



Bowie State University and Community College of Baltimore County  
Articulation Agreement

Bioinformatics  
Biology  
Chemistry

June 10, 2021

**Articulation Agreement**

**Bowie State University and Community College of Baltimore County**

**Associate of Science Degree in Biology, Concentration of Science**

**To Bachelor of Science Degree in Bioinformatics**

**May 25, 2021**

**ACADEMIC PROGRAM ARTICULATION AGREEMENT BETWEEN  
COMMUNITY COLLEGE OF BALTIMORE COUNTY AND BOWIE STATE  
UNIVERSITY REGARDING TRANSFER FROM THE ASSOCIATE OF SCIENCE IN  
BIOLOGY, SCIENCE AREA OF CONCENTRATION TO THE BACHELOR OF  
SCIENCE IN BIOINFORMATICS**

This Academic Program Articulation Agreement (“Agreement”) is entered into by and between **Community College of Baltimore County** (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 Biology, Science Area of Concentration** 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 Community College of Baltimore County  
Associate of Science in Biology, Science Area of Concentration  
to Bowie State University’s Bachelor of Science in Biology**

This transfer plan is intended for students pursuing **Associate of Science in Biology, Science Area of Concentration** at the Community College of Baltimore County 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](mailto:sbriscoe@bowiestate.edu) or Transfer Admissions at [ugradadmissions@bowiestate.edu](mailto:ugradadmissions@bowiestate.edu).

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

Community College of Baltimore County Requirements A.S. Biology, Science AOC	CCBC Credits	Bowie State University Equivalent B.S. Bioinformatics	BSU Credits
CHEM 131- General Chemistry I	4	CHEM 107- General Chemistry	4
CSIT 101- Technology and Information Systems	3	Free Elective	3
ENGL 101- College Composition I	3	ENGL 101- Expository Writing	3
MATH 251- Calculus I	4	MATH 225- Calculus I	4
BIOL 110- Biology I: Molecules & Cells	4	BIOL102 - Introductory Biology	4
CHEM 133- General Chemistry II	4	CHEM 108 - General Chemistry II	4
CMNS 101- Fundamental of Communication	3	COMM 101 - Oral Communications Satisfies Arts & Humanities Elective	3
MATH 153- Introduction to Statistical Methods OR MATH 252- Calculus II	4	Free Elective	4
BIOL 111- Biology II: Evolution & Ecology	4	BIOL103 - General Zoology	4
Gen. Ed. Elective – Arts and Humanities	3	Arts & Humanities Electives	3
Gen. Ed. Elective – Social and Behavioral Sciences	3	Social Sciences Electives *Ensure the chosen course is transferable to BSU	3
Organic Chemistry Sequence; Organic Chemistry I w/ Lab (CHEM 200 & 201)	4	CHEM 201 - Organic Chemistry I	4
BIOL 251- Genetics	4	BIOL 209 - General Genetics	4
Gen. Ed. Elective - Social and Behavioral Sciences	3	Social Sciences Electives *Ensure the chosen course is transferable to BSU	3
CHEM 202 & 203- Organic Chemistry Sequence (Organic Chemistry II & Lab)	4	CHEM 202 - Organic Chemistry II	4
Program Electives (6 needed) *Recommended Courses:		Program Electives *Corresponding Courses:	
BIOL104 - General Botany	4	BIOL 105 - General Botany	4
BIOL 230- Microbiology	4	BIOL 309 - Microbiology I	4
<b>Total Credits</b>	<b>62</b>	<b>Total Credits</b>	<b>62</b>

**Remaining Courses**

Students who complete the plan above including all recommended courses and earn the **A.S. in Biology, Science Area of Concentration** will take the following courses at Bowie State University to meet their graduation requirements. Students who transfer before completing the **Associate of Science in Biology Science 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:

