

## Articulation Agreement of Academic Programs

Between

Salve Regina University (Salve) and the University of Massachusetts Dartmouth (UMassD)

The above institutions hereby enter into an agreement to provide undergraduates opportunities for students to successfully complete their academic goals, a 3+2 BA/BS in the fields of Chemistry and Bioengineering with a Concentration in Biomedical Engineering.

The goals of this agreement are to:

- Benefit student educational opportunities
- Promote and facilitate an efficient transition of students between institutions
- Establish an agreement to foster collaboration between institutions

Stipulations and Guarantees:

1. UMassD guarantees acceptance of Salve students who complete three years of pre-engineering study in chemistry with a minimum 2.50 GPA.
2. Seventy-four credits will apply towards the UMassD Bioengineering bachelor's degree for students who complete the prescribed courses as designated in the attached articulation, with no grade below C- in courses being used towards the bioengineering degree.
3. Students at Salve Regina who choose to participate in the 3+2 plan should apply to UMassD no later than December of year 3 at Salve.
4. Tuition rates will differ between schools. Once the student matriculates at UMassD, the student will be charged based on UMassD's undergraduate rates. Financial Aid and scholarships may be available to those who qualify.
5. Students with a minimum 3.2 GPA once at UMassD may also be eligible to apply for UMassD's accelerated BS/MS degree allowing students to also earn their MS in Biomedical Engineering & Biotechnology (BMEBT) in one additional year after receiving the BS degree.

Mutual Responsibilities:

1. Both institutions agree to maintain current listings of the course equivalencies. This will be the responsibility of the two designated representatives.
2. Salve and UMassD will incorporate a summary of this agreement into official publications and websites.
3. Salve and UMassD agree to encourage qualified students to participate in this program by providing information, advising and other assistance required to foster a seamless transition from Salve to UMassD.

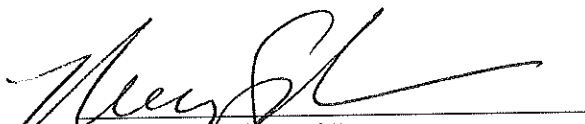
Review/Revision:

This agreement shall be effective beginning Fall 2023 and shall continue until terminated by either party giving one-year written notice to the other party in order to protect all students between institutions. Both institutions will periodically review this agreement and any revisions will be implemented with one-year written notice.

In witness whereof, the authorized representatives of both parties have executed this agreement on February 7, 2023.


Salve Regina University

University of Massachusetts Dartmouth



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Nancy Schreiber, PhD  
Provost & Vice President for Academic  
Affairs



02/17/2023

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Hanchen Huang, PhD  
Provost & Vice Chancellor for Academic  
Affairs

Designated Representatives:

Thomas Arruda, PhD  
Associate Professor  
Chemistry Department

Tracie Ferreira, PhD  
Chairperson and Associate Professor  
Bioengineering Department

Tracy Wallace, M.Ed  
Director of Undergraduate Transfer Affairs  
Enrollment Management

**Proposed Degree Plan for Chemistry (B.A.) 3+2 Pre-Engineering<sup>1,2</sup> leading to BS in Bioengineering: Concentration in Biomedical Engineering<sup>3</sup> at UMass Dartmouth (UMassD)**  
**ODD Entry Year**

