#### SOUTH DAKOTA BOARD OF REGENTS

# Academic and Student Affairs Consent

**AGENDA ITEM:** 5 – H (2) **DATE:** April 2-3, 2025

\*

#### **SUBJECT**

**Articulation Agreements – SDSMT** 

#### CONTROLLING STATUTE, RULE, OR POLICY

BOR Policy 2.2.2.1 – Seamless Transfer of Credit

BOR Policy 2.2.2.3 – External (Non-Regental System) Accredited University/College

Transfer of Credit

#### BACKGROUND / DISCUSSION

BOR Policy 2.2.2.1 – Seamless Transfer of Credit establishes requirements for institutions seeking to develop program level agreements for interested transfer students. The policy further establishes the distinction between AA, AS, and AAS degrees which are classified as transferable, terminal, or non-transferable degrees (respectively). Agreements established with regionally accredited institutions must be developed in conjunction with the faculty, following all institutional guidelines and are monitored as a function of the institutional program review process. Once approved, the agreements apply only at Regental institutions with equivalent programs.

#### IMPACT AND RECOMMENDATION

To comply with BOR Policy 2.2.2.1, South Dakota School of Mines & Technology requests approval of following articulation agreements:

- Students who have completed an AS degree in Biology (Biochemical & Molecular Biology Track I) at Gillette College may apply up to 60 credits toward the BS in Biology Molecular Biology Specialization.
- Students who have completed an AS degree in General Science at Gillette College may apply up to 60 credits toward the BS in Chemistry.
- Students who have completed an AS degree in Biology (Pre-Professional Program –
  Track III) at Gillette College may apply up to 60 credits toward the BS in PreProfessional Health Sciences.

#### **ATTACHMENTS**

Attachment I – SDSMT Articulation Agreements

\*

#### **DRAFT MOTION 20250402 5-H(2):**

I move to approve South Dakota School of Mines & Technology to finalize and execute the articulation agreements with Gillette College in substantially similar form to that set forth in Attachment I.





### Associate to Bachelors (A2B) Articulation Agreement

Prescribed Curriculum: Gillette College

### Associate of Science - Biology (Biochemical & Molecular Biology - Track I)

General Education Courses			<b>27</b> CREDIT HOURS		
	Credit Hours	Community College Course No.	Course Title or Category		
Science	4	BIOL 1010	General Biology I		
Mathematics	4	MATH 2200	Calculus I		
a I	3 Select 1 cours		Cultural Studies "Global Diversity" or "Foreign Language" categories		
Cultural Studies	3	Select 1 course from	Cultural Studies "Social and Bo	ehavioral Sciences" category	
US & WY Constitutions	3	Select 1 course from	· · · · · · · · · · · · · · · · · · ·	221 US from 1865, HIST 1251 Wyoming an and Wyoming Government	
Communication	3	ENGL 1010	English Composition I		
3 COMM 2010 Public Speaking					
Gen Ed Course of Choice	4	CHEM 1020	General Chemistry I		

Required Courses			<b>14</b> CREDIT HOURS
	Credit Hours	Course No.	Course Title
	1	BIOL 1001	Biology Orientation
	4	BIOL 2020	General Biology II
Biology & Chemistry	3	BIOL 2400	General Ecology
	2	BIOL 2410	Intro to Field Ecology
	4	CHEM 1030	General Chemistry II

Program Elective Courses			<b>19<sup>1</sup>-20<sup>2</sup></b> CREDIT HOURS
	Credit Hours	Course No.	Course Title
General Elective	4	MATH 1400 <sup>1</sup> , or	College Algebra, or
General Liective	4	PHYS 1320 <sup>2</sup>	College Physics II
	3 <sup>1</sup> - 4 <sup>2</sup>	MATH 1405 <sup>1</sup>	Trigonometry, or
	54-	CHEM 2410 <sup>2</sup>	Organic Chemistry I
Program Elective	4	MOLB 2210	General Microbiology
_	4	PHYS 1310	College Physics I
	4	MATH 2205	Calculus II

<sup>&</sup>lt;sup>1</sup>College Algebra-ready Students

Associate of Science-Biology, Biochem/Molecular Total (College Algebra-ready Students):

60<sup>1</sup> CREDIT HOURS

Associate of Science-Biology, Biochem/Molecular Total (Calculus-ready Students): 61<sup>2</sup> CREDIT HOURS

<sup>&</sup>lt;sup>2</sup>Calculus-ready Students

<sup>&</sup>lt;sup>1</sup>56 credits count toward the BS degree requirements for College Algebra-ready Students (MATH 1400 does not apply)

<sup>&</sup>lt;sup>2</sup>60 credits count toward the BS degree requirements for Calculus-ready Students

### Post-Associate Degree Prescribed Curriculum: South Dakota Mines

### Bachelor of Science – Biology, Molecular Biology Specialization

General Education Co	<b>6</b> CREDIT HOURS			
	Credit Community College Course Course		Fitle or Category	
Written Communication	3	ENGL 289	Explorations in STEM Commu	nications
Arts & Humanities	3	Select 1 course from	General Education Arts and H	umanities (Goal 4)

Major Required Courses			<b>26-31</b> CREDIT HOURS
	Credit Hours	Course No.	Course Title
	4	BIOL 371/371L	Genetics w/Lab
	3	BIOL 375	Current Bioethical Issues
	3	BIOL 446	Molecular Cell Biology
	3	BIOL 480	Bioinformatics
Biology & Chemistry	1	BIOL 490	Seminar
	5 <sup>1</sup>	CHEM 326/326L	Organic Chemistry I w/Lab
	5	CHEM 328/328L	Organic Chemistry II w/Lab
	4	CHEM 464/464L	Biochemistry I w/ Lab
	3	CHEM 465	Biochemistry II

<sup>&</sup>lt;sup>1</sup>Gillette College Calculus-ready students will complete all courses listed except CHEM 326/326L (26 total credits of Major Required); College Algebra-ready students will complete all courses listed (31 total credits of Major Required)

Other Required Courses			<b>3-6</b> CREDIT HOURS
	Credit Hours	Course No.	Course Title
Mathematics &	3 <sup>2</sup>	PHYS 209	Fundamentals of Physics II
Physics	3	Select 1 course from	MATH 321 Diff Equations or MATH 381 Probability & Stats