<b>Bowie State University Course</b>	<b>Credits</b>	<b>Explanation</b>
ENGL 102: Argument & Research	3	
General Education Elective	3	
BIOL 3 : Advanced Biology Elective	4	
HEED 102: Life & Health or HEED 200: Fundamentals of Sex Ed.	3	
BIOL 313: Cell Biology	4	
BIOL 3 : Advanced Biology Elective	4	
General Education Elective	3	
PHYS 251: Principles of Physics I	4	
BIOL 303: Molecular Biology	4	
COSC 112: Computer Science I	4	
PHYS 252: Principles of Physics II	4	
BIOL 403: Biology Seminar	2	
BIOL 4 : Advanced Biology Elective	4	
BIOL 4 : Advanced Biology Elective	4	
BIOL 402: General Physiology	4	
CHEM 309: Biochemistry I	4	
General Education Elective	3	
<b>TOTAL CREDITS</b>	<b>61</b>	

**Additional Credits Needed:**

Total credits to be taken at BSU: **61**

The suggested course sequence is as follows:

**Year One - Community College of Baltimore County**

Fall Semester	Cr
CHEM 131- General Chemistry I	4
CSIT 101- Technology and Information Systems	3
ENGL 101- College Composition I	3
MATH 251- Calculus I	4
<b>Total Credits</b>	<b>14</b>

**Year Two - Community College of Baltimore County**

Fall Semester	Cr
BIOL 111- Biology II: Evolution & Ecology	4
Gen. Ed. Elective ~ Arts and Humanities	3
Gen. Ed. Elective ~ Social and Behavioral Sciences	3
CHEM 200 & 201: Organic Chemistry Sequence; Organic Chemistry I w/ Lab	4
Program Electives (6 needed) BIOL 230: Microbiology	4
<b>Total Credits</b>	<b>18</b>

**Year Three – Bowie State University**

Fall Semester	Cr
ENGL 102: Argument & Research	3
General Education Elective	3
BIOL 3 : Advanced Biology Elective	4
HEED 102: Life & Health or HEED 200: Fundamentals of Sex Ed.	3
BIOL 313: Cell Biology	4
<b>Total Credits</b>	<b>17</b>

**Year Four – Bowie State University**

Fall Semester	Cr
COSC 112: Computer Science I	4
PHYS 252: Principles of Physics II	4
BIOL 403: Biology Seminar	2
BIOL 4 : Advanced Biology Elective	4
<b>Total Credits</b>	<b>14</b>

**Year One - Community College of Baltimore County**

Spring Semester	Cr
BIOL 110- Biology I: Molecules & Cells	4
CHEM 133- General Chemistry II	4
CMNS 101- Fundamental of Communication	3
MATH 153- Introduction to Statistical Methods OR MATH 252- Calculus II	4
<b>Total Credits</b>	<b>15</b>

**Year Two - Community College of Baltimore County**

Spring Semester	Cr
BIOL 251- Genetics	4
Gen. Ed. Elective - Social and Behavioral Sciences	3
CHEM 202 & 203: Organic Chemistry Sequence; Organic Chemistry II & Lab	4
Program Electives (6 needed) BIOL 104- General Botany	4
<b>Total Credits</b>	<b>15</b>

**Year Three – Bowie State University**

Spring Semester	Cr
BIOL 3 : Advanced Biology Elective	4
General Education Elective	3
PHYS 251: Principles of Physics I	4
BIOL 303: Molecular Biology	4
<b>Total Credits</b>	<b>15</b>

**Year Four – Bowie State University**

Spring Semester	Cr
BIOL 4 : Advanced Biology Elective	4
BIOL 402: General Physiology	4
CHEM 309: Biochemistry I	4
General Education Elective	3
<b>Total Credits</b>	<b>15</b>

