Bachelor of Science in Bioinformatics Degree

Provost Carl B. Goodman

July 1, 2021

**ACADEMIC PROGRAM ARTICULATION AGREEMENT BETWEEN
WOR-WIC COMMUNITY COLLEGE AND BOWIE STATE UNIVERSITY
REGARDING TRANSFER FROM THE ASSOCIATE OF SCIENCE IN SCIENCE,
TECHNOLOGY, ENGINEERING, AND MATH, BIOLOGY AREA OF
CONCENTRATION TO THE BACHELOR OF SCIENCE IN BIOINFORMATICS**

This Academic Program Articulation Agreement (“Agreement”) is entered into by and between **Wor-Wic Community College** (the “Sending Institution”) and **Bowie State University** the “Receiving Institution”) (collectively, the “Institutions”) to facilitate the transfer of academic credits from the **Associate of Science in Science, Technology, Engineering, and Mathematics, Biology Area of Concentration (AOC)** for the completion of the **Bachelor of Science in Bioinformatics** (the “Program(s)”).

A. Qualifying Students

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

1. Have successfully completed the 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

B. Responsibilities of the Institutions

The Institutions agree to implement the transfer of Qualifying Students in accordance with applicable law and the following requirements and protocols:

1. A Qualifying Student may transfer into from the Transferring Institution into the Receiving Institution for the completion of the Program.
2. Courses that the Receiving School will accept credits for towards completion of the Program include:

**Transfer Plan Wor-Wic Community College Associate of Science in Science, Technology,
Engineering, and Mathematics, Biology Area of Concentration (AOC) to
Bowie State University’s Bachelor of Science in Bioinformatics**

This transfer plan is intended for students pursuing **Associate of Science in Science, Technology, Engineering, and Mathematics, Biology Area of Concentration (AOC)** at **Wor-Wic Community College** who are interested in pursuing a **Bachelor of Science in Bioinformatics**. The equivalencies below demonstrate how a student can meet both the requirements of the associate degree and prepare for a seamless transfer to **Bowie State University**. Please note:

- Only courses that have course equivalencies are displayed. This guide does not show all transferable courses from this college.
- Transfer plans are intended to be used as planning tools. If you need additional assistance selecting courses to take prior to transferring to **Bowie State University**, contact **Dr. Shirelle Briscoe**, Assistant Vice President for Transfer & General Student Advocacy in the Office of the Provost at sbriscoe@bowiestate.edu or Transfer Admissions at ugradadmissions@bowiestate.edu.

Course by Course Equivalency (Bowie Catalog, 2020-2021; WWCC Catalog, 2020-2021)

Wor-Wic Community College Requirements A.S. Biology	WWCC Credits	Bowie State University Equivalent B.S. Bioinformatics	BSU Credits
SDV 100 - Fundamentals of College Study	1	Free Elective	1
BIO 105 - Principles of Biology I	4	BIOL 102 - Introductory Biology	4
CHM 105 - General Chemistry I	4	CHEM 107 - General Chemistry	4
ENG 101 - Fundamentals of English I	3	ENGL 101 - Expository Writing	3
MTH 121 - Precalculus I	3	MATH 141 - Precalculus I	3
BIO 106 - Principles of Biology II	4	BIOL 101 - Biological Sciences	4
CHM 106 - General Chemistry II	4	CHEM 108 - General Chemistry II	4
GEN ED - Social/Behavioral Science	3	GEN ED - Social/Behavioral Science	3
ENG 151 - Fundamentals of English II	3	ENGL 102 - Argument and Research	3
General Elective - MTH 122 - Precalculus II	4	MATH 141 - Precalculus II	3
CHM 201 - Organic Chemistry I	4	CHEM 201 - Organic Chemistry I	4
GEN ED - Arts and Humanities	3	GEN ED - Arts and Humanities	3
PHY 121 - General Physics I	4	PHYS 353 - Physics for Bioinformatics	4
Biology Elective (pick one) BIO 202 - Anatomy and Physiology I BIO 203 - Anatomy and Physiology II BIO 220 - Microbiology BIO 221 - Zoology (Recommended: BIO 220 - Microbiology)	4	Biology Elective (corresponding matches) BIOL 311 - Human Anatomy/Physiology I BIOL 312 - Human Anatomy/Physiology II BIOL 309 - Microbiology (Recommended: BIOL 309 - Microbiology I)	4
CHM 202 - Organic Chemistry II	4	CHEM 202 - Organic Chemistry II	4
GEN ED - Social/Behavioral Science	3	GEN ED - Social/Behavioral Science	3
Science Elective (pick one) BIO 202 - Anatomy and Physiology I BIO 203 - Anatomy and Physiology II BIO 220 - Microbiology BIO 221 - Zoology PHY 122 - General Physics II (Recommended: BIO 202 - Anatomy and Physiology I)	4	Science Elective (corresponding matches) BIOL 311 - Human Anatomy/Physiology I BIOL 312 - Human Anatomy/Physiology II BIOL 309 - Microbiology - - (Recommended: BIOL 311 Human Anatomy/Physiology I)	4
Elective - General Elective (Recommended: MTH 152 - Elementary Statistics)	3	MATH 155 Introduction to Probability & Statistics	3
Total Credits	62	Total Credits	61