<sup>2</sup>Gillette College Calculus-ready students will complete 3 credits of MATH 321 or MATH 381 only (3 total credits of Other Required); College Algebra-ready students will complete 3 credits of MATH 321 or MATH 381 and 3 credits of PHYS 209 (6 total credits of Other Required)

Elective Courses			<b>17-25</b> CREDIT HOURS
	Credit Hours	Course No.	Course Title
Free Electives	9-13 <sup>3</sup>	Select with Advisor	Free Electives
Specialization Elec	12	Select from List	Molecular Biology Specialization Approved Electives

<sup>&</sup>lt;sup>3</sup>Gillette College Calculus-ready students will complete 13 credits of Free Electives (25 total credits of Electives); College Algebra-ready students will complete 9 credits of Free Electives (21 total credits of Electives)

Post-Associate Degree Total: 60-64<sup>4</sup> CREDIT HOURS

Bachelor of Science – Biology Total: 120 CREDIT HOURS

<sup>&</sup>lt;sup>4</sup>Gillette College Calculus-ready students will complete 60 total credits; College Algebra-ready students will complete 64 total credits (MATH 1400 does not apply)

### **A2B Articulation Agreement Guarantees & Limitations**

#### **GUARANTEES**

#### Students who:

- 1. complete the Associate of Science Biology, Biochemical & Molecular Biology track degree prescribed curriculum at Gillette College exactly as it is identified in this articulation agreement, and
- 2. have the degree conferred on their education record at Gillette College (post high school graduation), and
- 3. earn a minimum cumulative grade point average (GPA) of 2.75 at the Gillette College, and
- 4. pass all 60-61 credits for the associate degree, earning a grade C- or higher in each course

are guaranteed the following at the South Dakota School of Mines and Technology (South Dakota Mines):

- 1. junior standing at South Dakota Mines with no more than 60-64 remaining credits to meet the graduation requirements for the Bachelor of Science degree in Biology, Molecular Biology specialization.
- 2. admission to South Dakota Mines
- 3. admission to the Bachelor of Science degree in Biology, Molecular Biology specialization.

#### **LIMITATIONS**

- 1. This agreement is between the Associate of Science Biology, Biochemical & Molecular Biology track degree at Gillette College and the Bachelor of Science degree in Biology, Molecular Biology specialization at South Dakota Mines only.
- 2. Students must meet all admission and application requirements at South Dakota Mines, including the submission of all required documentation by stated deadlines. Students are advised to contact the Office of Admissions at the South Dakota Mines early in their transfer planning.
- 3. Student must have a cumulative grade point average (GPA) at the Gillette College of 2.75 or higher **and** only courses with grades of C- or higher are guaranteed to be accepted in transfer by South Dakota Mines.
- 4. The credit and course transfer guarantees described in this agreement apply to the Associate of Science Biology, Biochemical & Molecular Biology track degree at Gillette College and the Bachelor of Science degree in Biology, Molecular Biology specialization at South Dakota Mines. If the student changes majors at Gillette College or at South Dakota Mines, the student is no longer covered by this Articulation Agreement and none of the Guarantees of the Agreement apply.
- 5. Students utilizing any form of transfer credit, including but not limited to credit awarded from other higher education institutions, standardized exam (CLEP, AP, DSST, etc.), prior learning assessment (military, certifications, ACE recommended credit, portfolio, challenge exam, work experience equivalent credit, etc.) to satisfy any Associate degree requirements will have those credits evaluated by South Dakota Mines. Should South Dakota Mines not accept the transfer credits accepted by Gillette College, the student will be required to make up the credit deficiency at South Dakota Mines.
- 6. No course substitutions are allowed for the courses listed in the Prescribed Curriculum for the associate degree at Gillette College.

#### **A2B CONTACT INFORMATION**

South Dakota Mines Office of the Provost 605.394.2256 Gillette College Academic & Student Affairs 307.681.6000

Date

#### RENEWAL, REVISION, and TERMINATION

- 1. This Associate to Bachelor Articulation Agreement (A2B) shall be in effect July 1 June 30 each year and will automatically renew annually unless action is taken by South Dakota Mines or Gillette College to terminate or modify it.
- 2. The South Dakota Mines Office of the Provost and the Gillette College Academic and Student Affairs department will collaborate to coordinate a review of the content of the associate and bachelor degrees on a three-year cycle to ensure this A2B is still appropriate.
- 3. South Dakota Mines and the Gillette College each reserve the right to seek revision of this agreement at any time.
- 4. Revision of any content of the agreement (except Appendices content) will be approved by each institution and result in a new agreement being signed, with copies retained by each institution.
  - a. Revision to any Appendices will be communicated to each institution, but do not need to be approved by each institution and will not result in a new agreement being signed by each institution.
- 5. South Dakota Mines and the Gillette College each reserve the right to seek termination of this agreement at any time.
- 6. Should the agreement be terminated, each institution agrees to collaborate and engage in appropriate plans to notify and work with impacted students, providing a minimum one-year advance notice of termination.

#### **APPROVALS**

Brian Tande, Ph.D.

President

South Dakota Mines

Brian.Tande@sdsmt.edu

Date

Janell Oberlander, Ed.D.

President

Gillette College

JOberlander@gillettecollege.org

Lance Roberts, Ph.D. Date
Provost and Vice President for Academic Affairs
South Dakota Mines
Lance.Roberts@sdsmt.edu

Barry Spriggs, Ph.D. Date
Vice President for Academic and Student Affairs
Gillette College
BSpriggs@gillettecollege.org

Zhengtao Zhu, Ph.D. Date
Department Head
South Dakota Mines
Zhengtao.Zhu@sdsmt.edu

Martin Fashbaugh Date
Dean of Arts and Sciences
Gillette College
MFashbaugh@gillettecollege.org

**Appendix A: Course Sequence** 



# Biology - Biochemistry & Molecular Biology Track (A.S.) - College Algebraready Students

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 1400	College Algebra	4*	
Year	CHEM 1020	General Chemistry I	4	
First Semester	ENGL 1010	English Composition I	3	
	BIOL 1001	Biology Orientation	1	
	BIOL 1010	General Biology	4	
		Total Credits	16	