## 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	Deb Baker	Dr. Shirelle Briscoe
Title of staff person	Assistant Registrar	Assistant Vice President for Transfer & General Student Advocacy, Division of Enrollment Management, Office of the Provost
Email address	<a href="mailto:dbaker@ccbcmd.edu">dbaker@ccbcmd.edu</a>	<a href="mailto:sbriscoe@bowiestate.edu">sbriscoe@bowiestate.edu</a>
Telephone Number	443-840-4647	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	Nicole Zampino	Dr. Shirelle Briscoe
Title of person	Coordinator of Transfer and Degree Acceleration	Assistant Vice President for Transfer & General Student Advocacy, Division of Enrollment Management, Office of the Provost
Email address	<a href="mailto:nzairi@ccbcmd.edu">nzairi@ccbcmd.edu</a>	<a href="mailto:sbriscoe@bowiestate.edu">sbriscoe@bowiestate.edu</a>
Telephone Number	443-840-4647	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>Community College of Baltimore County</p> <p>By: <u>[Signature]</u> Name Title <u>JOAQUIN MARTINEZ, Ph.D.</u> <u>PROVOST &amp; VP</u> <u>7/9/2021</u> Date</p>	<p>Bowie State University</p> <p>By: <u>[Signature]</u> Aminta H. Breaux, Ph.D. President, Bowie State University <u>5-26-21</u> Date</p>
---	---

Date of next review (2 years from date of last signature): \_\_\_\_\_

**Articulation Agreement**

**Bowie State University and Community College of Baltimore County**

**Associate of Science Degree in Biology, Concentration of Science**

**To Bachelor of Science Degree in Biology**

**May 25, 2021**

**ACADEMIC PROGRAM ARTICULATION AGREEMENT BETWEEN  
COMMUNITY COLLEGE OF BALTIMORE COUNTY AND BOWIE STATE  
UNIVERSITY REGARDING TRANSFER FROM THE ASSOCIATE OF SCIENCE IN  
BIOLOGY, SCIENCE AREA OF CONCENTRATION TO THE BACHELOR OF  
SCIENCE IN BIOLOGY**

This Academic Program Articulation Agreement (“Agreement”) is entered into by and between **Community College of Baltimore County** (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 Biology, Science Area of Concentration** for the completion of the **Bachelor of Science in Biology** (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 Community College of Baltimore County  
Associate of Science in Biology, Science Area of Concentration  
to Bowie State University’s Bachelor of Science in Biology**

This transfer plan is intended for students pursuing **Associate of Science in Biology, Science Area of Concentration** at the Community College of Baltimore County who are interested in pursuing a **Bachelor of Science in Biology**. 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 Transfer Admissions at [ugradadmissions@bowiestate.edu](mailto:ugradadmissions@bowiestate.edu).

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

Community College of Baltimore County Requirements A.S. Biology, Science AOC	CCBC Credits	Bowie State University Course Equivalency B.S. Biology	BSU Credits	Notes
<b>General Education Requirements</b>				
BIOL 110-Biology I: Molecules & Cells	4	BIOL 102-Introductory Biology	4	
BIOL 111-Biology II: Evolution & Ecology	4	BIOL 103-General Zoology	4	
CMNS 101-Fundamental of Communication	3	COMM 101-Oral Communications	3	Satisfies Arts & Humanities Elective
CSIT 101-Technology and Information Systems	3		3	Free Elective
ENGL 101-College Composition I	3	ENGL 101-Expository Writing	3	
MATH 251-Calculus I	4	MATH 225-Calculus I	4	
<b>General Education Electives<sup>1</sup></b>				
Arts and Humanities	3	Arts & Humanities Elective	3	Ensure chosen course is transferable (see options below)
Social and Behavioral Sciences	6	Social Sciences Electives	6	Ensure chosen courses are transferable (see options below)
<b>Program Requirements</b>				
BIOL 251-Genetics	4	BIOL 209- General Genetics	4	
CHEM 131-General Chemistry I	4	CHEM 107-General Chemistry I	4	
CHEM 133-General Chemistry II	4	CHEM 108-General Chemistry II	4	
<b>Program Electives</b>				
CHEM 200-Organic Chemistry I & CHEM 201-Organic Chemistry I Lab (BSU highly recommends)	4	CHEM 201-Organic Chemistry I	4	
CHEM 202-Organic Chemistry II & CHEM 203-Organic Chemistry II Lab (BSU highly recommends)	4	CHEM 202-Organic Chemistry II	4	