Remaining Courses

Students who complete the plan above including all recommended courses and earn the **A.S. in STEM, Biology (AOC)** will take the following courses at Bowie State University to meet their graduation requirements. Students who transfer before completing the **Associate of Science in STEM, Biology Area of Concentration** may have additional program and graduation requirements to take and fewer free electives.

Major Requirements

All transfer students will be required to take a minimum of **60** credits of coursework at Bowie State University. A minimum total of 120 credits are required for the degree.

Completion of the **Bachelor of Science in Bioinformatics** requires students to successfully complete the following course work:

Bowie State University Course	Credits	Explanation
COSC 112 - Computer Science I	4	
MATH 225 - Calculus I	4	
BIOL 209 - General Genetics	4	
BIOL 324 - General Bioinformatics	3	
CHEM 309 - Biochemistry I	3	
BIOL 313 - Cell Biology	4	
COSC 113 - Computer Science II	4	
BIOL 303 - Molecular Biology	4	
MATH 226 - Calculus II	4	
COSC 473 - Artificial Intelligence	3	
COSC 214 - Data Structures & Algorithm	4	
MATH 228 - Linear Algebra	3	
BIOL 421 - Bioinformatics	4	
HIST 114 or 115 African American History	3	
BIOL/COSC/CHEM elective (400 level)	4	
HEED 102 or 200 Life & Health	3	
Arts and Humanities elective	3	
BIOL 403 - Biology Seminar	2	
BIOL/COSC/CHEM elective (400 level)	4	
TOTAL CREDITS	67	

Additional Credits Needed:

Total credits to be taken at BSU: **67**

The recommended course sequence and advising guide is included as follows:

YEAR ONE FALL SEMESTER at WWCC (16 credits)	Credits	Notes
SDV 100 - Fundamentals of College Study	1	
BIO 105 - Principles of Biology I	4	
CHM 105 - General Chemistry I	4	
ENG 101 - Fundamentals of English I	3	
MTH 122 - Precalculus II (4 Credits)	4	
YEAR ONE SPRING SEMESTER at WWCC (17 credits)	Credits	Notes
BIO 106 - Principles of Biology II	4	
CHM 106 - General Chemistry II	4	
GEN ED - Social/Behavioral Science Requirement	3	
ENG 151 - Fundamentals of English II	3	
Elective - General Elective	3	
YEAR TWO FALL SEMESTER at WWCC (15 credits)	Credits	Notes
CHM 201 - Organic Chemistry I	4	
GEN ED - Arts and Humanities Requirement	3	
PHY 121 - General Physics I	4	
Biology Elective: (Recommended: BIO 220 – Microbiology)	4	
YEAR TWO SPRING SEMESTER at WWCC (14 credits)	Credits	Notes
CHM 202 - Organic Chemistry II	4	
GEN ED - Social/Behavioral Science Requirement	3	
Elective - General Elective	3	
Science Elective	4	
YEAR THREE FALL SEMESTER at BSU (18 credits)	Credits	Notes
COSC 112 - Computer Science I	4	
MATH 225 Calculus I	4	
BIOL 209 General Genetics	4	
BIOL 324 General Bioinformatics	3	
CHEM 309 Biochemistry I	3	
YEAR THREE SPRING SEMESTER at BSU (16 credits)	Credits	Notes
BIOL 313 - Cell Biology	4	
COSC 113 Computer Science II	4	
BIOL 303 - Molecular Biology	4	
MATH 226 Calculus II	4	
YEAR FOUR FALL SEMESTER (17 credits)	Credits	Notes
COSC 473 Artificial Intelligence	3	
COSC 214 Data Structures & Algorithm	4	
MATH 228 Linear Algebra	3	
BIOL 421 Bioinformatics	4	
HIST 114 or 115 African American History	3	
YEAR FOUR SPRING SEMESTER at BSU (16 credits)	Credits	Notes
BIOL/COSC/CHEM elective (400 level)	4	