Semester	Course No.	Course Title		Credit Hours	Completed
Freshman	MATH 1405	Trigonometry		3	
Year	CHEM 1030	General Chemistry II		4	
Second Semester	BIOL 2020	General Biology II		4	
Semester	COMM 2010	Public Speaking (Advanced Writing)		3	
			Total Credits	14	

Semester				Completed
Sophomore	BIOL 2400	General Ecology	3	
Year First Semester	BIOL 2410	Intro to Field Ecology	2	
riist semester	Select 1 course from:	Cultural Studies: Foreign Language or Global Diversity areas	3	
	MATH 2200	Calculus I	4	
	Select 1 course from:	Cultural Studies: Social & Behavioral Science area	3	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore	MOLB 2210	General Microbiology	4	
Year	Select 1 course from:	HIST 1211, HIST 1221, HIST 1251, POLS 1000 (US/WY Const)	3	
Second Semester	MATH 2205	Calculus II	4	
Semester	PHYS 1310	College Physics I	4	
		Total Credits	15	

General Education Coursework Total:	27 credit hours
Major and Elective Coursework Total:	33 credit hours
Gillette College Coursework Total:	60* CREDIT HOURS
	(56 Credits Apply)



# Biology, Molecular Biology Specialization (B.S.) – College Algebra-ready Students

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 326/326L	Organic Chemistry I w/Lab	5	
First Semester	ENGL 289	STEM Communication for Technical & Public Audiences	3*	
- FALL	PHYS 209	Fundamentals of Physics II	3	
		General Education – Arts/Humanities (Goal 4)	3*	
		Total Credits	14	

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 328/328L	Organic Chemistry II w/Lab	5	
Second	BIOL 371/371L	Genetics w/Lab	4	
Semester - SPRING	BIOL 375	Current Bioethical Issues	3	
Si Kiivo	Select 1 from	MATH 321 Diff Equations or MATH 381 Prob & Stats	3	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	CHEM 464/464L	Biochemistry I w/Lab	4	
First Semester - FALL	BIOL 446	Molecular Cell Biology	3	
FALL		Free Electives	5	
		Specialization Electives	4	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	CHEM 465	Biochemistry II	3	
Second	BIOL 480	Bioinformatics	3	
Semester - SPRING	BIOL 490	Seminar	1	
Siring		Free Electives	4	
		Specialization Electives	8	
		Total Credits	15	

\*General Education Coursework Total: 6 credit hours

Major and Elective Coursework Total: 58 credit hours

South Dakota Mines Coursework Total: 64 CREDIT HOURS



### Biology - Biochemistry & Molecular Biology Track (A.S.) - Calculus-ready **Students**

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 2200	Calculus I	4	
Year	CHEM 1020	General Chemistry I	4	
First Semester	ENGL 1010	English Composition I	3	
	BIOL 1001	Biology Orientation	1	
	BIOL 1010	General Biology	4	
		Total Credits	16	

Semester	Course No.	Course Title		Credit Hours	Completed
Freshman	MATH 2205	Calculus II		4	
Year	CHEM 1030	General Chemistry II		4	
Second Semester	BIOL 2020	General Biology II		4	
semester	PHYS 1310	College Physics I		4	
			Total Credits	16	

Semester				Completed
Sophomore	CHEM 2410	Organic Chemistry I	4	
Year First Semester	BIOL 2400	General Ecology	3	
i ii st semester	BIOL 2410	Intro to Field Ecology	2	
	COMM 2010	Public Speaking (Advanced Writing)	3	
	PHYS 1320	College Physics II	4*	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore	MOLB 2210	General Microbiology	4	
Year	Select 1 course from:	HIST 1211, HIST 1221, HIST 1251, POLS 1000 (US/WY Const)	3	
Second Semester	Select 1 course from:	Cultural Studies: Foreign Language or Global Diversity areas	3	
Semester	Select 1 course from:	Cultural Studies: Social & Behavioral Science area	3	
İ				
		Total Credits	13	

General Education Coursework Total:	27 credit hours
Major and Elective Coursework Total:	34 credit hours
Gillette College Coursework Total:	61* CREDIT HOURS
	(60 Credits Apply)

### Course Sequence: South Dakota Mines – Fall Semester Start



# Biology, Molecular Biology Specialization (B.S.) – Calculus-ready Students

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year				
First Semester - FALL	ENGL 289	STEM Communication for Technical & Public Audiences	3*	
FALL	Select 1 from	MATH 321 Diff Equations or MATH 381 Prob & Stats	3	
		General Education – Arts/Humanities (Goal 4)	3*	
		Specialization Electives	4	
		Free Electives	1	
		14		

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 328/328L	Organic Chemistry II w/Lab	5	
Second Semester -	BIOL 375	Current Bioethical Issues	3	
SPRING	BIOL 371/371L	Genetics w/ Lab	4	
		Free Electives	3	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	CHEM 464/464L	Biochemistry I w/Lab	4	
First Semester - FALL	BIOL 446	Molecular Cell Biology	3	
- FALL		Free Electives	6	
		Specialization Electives	3	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	CHEM 465	Biochemistry II	3	
Second	BIOL 480	Bioinformatics	3	
Semester - SPRING	BIOL 490	Seminar	1	
Si Kiivo		Free Electives	3	
		Specialization Electives	5	
		Total Credits	15	

*General Education Coursework Total:	6 credit hours
Major and Elective Coursework Total:	54 credit hours
South Dakota Mines Coursework Total:	<b>60</b> CREDIT HOURS





### Associate to Bachelors (A2B) Articulation Agreement

Prescribed Curriculum: Gillette College

#### Associate of Science - General Science

General Education Courses				<b>27</b> CREDIT HOURS	
	Credit Hours	Community College Course No.	Course Little or Category		
Science	4	CHEM 1020	General Chemistry I		
Mathematics	4	MATH 2200	Calculus I		
	3	Select 1 course from	Cultural Studies "Global Diver	sity" or "Foreign Language" categories	
Cultural Studies	3	Select 1 course from	Cultural Studies "Social and Behavioral Sciences" category		
US & WY Constitutions	3	Select 1 course from	HIST 1211 US to 1865, HIST 1221 US from 1865, HIST 1251 Wyoming History, or POLS 1000 American and Wyoming Government		
Communication	3	ENGL 1010	English Composition I		
Communication	3	COMM 2010	Public Speaking	Public Speaking	
Gen Ed Course of Choice	4	CHEM 1030	General Chemistry II		