<sup>1</sup> One general education course must fulfill the diversity course requirement

Community College of Baltimore County Requirements A.S. Biology, Science AOC	CCBC Credits	Bowie State University Course Equivalency B.S. Biology	BSU Credits	Notes
BIOL 104-Introductory Botany	4	BIOL 105-General Botany	4	
BIOL 230-Microbiology (BSU highly recommends)	4	BIOL 309-Microbiology I	4	
Choose additional elective from list: BIOL 106-Zoology, MATH 153- Introduction to Statistical Methods, MATH 252- Calculus II	4	Depends on course	4	
<b>Total Credits</b>	<b>62</b>	<b>Total Credits</b>	<b>62</b>	

To assist with the smooth transfer of General Education courses, the following equivalency list has also been prepared:

#### Arts and Humanities Suggested Pairings

CCBC Course	Credits	Bowie Equivalency	Credits
ENGL 218 - African American Literature I	3	ENGL 212 - The African American Literary Imagination	3
MUSC 101 - Music Fundamentals	3	MUSC 101 - Fundamentals of Music	3
PHIL 101 - Introduction to Philosophy	3	PHIL 101 - Introduction to Philosophy	3
PHIL 103 - Critical Thinking	3	PHIL 103 - Introduction to the Principles of Reasoning	3
WLSP 101 - Introductory Spanish I	3	SPAN 101 - First-Year Spanish I	3
WLSP 102 - Introductory Spanish II	3	SPAN 102 - First-Year Spanish II	3
THTR 101 - Introduction to the Theatre	3	THEA 105 - Introduction to Theatre	3
WLFR 101 - Introductory French I	3	FREN 101 - First-Year French I	3
WLFR 102 - Introductory French II	3	FREN 102 - First-Year French II	3
ENGL 205 - World Literature I	3	ENGL 211 - Literatures of the World	3

#### Social and Behavioral Sciences Suggested Pairings

CCBC Course	Credits	Bowie Equivalency	Credits
ANTH 101 - Introduction to Cultural Anthropology	3	ANTH 102 - Introduction to Anthropology	3
CRJU 101 - Introduction to Criminal Justice	3	CRJU 201 - Introduction to Law Enforcement & CRJU	3
ECON 201 - Introduction to Macro-Economic Principles	3	ECON 211 - Principles of Macroeconomics	3
ECON 202 - Introduction to Micro-Economic Principles	3	ECON 212 - Principles of Microeconomics	3
POLS 111 - Introduction to Political Science	3	GOVT 130 - Introduction to Political Science	3

POLS 131 - Comparative Government and Politics	3	GOVT 140 - Introduction to Comparative Politics	3
HIST 112 - History of the United States II	3	HIST 202 - United States History Since 1865	3
PSYC 101 - Introduction to Psychology	3	PSYC 101 - General Psychology	3
SOCL 101 - Introduction to Sociology	3	SOCI 101 - Introduction to Sociology	3

### Remaining Courses

Students who complete the plan above including all recommended courses and earn the **A.S. in Biology, Science Area of Concentration** will take the following courses at Bowie State University to meet their graduation requirements. Students who transfer before completing the **Associate of Science in Biology Science 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 Biology** requires students to successfully complete the following course work:

Bowie State University Course	Credits	Explanation
ENGL 102-Argument & Research	3	
General Education Elective	3	
BIOL 3XX-Advanced Biology Elective	4	
HEED 102-Life & Health or HEED 200-Fundamentals of Sex Education	3	
BIOL 313-Cell Biology	4	
BIOL 3XX-Advanced Biology Elective	4	
General Education Elective	3	
PHYS 251-Principles of Physics I	4	
BIOL 303-Molecular Biology	4	
COSC 112-Computer Science I	4	
PHYS 252-Principles of Physics II	4	
BIOL 403-Biology Seminar	2	
BIOL 4XX-Advanced Biology Elective	4	
BIOL 4XX-Advanced Biology Elective	4	
BIOL 402-General Physiology	4	
CHEM 309-Biochemistry I	4	
General Education Elective	3	
<b>TOTAL CREDITS</b>	<b>61</b>	