HEED 102 or 200 Life & Health	3	
Arts and Humanities elective	3	
BIOL 403 - Biology Seminar	2	
BIOL/COSC/CHEM elective (400 level)	4	

3. Additional Provisions

- Courses that fulfill program requirements are only eligible for transfer if students have earned a grade of “C” or better. Students' overall grade point average and the trend of the most recent grades will be considered.
- Students must have a 2.0 cumulative grade point average in time of application.
- Bowie State University will accept up to 65 credits from a two-year college or up to 90 credits from a four-year college, but only a total of 90 credit hours and non-direct classroom instruction (including CLEP, LSAT, and other nationally recognized standardized examination scores).
- For non-direct classroom instruction, an appropriate score is determined by Bowie State University, and the student must submit original test scores/results to Bowie State University.
- For financial aid and scholarship information, please see the [Financial Aid](#) webpage.
- Students intending to transfer should complete the admission application for Bowie State University once they have reached 45 credits of the Associate Degree program. Students should contact the Financial Aid Office at Bowie State University as soon as possible in regard to college deadlines for financial aid. Students who have completed an associate degree at a Maryland community college are guaranteed admissions to Bowie.

4. 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.

Oversite of Records	Sending Institution	Receiving Institution
Name of staff person responsible for oversight	Ms. Angie Hayden	Dr. Shirelle Briscoe
Title of staff person	Transfer Coordinator and Associate Registrar	Assistant Vice President for Transfer & General Student Advocacy, Division of Enrollment Management, Office of the Provost
Email address	ahayden@worwic.edu	sbriscoc@bowiestate.edu
Telephone Number	410-334-2800	301-860-3460

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

Additional contact information:

Articulation Agreement Contact	Sending Institution	Receiving Institution
Name of person	Ms. Angie Hayden	Dr. Shirelle Briscoe
Title of person	Transfer Coordinator and Associate Registrar	Assistant Vice President for Transfer & General Student Advocacy, Division of Enrollment Management, Office of the Provost
Email address	ahayden@worwic.edu	sbriscoe@bowiestate.edu
Telephone Number	410-334-2800	301-860-3460

5. If the Qualifying Student is using federal Title 38 VA Education Benefits (GI Bill® Education Benefits), the Institutions shall adhere to all applicable U.S. Department of Veterans Affairs' regulations, including the regulations governing the awarding prior credit, as regulated under Title 38, Code of Federal Regulations, Sections 21.4253(d)(3) and 21.4254(c)(4).
6. Each Institution shall adhere to all applicable transfer requirements set forth in the Annotated Code of Maryland and the Code of Maryland Regulations.
7. Each Institution shall advise students regarding transfer opportunities under this Agreement, and shall advise students of financial aid opportunities and implications associated with the transfer.
8. Should either Institution make changes to program requirements, the institution will inform the partner institution immediately.

C. Term and Termination

1. This agreement shall be effective on the date that it is signed by the appropriate and authorized representatives of each Institution.
2. Either Institution may, at its sole discretion, terminate this Agreement upon delivering 60 days written notice to the other Institution.
3. Both Institutions agree to meet once every **2 year(s)** to review the terms of this agreement, and renew or apply edits in written correspondence, copied to each party referenced in this document.

D. Amendment

1. This Agreement 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 copies of this Agreement to all relevant individuals and departments of the Institutions, including but not limited to students, academic department chairs participating in the transfer, offices of the president, registrar's offices, and financial aid offices.

H. No Third-Party Beneficiaries


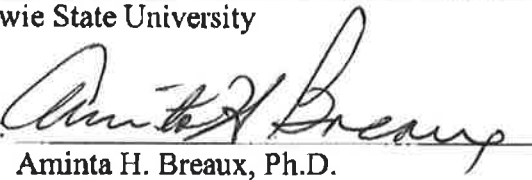
There are no third-party beneficiaries to this Agreement.

I. Representations and Warranties of the Parties

Both Institutions represent and warrant that the following shall be true and correct as of the Effective Date of this Agreement, 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.
2. Each Institution has taken all action necessary for the approval and execution of this Agreement.

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

<p>Wor-Wic Community College</p> <p>By: </p> <p>Dr. Ray Hoy President, Wor-Wic Community College</p> <p><u>5/12/21</u> Date</p>	<p>Bowie State University</p> <p>By: </p> <p>Aminta H. Breaux, Ph.D. President, Bowie State University</p> <p><u>7-6-21</u> Date</p>
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Date of next review (2 years from date of last signature): _____