Elective Courses			33 CREDIT HOURS
Credit Hours		Course No.	Course Title
General Electives	4	CHEM 2420	Organic Chemistry I
	4	CHEM 2440	Organic Chemistry II
	41	MATH 1400, or PHYS 1320	College Algebra, or College Physics II
Program Electives	3 <sup>2</sup>	MATH 1405, or MATH 2250	Trigonometry, or Elementary Linear Algebra
Trogram Liectives	4	MATH 2205	Calculus II
	3	MATH 2310	Applied Differential Equations
	4	PHYS 1310	College Physics I
	7	Select from	Approved courses on Program Electives list

<sup>&</sup>lt;sup>1</sup>College Algebra-ready Students take MATH 1400; Calculus-ready Students take PHYS 1320

Associate of Science – General Science Total: 60<sup>3</sup> CREDIT HOURS

<sup>3</sup>56 credits count toward the BS degree requirements for College Algebra-ready Students (MATH 1400 does not apply)

<sup>&</sup>lt;sup>2</sup>College Algebra-ready Students take MATH 1405; Calculus-ready Students take MATH 2250

### Post-Associate Degree Prescribed Curriculum: South Dakota Mines

### **Bachelor of Science – Chemistry**

General Education Co	<b>6</b> CREDIT HOURS			
	Credit Community College Hours Course No.			
Written Communication	3	ENGL 289	Explorations in STEM Communications	
Arts & Humanities	3	Select 1 course from	General Education Arts and H	umanities (Goal 4)

Major Required Courses			34 CREDIT HOURS
Credit Hours		Course No.	Course Title
	2	CHEM 328L	Organic Chemistry II Lab
	4	CHEM 332/332L	Analytical Chemistry w/ Lab
	3	CHEM 342	Physical Chemistry I
	3	CHEM 352	Systematic Inorganic Chemistry
	3	CHEM 482	Environmental Chemistry
Chemistry	5	CHEM 344/344L	Physical Chemistry II w/ Lab
	4	CHEM 452/452L	Inorganic Chemistry w/ Lab
	3	CHEM 464	Biochemistry I
	1	CHEM 490	Seminar
	1	CHEM 370	Chemical Literature
	5	CHEM 434/434L	Instrumental Analysis w/ Lab

Other Required Courses			<b>0-4</b> credit hours
	Credit Hours	Course No.	Course Title
Physics	41	PHYS 209/209L	Fundamentals of Physics II

<sup>1</sup>Gillette College Calculus-ready students will complete 0 total credits of Other Required; College Algebra-ready students will complete 4 credits of PHYS 209/209L (4 total credits of Major Required)

Elective Courses			<b>20</b> CREDIT HOURS
Credit Hours		Course No.	Course Title
Free Electives	17	Select with Advisor	Free Electives
Program Electives	3	Select 1 course from	CHEM 420, 421, 426, 462, or 465

Post-Associate Degree Total: 60-64<sup>2</sup> CREDIT HOURS

Bachelor of Science – Chemistry Total: 120 CREDIT HOURS

<sup>&</sup>lt;sup>2</sup>Gillette College Calculus-ready students will complete 60 total credits; College Algebra-ready students will complete 64 total credits (MATH 1400 does not apply)

### **A2B Articulation Agreement Guarantees & Limitations**

#### **GUARANTEES**

#### Students who:

- **1.** complete the Associate of Science General Science degree prescribed curriculum at Gillette College exactly as it is identified in this articulation agreement, **and**
- have the degree conferred on their education record at Gillette College (post high school graduation), and
- 3. earn a minimum cumulative grade point average (GPA) of 2.75 at the Gillette College, and
- 4. pass all 60 credits for the associate degree, earning a grade C- or higher in each course

are guaranteed the following at the South Dakota School of Mines and Technology (South Dakota Mines):

- 1. junior standing at South Dakota Mines with no more than 60-64 remaining credits to meet the graduation requirements for the Bachelor of Science degree in Chemistry.
- 2. admission to South Dakota Mines
- 3. admission to the Bachelor of Science degree in Chemistry.

#### **LIMITATIONS**

- 1. This agreement is between the Associate of Science General Science degree at Gillette College and the Bachelor of Science degree in Chemistry at South Dakota Mines only.
- 2. Students must meet all admission and application requirements at South Dakota Mines, including the submission of all required documentation by stated deadlines. Students are advised to contact the Office of Admissions at the South Dakota Mines early in their transfer planning.
- 3. Student must have a cumulative grade point average (GPA) at the Gillette College of 2.75 or higher **and** only courses with grades of C- or higher are guaranteed to be accepted in transfer by South Dakota Mines.
- 4. The credit and course transfer guarantees described in this agreement apply to the Associate of Science General Science degree at Gillette College and the Bachelor of Science degree in Chemistry at South Dakota Mines. If the student changes majors at Gillette College or at South Dakota Mines, the student is no longer covered by this Articulation Agreement and none of the Guarantees of the Agreement apply.
- 5. Students utilizing any form of transfer credit, including but not limited to credit awarded from other higher education institutions, standardized exam (CLEP, AP, DSST, etc.), prior learning assessment (military, certifications, ACE recommended credit, portfolio, challenge exam, work experience equivalent credit, etc.) to satisfy any Associate degree requirements will have those credits evaluated by South Dakota Mines. Should South Dakota Mines not accept the transfer credits accepted by Gillette College, the student will be required to make up the credit deficiency at South Dakota Mines.
- 6. No course substitutions are allowed for the courses listed in the Prescribed Curriculum for the associate degree at Gillette College.

#### **A2B CONTACT INFORMATION**

South Dakota Mines Office of the Provost 605.394.2256 Provost@sdsmt.edu Gillette College Academic & Student Affairs 307.681.6000 admissions@gillettecollege.org

Date

Date

#### **RENEWAL, REVISION, and TERMINATION**

- This Associate to Bachelor Articulation Agreement (A2B) shall be in effect July 1 June 30 each year and will
  automatically renew annually unless action is taken by South Dakota Mines or Gillette College to terminate or
  modify it.
- 2. The South Dakota Mines Office of the Provost and the Gillette College Academic and Student Affairs department will collaborate to coordinate a review of the content of the associate and bachelor degrees on a three-year cycle to ensure this A2B is still appropriate.
- 3. South Dakota Mines and the Gillette College each reserve the right to seek revision of this agreement at any time.
- 4. Revision of any content of the agreement (except Appendices content) will be approved by each institution and result in a new agreement being signed, with copies retained by each institution.
  - a. Revision to any Appendices will be communicated to each institution, but do not need to be approved by each institution and will not result in a new agreement being signed by each institution.
- 5. South Dakota Mines and the Gillette College each reserve the right to seek termination of this agreement at any time.