### Additional Credits Needed:

Total credits to be taken at BSU: **61**

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

<b>YEAR ONE FALL SEMESTER at CCBC (14 credits)</b>	<b>Credits</b>	<b>Notes</b>
CHEM 131- General Chemistry 1	4	
CSIT 101- Technology and Information Systems	3	
ENGL 101- College Composition 1	3	
MATH 251- Calculus I	4	
<b>YEAR ONE SPRING SEMESTER at CCBC (15 credits)</b>	<b>Credits</b>	<b>Notes</b>
BIOL 110- Biology I: Molecules & Cells	4	
CHEM 133- General Chemistry II	4	
CMNS 101- Fundamental of Communication	3	
MATH 153- Introduction to Statistical Methods OR MATH 252- Calculus II	4	
<b>YEAR TWO FALL SEMESTER at CCBC (18 credits)</b>	<b>Credits</b>	<b>Notes</b>
BIOL 111- Biology II: Evolution & Ecology	4	
Gen. Ed. Elective – Arts and Humanities	3	
Gen. Ed. Elective – Social and Behavioral Sciences	3	
CHEM 200 & 201: Organic Chemistry I w/ Lab	4	
Program Elective	4	
<b>YEAR TWO SPRING SEMESTER at CCBC (15 credits)</b>	<b>Credits</b>	<b>Notes</b>
BIOL 251- Genetics	4	
Gen. Ed. Elective - Social and Behavioral Sciences	3	
CHEM 202 & 203: Organic Chemistry II & Lab	4	
Program Elective	4	
<b>YEAR THREE FALL SEMESTER at BSU (17 credits)</b>	<b>Credits</b>	<b>Notes</b>
ENGL 102: Argument & Research	3	
General Education Elective	3	
BIOL 3__ : Advanced Biology Elective	4	
HEED 102: Life & Health or HEED 200: Fundamentals of Sex Education	3	
BIOL 313: Cell Biology	4	
<b>YEAR THREE SPRING SEMESTER at BSU (15 credits)</b>	<b>Credits</b>	<b>Notes</b>
BIOL 3__ : Advanced Biology Elective	4	
General Education Elective	3	
PHYS 251: Principles of Physics I	4	
BIOL 303: Molecular Biology	4	
<b>YEAR FOUR FALL SEMESTER (14 credits)</b>	<b>Credits</b>	<b>Notes</b>
COSC 112: Computer Science I	4	
PHYS 252: Principles of Physics II	4	
BIOL 403: Biology Seminar	2	
BIOL 4__ : Advanced Biology Elective	4	
<b>YEAR FOUR SPRING SEMESTER at BSU (15 credits)</b>	<b>Credits</b>	<b>Notes</b>
BIOL 4__ : Advanced Biology Elective	4	



BIOL 402: General Physiology	4	
CHEM 309: Biochemistry I	4	
General Education Elective	3	

## 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	Deb Baker	Dr. Shirelle Briscoe
Title of staff person	Assistant Registrar	Assistant Vice President for Transfer & General Student Advocacy, Division of Enrollment Management & Office of the Provost
Email address	dbaker@ccbcmd.edu	sbriscoe@bowiestate.edu
Telephone Number	443-840-4647	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	Nicole Zampino	Dr. Shirelle Briscoe
Title of person	Coordinator of Transfer and Degree Acceleration	Assistant Vice President for Transfer & General Student Advocacy, Division of Enrollment Management & Office of the Provost
Email address	<a href="mailto:nzampino@ccbcmd.edu">nzampino@ccbcmd.edu</a>	<a href="mailto:sbriscoe@bowiestate.edu">sbriscoe@bowiestate.edu</a>
Telephone Number	443-840-4647	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**


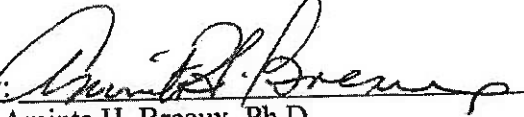
There are no third-party beneficiaries to this Agreement.