Date

Date

6. Should the agreement be terminated, each institution agrees to collaborate and engage in appropriate plans to notify and work with impacted students, providing a minimum one-year advance notice of termination.

#### **APPROVALS**

Brian Tande, Ph.D.
President
South Dakota Mines

Brian.Tande@sdsmt.edu

Janell Oberlander, Ed.D.

President
Gillette College

JOberlander@gillettecollege.org

Lance Roberts, Ph.D. Date Provost and Vice President for Academic Affairs South Dakota Mines

Lance.Roberts@sdsmt.edu

Barry Spriggs, Ph.D.
Vice President for Academic and Student Affairs
Gillette College

BSpriggs@gillettecollege.org

Zhengtao Zhu, Ph.D.
Department Head
South Dakota Mines

Zhengtao.Zhu@sdsmt.edu

Martin Fashbaugh Date
Dean of Arts and Sciences

Gillette College

MFashbaugh@gillettecollege.org

**Appendix A: Course Sequence** 

# **Course Sequence:** Gillette College



# **General Science (A.S.)** – *College Algebra-Ready*

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 1400	College Algebra	4*	
Year	CHEM 1020	General Chemistry I	4	
First Semester	ENGL 1010	English Composition I	3	
	Select 1 course from:	Cultural Studies: Global Diversity or Foreign Languages areas	3	
		Total Credits	14	

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 1405	Trigonometry	3	
Year	CHEM 1030	General Chemistry II	4	
Second Semester	Select 1 course from:	US/WY Constitution: HIST 1211, 1221, 1251, or POLS 1000	3	
Semester	COMM 2010	Public Speaking	3	
	Select 1 course from:	GEOL 1100, BIOL 1010, or other approved Program Elective	3	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore	CHEM 2420	Organic Chemistry I	4	
Year First Semester	MATH 2200	Calculus I	4	
riist semester	Select 1 course from:	Cultural Studies: Social & Behavioral Science area	3	
	Select 1 course from:	GEOL 1100, BIOL 1010, or other approved Program Elective	4	
		Total Credits	15	

Semester	Course No.	Course Title		Credit Hours	Completed
Sophomore	CHEM 2440	Organic Chemistry II		4	
Year	MATH 2310	Applied Differential Equations		3	
Second Semester	MATH 2205	Calculus II		4	
Semester	PHYS 1310	College Physics I		4	
			Total Credits	15	

General Education Coursework Total:	27 credit hours
Major and Elective Coursework Total:	33 credit hours
Gillette College Coursework Total:	60* CREDIT HOURS
	(56 Credits Apply)



# Chemistry (B.S.) – College Algebra-Ready: EVEN YEAR START

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 332/332L	Analytical Chemistry w/ Lab	4	
First Semester	CHEM 352	Systematic Inorganic Chemistry	3	
- FALL	CHEM 482	Environmental Chemistry	3	
	ENGL 289	STEM Communication for Technical and Public Audiences	3*	
		General Education – Arts/Humanities (Goal 4)	3*	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 452/452L	Inorganic Chemistry w/ Lab	4	
Second	CHEM 328L	Organic Chemistry II Lab	2	
Semester - SPRING	PHYS 209/209L	Fundamentals of Physics II w/Lab	4	
SFIRING		Free Electives	6	
	•	Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	Select 1 course from	Program Electives: CHEM 420, 421, 426, 462, or 465	3	
First Semester - FALL	CHEM 464	Biochemistry I	3	
FALL	CHEM 342	Physical Chemistry I	3	
		Free Electives	7	
	CHEM 490	Seminar	1	
		Total Credits	17	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	CHEM 370	Chemical Literature	1	
Second	CHEM 434/434L	Instrumental Analysis w/ Lab	5	
Semester - SPRING	CHEM 344/344L	Physical Chemistry II w/ Lab	5	
Si Kiivo		Free Electives	4	
		Total Credits	15	

*General Education Coursework Total	: 6 credit hours
Major and Elective Coursework Total:	58 credit hours
South Dakota Mines Coursework Total:	64 CREDIT HOURS



# Chemistry (B.S.) – College Algebra-Ready: ODD YEAR START

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 332/332L	Analytical Chemistry w/ Lab	4	
First Semester	Chem 464	Biochemistry I	3	
- FALL	ENGL 289	STEM Communication for Technical and Public Audiences	3*	
		General Education – Arts/Humanities (Goal 4)	3*	
		Free Electives	3	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 434/434L	Instrumental Analysis w/ Lab	5	
Second	CHEM 328L	Organic Chemistry II Lab	2	
Semester - SPRING	CHEM 370	Chemical Literature	1	
SPRING	PHYS 209/209L	Fundamentals of Physics II w/Lab	4	
		Free Electives	4	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	Select 1 course from	Program Electives: CHEM 420, 421, 426, 462, or 465	3	
First Semester	CHEM 352	Systematic Inorganic Chemistry	3	
- FALL	CHEM 342	Physical Chemistry I	3	
	CHEM 482	Environmental Chemistry	3	
		Free Electives	4	
	CHEM 490	Seminar	1	
		Total Credits	17	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	CHEM 452/L	Inorganic Chemistry/Lab	4	
Second	CHEM 344/344L	Physical Chemistry II w/ Lab	5	
Semester - SPRING		Free Electives	6	
		Total Credits	15	

*General Education Coursework Total	: 6 credit hours
Major and Elective Coursework Total:	58 credit hours
South Dakota Mines Coursework Total:	64 CREDIT HOURS

# **Course Sequence:** Gillette College



# **General Science (A.S.)** – *Calculus-Ready*

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 2200	Calculus I	4	
Year First Semester	CHEM 1020	General Chemistry I	4	
First Semester	ENGL 1010	English Composition I	3	
	Select 1 course from:	Cultural Studies: Global Diversity or Foreign Languages areas	3	
	Select 1 course from:	GEOL 1100, BIOL 1010, or other approved Program Elective	3	
		Total Credits	17	

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 2205	Calculus II	4	
Year	CHEM 1030	General Chemistry II	4	
Second Semester	PHYS 1310	College Physics I	4	
	COMM 2010	Public Speaking	3	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore	CHEM 2410	Organic Chemistry I	4	
Year First Semester	PHYS 1320	College Physics II	4	
riist semester	Select 1 course from:	US/WY Constitution: HIST 1211, 1221, 1251, or POLS 1000	3	
	MATH 2250	Elementary Linear Algebra	3	
		Total Credits	14	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore	CHEM 2440	Organic Chemistry II	4	
Year	MATH 2310	Applied Differential Equations	3	
Second Semester	Select 1 course from:	Cultural Studies: Social & Behavioral Science area	3	
	Select 1 course from:	GEOL 1100, BIOL 1010, or other approved Program Elective	4	
		Total Credits	14	

General Education Coursework Total:	27 credit hours
Major and Elective Coursework Total:	33 credit hours
Gillette College Coursework Total:	60 CREDIT HOURS



# Chemistry (B.S.) – Calculus-Ready: EVEN YEAR START

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 332/332L	Analytical Chemistry w/ Lab	4	
First Semester	CHEM 352	Systematic Inorganic Chemistry	3	
- FALL	CHEM 482	Environmental Chemistry	3	
	ENGL 289	STEM Communication for Technical and Public Audiences	3*	
		General Education – Arts/Humanities (Goal 4)	3*	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year Second	CHEM 452/452L	Inorganic Chemistry w/ Lab	4	
	CHEM 328L	Organic Chemistry II Lab	2	
Semester - SPRING		Free Electives	9	
Si Kiivo				
		Total Cred	its 15	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year First Semester	Select 1 course from	Program Electives: CHEM 420, 421, 426, 462, or 465	3	
	CHEM 464	Biochemistry I	3	
- FALL	CHEM 342	Physical Chemistry I	3	
	CHEM 490	Seminar	1	
		Free Electives	4	
		Total Credits	14	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year Second Semester - SPRING	CHEM 370	Chemical Literature	1	
	CHEM 434/434L	Instrumental Analysis w/ Lab	5	
	CHEM 344/344L	Physical Chemistry II w/ Lab	5	
		Free Electives	4	
		Total Credits	15	

*General Education Coursework Total	: 6 credit hours
Major and Elective Coursework Total:	54 credit hours
South Dakota Mines Coursework Total:	60 CREDIT HOURS



# Chemistry (B.S.) – Calculus-Ready: ODD YEAR START

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 332/332L	Analytical Chemistry w/ Lab	4	
First Semester	CHEM 342	Physical Chemistry I	3	
- FALL	Chem 464	Biochemistry I	3	
	ENGL 289	STEM Communication for Technical and Public Audiences	3*	
		General Education – Arts/Humanities (Goal 4)	3*	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	CHEM 328L	Organic Chemistry II Lab	2	
Second	CHEM 370	Chemical Literature	1	
Semester - SPRING	CHEM 344/344L	Physical Chemistry II w/ Lab	5	
	CHEM 434/434L	Instrumental Analysis w/ Lab	5	
		Free Electives	2	
	•	Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	CHEM 352	Systematic Inorganic Chemistry	3	
First Semester	CHEM 482	Environmental Chemistry	3	
- FALL	CHEM 490	Seminar	1	
		Free Electives	7	
		Total Credits	14	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	CHEM 452/L	Inorganic Chemistry/Lab	4	
Second	Select 1 course from	Program Electives: CHEM 420, 421, 426, 462, or 465	3	
Semester - SPRING		Free Electives	8	
SI KING				
		Total Credits	15	

\*General Education Coursework Total: 6 credit hours

Major and Elective Coursework Total: 54 credit hours

South Dakota Mines Coursework Total: 60 CREDIT HOURS





### Associate to Bachelors (A2B) Articulation Agreement

### Prescribed Curriculum: Gillette College

### Associate of Science - Biology (Pre-Professional Program - Track III)

General Education Courses		27 - 30 CREDIT HOURS		
	Credit Hours	Community College Course No.	Course Title or Category	
Science	4	BIOL 1010	General Biology I	
Mathematics	4 - 71	MATH 1405, or MATH 2200	Trigonometry, or Calculus I	
	3	Select 1 course from	Cultural Studies "Global Diversity" or "Foreign Language" categories	
Cultural Studies	3	Select 1 course from	Cultural Studies "Social and Behavioral Sciences" category	
US & WY Constitutions	3	HIST 1211, or 1221, or 1251, or POLS 1000	US to 1865, or US from 1865, or Wyoming History, or American and Wyoming Government	
Communication	3 ENGL 1010 English Composition I			
Communication 3		COMM 2010	Public Speaking	
General Education Course of Choice	41	MATH 1400, or PHYS 1320	College Algebra, or College Physics II	

<sup>&</sup>lt;sup>1</sup>College Algebra-ready students take MATH 1400 (4 cr), MATH 1405 (3 cr), and MATH 2200 (4 cr); Calculus-ready students take MATH 2200 (4 cr) and PHYS 1320 (4 cr)

Required Courses			<b>25</b> CREDIT HOURS
	Credit Hours	Course No.	Course Title
	1	BIOL 1001	Biology Orientation
	4	BIOL 2020	General Biology II
	4	CHEM 1020	General Chemistry I
Biology & Chemistry	4	MOLB 2210	General Microbiology
	4	CHEM 1030	General Chemistry II
	4	CHEM 2420	Organic Chemistry I
	4	CHEM 2440	Organic Chemistry II

Program Elective Courses			8 credit hours
Credit Hours		Course No.	Course Title
Duaguaga Flactica	4	PHYS 1310	College Physics I
Program Elective 4		ZOO 2010	Human Anatomy & Physiology I

Associate of Science – Biology, Pre-Professional Total (College Algebra-ready Students):

Associate of Science – Biology, Pre-Professional Total (Calculus-ready Students):