**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.

Community College of Baltimore County	Bowie State University
By: 	By: 
Name	Aminta H. Breaux, Ph.D.
Title JOAQUIN MARTINEZ, Ph.D. PROVOST & VP	President, Bowie State University
Date 7/9/2021	Date 5-26-21

Date of next review (2 years from date of last signature): \_\_\_\_\_

**Articulation Agreement**

**Bowie State University and Community College of Baltimore County**

**Associate of Science Degree in Chemistry, Concentration of Science**

**To Bachelor of Science Degree in Chemistry**

**May 25, 2021**

**ACADEMIC PROGRAM ARTICULATION AGREEMENT BETWEEN  
COMMUNITY COLLEGE OF BALTIMORE COUNTY AND BOWIE STATE  
UNIVERSITY REGARDING TRANSFER FROM THE ASSOCIATE OF SCIENCE IN  
CHEMISTRY, SCIENCE AREA OF CONCENTRATION TO THE BACHELOR OF  
SCIENCE IN CHEMISTRY**

This Academic Program Articulation Agreement ("Agreement") is entered into by and between **Community College of Baltimore County** (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 Chemistry, Science Area of Concentration** for the completion of the **Bachelor of Science in Chemistry**(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 Community College of Baltimore County  
Associate of Science in Chemistry, Science Area of Concentration to Bowie State  
University's Bachelor of Science in Chemistry**

This transfer plan is intended for students pursuing **Associate of Science in Chemistry, Science Area of Concentration** at the Community College of Baltimore County who are interested in pursuing a **Bachelor of Science in Chemistry**. 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 Transfer Admissions at [ugradadmissions@bowiestate.edu](mailto:ugradadmissions@bowiestate.edu).

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

Community College of Baltimore County Course Requirements A.S. Chemistry, Science AOC	CCBC Credits	Bowie State University Course Equivalency B.S. Chemistry	BSU Credits	Notes
<b>General Education Requirements</b>				
CHEM 131-General Chemistry I	4	CHEM 107-General Chemistry I	4	
CMNS 101-Fundamental of Communication	3	COMM 101-Oral Communications	3	Satisfies Arts & Humanities Elective
ENGL 101-College Composition I	3	ENGL 101-Expository Writing	3	
MATH 251-Calculus I	4	MATH 225-Calculus I	4	
PHYS 151-General Physics I	4	PHYS 271-Physics I	4	
<b>General Education Electives<sup>1</sup></b>				
Arts and Humanities	3	Arts and Humanities elective	3	Ensure chosen courses are transferable
CSIT 111-Information Technology (BSU highly recommends)	3	COSC 112-Computer Science I	3	
Social and Behavioral Sciences	6	Social Sciences Electives	6	Ensure chosen courses are transferable
<b>Program Requirements</b>				
BIOL 110-Biology I	4	BIOL 102-Introductory Biology	4	
CHEM 133-General Chemistry II	4	CHEM 108-General Chemistry II	4	
CHEM 200-Organic Chemistry I & CHEM 201-Organic Chemistry I Lab	4	CHEM 201-Organic Chemistry I	4	
CHEM 202-Organic Chemistry II & CHEM 203-Organic Chemistry II Lab	4	CHEM 202 Organic Chemistry II	4	
MATH 252-Calculus II	4	MATH 226-Calculus II	4	
MATH 259-Elementary Differential Equations	3	Free Elective	3	
PHYS 251-General Physics II	4	PHYS 272-Physics II	4	
<b>Program Elective</b>				
ENGL 102-College Composition II (BSU highly recommends)	3	ENGL 102-Argument & Research	3	
<b>Total Credits</b>	<b>60</b>	<b>Total Credits</b>	<b>60</b>	