**63**<sup>2</sup> CREDIT HOURS **60** CREDIT HOURS

### Post-Associate Degree Prescribed Curriculum: South Dakota Mines

#### **Bachelor of Science – Pre-Professional Health Sciences**

General Education Co	<b>6</b> CREDIT HOURS			
	Credit Community College Hours Course No.			Title or Category
Written Communication	3	ENGL 289	Explorations in STEM Communications	
Arts & Humanities	3	Select 1 course from	General Education Arts and Humanities (Goal 4)	

Major Required Courses			<b>9</b> CREDIT HOURS
Credit Hours		Course No.	Course Title
	4	BIOL 326/326L	Biomedical Physiology w/Lab
Biology & Chemistry 4		BIOL 371/371L	Genetics w/Lab
	1	BIOL 490	Seminar

Other Required Courses			<b>3-6</b> CREDIT HOURS
	Credit Hours	Course No.	Course Title
Mathematics &	3	Select 1 course from	MATH 281 Stats or MATH 381 Probability & Stats
Physics	3 <sup>1</sup>	PHYS 209	Fundamentals of Physics II

<sup>1</sup>Gillette College Calculus-ready students will complete 3 credits of MATH 281 or MATH 381 only (3 total credits of Other Required); College Algebra-ready students will complete 3 credits of MATH 281 or MATH 381 and 3 credits of PHYS 209 (6 total credits of Other Required)

Elective Courses			40-42 CREDIT HOURS
	Credit Hours	Course No.	Course Title
Biology/Chemistry Upper Division Electives	12	Select with Advisor	BIOL or CHEM prefix courses at the 300 or 400 level
Humanities Upper Division Electives	3	Select with Advisor	Humanities prefix course at the 300 or 400 level
Social Science Upper Division Electives	6	Select with Advisor	Social Science prefix courses at the 300 or 400 level
Free Electives	<b>19 – 21</b> <sup>2</sup>	Select with Advisor	Free Electives

<sup>2</sup>Gillette College Calculus-ready students will complete 21 credits of Free Electives (42 total credits of Electives); College Algebra-ready students will complete 19 credits of Free Electives (40 total credits of Electives)

Post-Associate Degree Total: 60-61<sup>3</sup> CREDIT HOURS

<sup>3</sup>Gillette College Calculus-ready students will complete 60 total credits; College Algebra-ready students will complete 61 total credits

**Bachelor of Science – Pre-Professional Health Sciences Total:** 

**120** CREDIT HOURS

### **A2B Articulation Agreement Guarantees & Limitations**

#### **GUARANTEES**

#### Students who:

- 1. complete the Associate of Science Biology, Pre-Professional Program track degree prescribed curriculum at Gillette College exactly as it is identified in this articulation agreement, **and**
- 2. have the degree conferred on their education record at Gillette College (post high school graduation), and
- 3. earn a minimum cumulative grade point average (GPA) of 2.75 at the Gillette College, and
- 4. pass all 60-63 credits for the associate degree, earning a grade C- or higher in each course

are guaranteed the following at the South Dakota School of Mines and Technology (South Dakota Mines):

- 1. junior standing at South Dakota Mines with no more than 60-61 remaining credits to meet the graduation requirements for the Bachelor of Science degree in Pre-Professional Health Science.
- 2. admission to South Dakota Mines
- 3. admission to the Bachelor of Science degree in Pre-Professional Health Sciences.

#### **LIMITATIONS**

- This agreement is between the Associate of Science Biology, Pre-Professional Program track degree at Gillette College and the Bachelor of Science degree in Pre-Professional Health Sciences at South Dakota Mines only.
- 2. Students must meet all admission and application requirements at South Dakota Mines, including the submission of all required documentation by stated deadlines. Students are advised to contact the Office of Admissions at the South Dakota Mines early in their transfer planning.
- 3. Student must have a cumulative grade point average (GPA) at the Gillette College of 2.75 or higher **and** only courses with grades of C- or higher are guaranteed to be accepted in transfer by South Dakota Mines.
- 4. The credit and course transfer guarantees described in this agreement apply to the Associate of Science Biology, Pre-Professional Program track degree at Gillette College and the Bachelor of Science degree in Pre-Professional Health Sciences at South Dakota Mines. If the student changes majors at Gillette College or at South Dakota Mines, the student is no longer covered by this Articulation Agreement and none of the Guarantees of the Agreement apply.
- 5. Students utilizing any form of transfer credit, including but not limited to credit awarded from other higher education institutions, standardized exam (CLEP, AP, DSST, etc.), prior learning assessment (military, certifications, ACE recommended credit, portfolio, challenge exam, work experience equivalent credit, etc.) to satisfy any associate degree requirements will have those credits evaluated by South Dakota Mines. Should South Dakota Mines not accept the transfer credits accepted by Gillette College, the student will be required to make up the credit deficiency at South Dakota Mines.
- 6. No course substitutions are allowed for the courses listed in the Prescribed Curriculum for the associate degree at Gillette College.

#### **A2B CONTACT INFORMATION**

South Dakota Mines Office of the Provost 605.394.2256 Provost@sdsmt.edu Gillette College
Academic & Student Affairs
307.681.6000
admissions@gillettecollege.org

Date

#### RENEWAL, REVISION, and TERMINATION

- This Associate to Bachelor Articulation Agreement (A2B) shall be in effect July 1 June 30 each year and will
  automatically renew annually unless action is taken by South Dakota Mines or Gillette College to terminate or
  modify it.
- 2. The South Dakota Mines Office of the Provost and the Gillette College Academic and Student Affairs department will collaborate to coordinate a review of the content of the associate and bachelor degrees on a three-year cycle to ensure this A2B is still appropriate.
- 3. South Dakota Mines and the Gillette College each reserve the right to seek revision of this agreement at any time.
- 4. Revision of any content of the agreement (except Appendices content) will be approved by each institution and result in a new agreement being signed, with copies retained by each institution.
  - a. Revision to any Appendices will be communicated to each institution, but do not need to be approved by each institution and will not result in a new agreement being signed by each institution.
- 5. South Dakota Mines and the Gillette College each reserve the right to seek termination of this agreement at any time.
- 6. Should the agreement be terminated, each institution agrees to collaborate and engage in appropriate plans to notify and work with impacted students, providing a minimum one-year advance notice of termination.

#### **APPROVALS**

Brian Tande, Ph.D.

Date

Janell Oberlander, Ed.D.

President

South Dakota Mines

Gillette College

Brian.Tande@sdsmt.edu

JOberlander@gillettecollege.org

Lance Roberts, Ph.D. Date Barry Spriggs, Ph.D. Date Provost and Vice President for Academic Affairs Vice President for Academic and Student Affairs South Dakota Mines Gillette College

Lance.Roberts@sdsmt.edu BSpriggs@qillettecollege.org

Zhengtao Zhu, Ph.D. Date Martin Fashbaugh Date
Department Head Dean of Arts and Sciences
South Dakota Mines Gillette College
Zhengtao.Zhu@sdsmt.edu MFashbaugh@gillettecollege.org

**Appendix A: Course Sequence** 

# Course Sequence: Gillette College



# Biology-*Pre-Professional Program Track* (A.S.) – College Algebra-ready Students

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 1400	College Algebra	4*	
Year	CHEM 1020	General Chemistry I	4	
First Semester	ENGL 1010	English Composition I	3	
	BIOL 1001	Biology Orientation	1	
	BIOL 1010	General Biology	4	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 1405	Trigonometry (Program Elective)	3	
Year	CHEM 1030	General Chemistry II	4	
Second Semester	BIOL 2020	General Biology II	4	
Semester	COMM 2010	Public Speaking (Advanced Writing)	3	
	Select 1 course from:	Cultural Studies: Global Diversity or Foreign Languages areas	3	
	·	17		

Semester				Completed
Sophomore	CHEM 2420	Organic Chemistry I (Program Elective)	4	
Year First Semester	ZOO 2010	Human Anatomy & Physiology I	4	
riist seillestei	Select 1 course from:	Cultural Studies: Social & Behavioral Science area	3	
	MATH 2200	Calculus I	4	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore	MOLB 2210	General Microbiology	4	
Year	Select 1 course from:	HIST 1211, HIST 1221, HIST 1251, POLS 1000 (US/WY Const)	3	
Second Semester	CHEM 2440	Organic Chemistry II (Program Elective)	4	
Semester	PHYS 1310	College Physics I	4	
İ				
		Total Credits	15	

General Education Coursework Total:	30 credit hours
Major and Elective Coursework Total:	33 credit hours
Gillette College Coursework Total:	63* CREDIT HOURS
	(59 Credits Apply)



### Pre-Professional Health Sciences (B.S.) – College Algebra-ready Students

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	ENGL 289	STEM Communication for Technical and Public Audiences	3*	
First Semester	Select 1 from	MATH 281 Stats or MATH 381 Prob & Stats	3	
- FALL	PHYS 209	Fundamentals of Physics II	3	
		General Education – Arts/Humanities (Goal 4)	3*	
		Electives (U/D Biology/Chemistry)	3	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	BIOL 326/326L	Biomedical Physiology w/ Lab	4	
Second	BIOL 371/371L	Genetics w/ Lab	4	
Semester - SPRING		Electives (U/D Social Science)	3	
SF KING		Electives (Free)	6	
		Total Credits	17	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year		Electives (U/D Social Science)	3	
First Semester - FALL		Electives (U/D Biology/Chemistry)	6	
- FALL		Electives (Free)	3	
		Electives (U/D Humanities)	3	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year	BIOL 490	Seminar	1	
Second		Electives (Free)	10	
Semester - SPRING		Electives (U/D Biology/Chemistry)	3	
SI KIIVO				
	•	Total Credits	14	

\*General Education Coursework Total: 6 credit hours Major and Elective Coursework Total: 55 credit hours South Dakota Mines Coursework Total: **61** CREDIT HOURS **Course Sequence:** Gillette College



# Biology-Pre-Professional Program Track (A.S.) – Calculus-ready Students

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	MATH 2200	Calculus I	4	
Year	CHEM 1020	General Chemistry I	4	
First Semester	ENGL 1010	English Composition I	3	
	BIOL 1001	Biology Orientation	1	
	BIOL 1010	General Biology	4	
		Total Credits	16	

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman	Select 1 course from:	Cultural Studies: Global Diversity or Foreign Languages areas	3	
Year	CHEM 1030	General Chemistry II	4	
Second Semester	BIOL 2020	General Biology II	4	
Semester	PHYS 1310	College Physics I	4	
		Total Credits	15	

Semester				Completed
Sophomore	CHEM 2420	Organic Chemistry I (Program Elective)	4	
Year First Semester	PHYS 1320	College Physics II	4	
riist semester	COMM 2010	Public Speaking (Advanced Writing)	3	
	ZOO 2010	Human Anatomy & Physiology I	4	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore	MOLB 2210	General Microbiology	4	
Year	CHEM 2440	Organic Chemistry II (Program Elective)	4	
Second Semester	Select 1 course from:	HIST 1211, HIST 1221, HIST 1251, POLS 1000 (US/WY Const)	3	
Semester	Select 1 course from:	Cultural Studies: Social & Behavioral Science area	3	
		Total Credits	14	

General Education Coursework Total:	27 credit hours
Major and Elective Coursework Total:	33 credit hours
Gillette College Coursework Total:	60 CREDIT HOURS



### Pre-Professional Health Sciences (B.S.) – Calculus-ready Students

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	ENGL 289	STEM Communication for Technical and Public Audiences	3*	
First Semester	Select 1 from	MATH 281 Stats or MATH 381 Prob & Stats	3	
- FALL		Electives (U/D Biology/Chemistry)	3	
		General Education – Arts/Humanities (Goal 4)	3*	
		Free Electives	3	
		Total Credits	15	

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year	BIOL 326/326L	Biomedical Physiology w/ Lab	4	
Second	BIOL 371/371L	Genetics w/ Lab	4	
Semester - SPRING		Electives (U/D Social Science)	3	
Si itilivo		Electives (Free)	6	
		Total Credits	17	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year First Semester - FALL		Electives (U/D Social Science)	3	
		Electives (U/D Biology/Chemistry)	5	
		Electives (Free)	3	
		Electives (U/D Humanities)	3	
		Total Credits	14	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year Second Semester - SPRING	BIOL 490	Seminar	1	
		Electives (Free)	9	
		Electives (U/D Biology/Chemistry)	4	
		14		

\*General Education Coursework Total: 6 credit hours

Major and Elective Coursework Total: 54 credit hours

South Dakota Mines Coursework Total: 60 CREDIT HOURS