<sup>1</sup> One general education course must fulfill the diversity course requirement

To assist with the smooth transfer of General Education courses, the following equivalency list has also been prepared:

**Arts and Humanities Suggested Pairings**

CCBC Course	Credits	Bowie Equivalency	Credits
ENGL 218 - African American Literature I	3	ENGL 212 - The African American Literary Imagination	3
MUSC 101 - Music Fundamentals	3	MUSC 101 - Fundamentals of Music	3
PHIL 101 - Introduction to Philosophy	3	PHIL 101 - Introduction to Philosophy	3
PHIL 103 - Critical Thinking	3	PHIL 103 - Introduction to the Principles of Reasoning	3
WLSP 101 - Introductory Spanish I	3	SPAN 101 - First-Year Spanish I	3
WLSP 102 - Introductory Spanish II	3	SPAN 102 - First-Year Spanish II	3
THTR 101 - Introduction to the Theatre	3	THEA 105 - Introduction to Theatre	3
WLFR 101 - Introductory French I	3	FREN 101 - First-Year French I	3
WLFR 102 - Introductory French II	3	FREN 102 - First-Year French II	3
ENGL 205 - World Literature I	3	ENGL 211 - Literatures of the World	3

**Social and Behavioral Sciences Suggested Pairings**

CCBC Course	Credits	Bowie Equivalency	Credits
ANTH 101 - Introduction to Cultural Anthropology	3	ANTH 102 - Introduction to Anthropology	3
CRJU 101 - Introduction to Criminal Justice	3	CRJU 201 - Introduction to Law Enforcement & CRJU	3
ECON 201 - Introduction to Macro-Economic Principles	3	ECON 211 - Principles of Macroeconomics	3
ECON 202 - Introduction to Micro-Economic Principles	3	ECON 212 - Principles of Microeconomics	3
POLS 111 - Introduction to Political Science	3	GOVT 130 - Introduction to Political Science	3
POLS 131 - Comparative Government and Politics	3	GOVT 140 - Introduction to Comparative Politics	3
HIST 112 - History of the United States II	3	HIST 202 - United States History Since 1865	3
PSYC 101 - Introduction to Psychology	3	PSYC 101 - General Psychology	3



SOCL 101 - Introduction to Sociology	3	SOCI 101 - Introduction to Sociology	3
--------------------------------------	---	--------------------------------------	---

**Remaining Courses**

Students who complete the plan above including all recommended courses and earn the A.S. in Chemistry will take the following courses at Bowie State University to meet their graduation requirements. Students who transfer before completing the Associate of Science in Chemistry 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 Chemistry requires students to successfully complete the following course work:

Bowie State University Course	Credits	Explanation
CHEM 301-Quantitative Analysis (Analytical Chemistry)	3	
CHEM 311-Quantitative Analysis Lab	2	
CHEM 305-Inorganic Chemistry	4	
HIST 114 or HIST 115-Afro American History	3	
Arts and Humanities Elective	3	
CHEM 302-Instrumental Analysis	4	
CHEM 309-Biochemistry I	3	
CHEM 462-Biochemistry Lab	1	
CHEM 406-Research in Chemistry	3	
Free Elective	4	
CHEM 401-Physical Chemistry I	5	
CHEM 405-Seminar in Chemistry	2	
BIOL, COSC, or CHEM Elective (400 Level)	4	
Free Elective	4	
CHEM 402-Physical Chemistry II	5	
BIOL, COSC, CHEM Elective (400 Level)	4	
Free Elective	4	
Free Elective	2	
<b>TOTAL CREDITS</b>	<b>60</b>	

**Additional Credits Needed:**

Total credits to be taken at BSU: 60

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

<b>YEAR ONE FALL SEMESTER at CCBC (14 credits)</b>	<b>Credits</b>	<b>Notes</b>
ENGL 101 – Introduction to College Writing	3	
MATH 251 - Calculus I	4	
CHEM 131 - General Chemistry I	4	
CSIT 101 or CSIT 111- Information Technology Elective	3	
<b>YEAR ONE SPRING SEMESTER at CCBC (14 credits)</b>	<b>Credits</b>	<b>Notes</b>
CMNS 101 Foundations of Communication	3	
CHEM133 General Chemistry II	4	
MATH 252- Calculus II	4	
Arts and Humanities	3	
<b>YEAR TWO FALL SEMESTER at CCBC (17 credits)</b>	<b>Credits</b>	<b>Notes</b>
CHEM 200- Organic Chemistry I	3	
CHEM 201- Organic Chemistry 1 Laboratory	1	
PHYS 151- General Physics I	4	
MATH 259- Elementary Differential Equations	3	
Social and Behavioral Science Elective	3	
Program Elective	3	
<b>YEAR TWO SPRING SEMESTER at CCBC (15 credits)</b>	<b>Credits</b>	<b>Notes</b>
BIOL 110- Biology I	4	
PHYS 251- General Physics II	4	
CHEM 202- Organic Chemistry I	3	
CHEM 203- Organic Chemistry 1 Laboratory	1	
Behavioral and Social Sciences Distribution	3	
<b>YEAR THREE FALL SEMESTER at BSU (15 credits)</b>	<b>Credits</b>	<b>Notes</b>
CHEM 301 Quantitative Analysis (Analytical Chemistry)	3	
CHEM 311 Quantitative Analysis Lab	2	
CHEM 305 Inorganic Chemistry	4	
HIST 114 or HIST 115	3	
Arts and Humanities Elective	3	
<b>YEAR THREE SPRING SEMESTER at BSU (15 credits)</b>	<b>Credits</b>	<b>Notes</b>
CHEM 302 Instrumental Analysis	4	
CHEM 309 Biochemistry I	3	
CHEM 462 Biochemistry Lab	1	
CHEM 406 Research in Chemistry	3	
Free Elective	4	
<b>YEAR FOUR FALL SEMESTER (15 credits)</b>	<b>Credits</b>	<b>Notes</b>
CHEM 401 Physical Chemistry I	5	
CHEM 405 Seminar in Chemistry	2	
BIOL/ COSC/CHEM Elective (400 Level)	4	
Free Elective	4	
<b>YEAR FOUR SPRING SEMESTER at BSU (15 credits)</b>	<b>Credits</b>	<b>Notes</b>

CHEM 402 Physical Chemistry II	5	
BIOL/ COSC/ CHEM Elective (400 Level)	4	
Free Elective	4	
Free Elective	2	

## 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	Deb Baker	Dr. Shirelle Briscoe
Title of staff person	Assistant Registrar	Assistant Vice President for Transfer & General Student Advocacy, Division of Enrollment Management & Office of the Provost
Email address	<a href="mailto:dbaker@ccbcmd.edu">dbaker@ccbcmd.edu</a>	<a href="mailto:sbriscoe@bowiestate.edu">sbriscoe@bowiestate.edu</a>
Telephone Number	443-840-4647	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	Nicole Zampino	Dr. Shirelle Briscoe
Title of person	Coordinator of Transfer and Degree Acceleration	Assistant Vice President for Transfer & General Student Advocacy, Division of Enrollment Management & Office of the Provost
Email address	<a href="mailto:nzampino@ccbcmd.edu">nzampino@ccbcmd.edu</a>	<a href="mailto:sbriscoe@bowiestate.edu">sbriscoe@bowiestate.edu</a>
Telephone Number	443-840-4647	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>Community College of Baltimore County</p> <p>By: <u>[Signature]</u> Name <u>JOAQUIN MARTINEZ Ph.D.</u> Title <u>Provost &amp; VP</u> <u>7/9/2021</u> Date</p>	<p>Bowie State University</p> <p>By: <u>[Signature]</u> Aminta H. Breaux, Ph.D. President, Bowie State University <u>5-26-21</u> Date</p>
--	---

Date of next review (2 years from date of last signature): 7/9/23

JUL 6 2021