	<b>Fall</b>	<b>Spring</b>	<b>UMassD Equivalent</b>	<b>Notes</b>
<b>First Year at Salve Regina</b>				
UNV101: University Seminar I (3 credits) & FYT100: First Year Transitions (1 credit)	X		ENL 101 (3 credits)	
CHM113: General Chemistry I & Lab (4 credits)	X		CHM 151 & CHM 161 (3+1 credits)	
MTH195: Calculus I (4 credits)	X		MTH 151 (4 credits)	
Foreign Language (one course each semester) (3 credits)	X	X	Depends on course transferred	University Studies <sup>4</sup>
Art Core Course (3 credits)	X		Depends on course transferred	University Studies
UNV102: University Seminar II (3 credits)		X	ENL 102 (3 credits)	
CHM114: General Chemistry II & Lab (4 credits)		X	CHM 152 & CHM 162 (3+1 credits)	CHM 162 not applied to BNG degree
MTH196: Calculus II (4 credits)		X	MTH 152 (4 credits)	
History Core Course (3 credits)		X	Depends on course transferred	University Studies
<b>Second Year at Salve Regina</b>				
PHY205: Principles of Physics I & Lab (4 credits)	X		PHY 113 (4 credits)	
MTH203: Calculus III (4 credits)	X		MTH 211 (4 credits)	
CHM205: Organic Chemistry I & Lab (4 credits)	X		CHM 251 (3 credits) & CHM 263 (1 credits)	BNG 219 substitution (3 credits)
CHM301: Analytical Chemistry <sup>5</sup> (4 credits)	X		CHM 204 (3 credits)	BNG 312 substitution (3 credits)
PHY206: Principles of Physics II & Lab (4 credits)		X	PHY 114 (4 credits)	
CHM206: Organic Chemistry II & Lab (4 credits)		X	CHM 252 (3 credits) & CHM 264 (1 credit)	BNG 101 substitution (3 credits)
CHM408: Inorganic Chemistry <sup>6</sup> (4 credits)		X	CHM 431 (3 credits) & CHM 433 (1 credit)	ENL 266 substitution (3 credits)
Literature Core Course (3 credits)		X	Depends on course transferred	University Studies
<b>Third Year at Salve Regina</b>				
CHM305: Physical Chemistry I <sup>7</sup> (4 credits)	X		CHM 315 (4 credits) & CHM 318 (2 credits)	BNG 220 substitution (3 credits)
MTH211: Linear Algebra (3 credits)	X		MTH 221 (3 credits)	Not applied to BNG degree
RTS225: Quest for the Ultimate (3 credits)	X		REL 395	University Studies
PHL225: Quest for the Good Life (3 credits)	X		PHL 200	University Studies

<sup>1</sup> Minimum of 120 credits required for undergraduate degree conferral.

<sup>2</sup> Chemistry (B.A.) 3+2 Pre-Engineering students earn 95 credits at Salve.

<sup>3</sup> Minimum of 121 credits required for undergraduate degree conferral. UMassD degree residency requirement must be met.

<sup>4</sup> Only 15 credits of University Studies coursework are needed for the degree. University Studies will be met by 6 credits of humanities, 6 credits of social science, and 3 credits of either.

<sup>5</sup> CHM301 offered odd year fall semesters.

<sup>6</sup> CHM408 offered even year spring semesters.

<sup>7</sup> CHM305 offered even year fall semesters.

CHM3xx + core course (3 - 4 credits)	X	X	Depends on course transferred	EGR 111 substitution (3 credits)
MTH213: Differential Equations (3 credits)		X	MTH 212 (3 credits)	
BIO112: General Biology II (4 credits)		X	BIO 121 & BIO 131 (3+1 credits)	BNG 255/232 substitution (3+1 credits)
Social Science Core Course (3 credits)		X	Depends on course transferred	University Studies
Social Science Core Course (3 credits)		X	Depends on course transferred	University Studies
<b>Fourth Year at UMass Dartmouth</b>				
EGR 241: Engineering Mechanics I: Statics (3 credits)	X			
BNG 311: Statistics for Bioengineers (3 credits)	X			
BNG 321 & 322: Quantitative Physiology & Lab (3+1 credits)	X			
BNG 428: Medical Device Regulations & Regulatory Strategies <sup>8</sup> (3 credits)	X			
BNG Specialization (3 credits)		X		Can be taken Fall or Spring semester. Selected from approved list.
ECE 201: Circuit Theory I (3.5 credits)		X		
BNG 315 & 317: Biomechanics & Lab (3+1 credits)		X		
BNG 316: Biomaterials (3 credits)		X		
<b>Fifth Year at UMass Dartmouth</b>				
BNG 318 & 320: Biomeasurement & Lab (3+1 credits)	X			
BNG 411: Bioengineering Lab (3 credits)	X			
EGR 497 & 498: Capstone Design I&II (2+2 credits)	X	X		Substituted for Salve Regina requirement of CHM 410 Topics in Chem. & Research Capstone
BNG 423: Biosystems Analysis & Design (3.5 credits)		X		
BNG Specialization (6 credits)	X	X		Selected from approved list.
BNG 451: Ethics for Biomedical Engineers (1 credit)		X		

<sup>8</sup> BNG 428 may be offered in alternating years.

**Proposed Degree Plan for Chemistry (B.A.) 3+2 Pre-Engineering<sup>9,10</sup> leading to BS in Bioengineering: Concentration in Biomedical Engineering<sup>11</sup> at UMass Dartmouth (UMassD)**  
**EVEN Entry Year**

	<b>Fall</b>	<b>Spring</b>	<b>UMassD Equivalent</b>	<b>Notes</b>
<b>First Year at Salve Regina</b>				
UNV101: University Seminar I (3 credits) & FYT100: First Year Transitions (1 credit)	X		ENL 101 (3 credits)	
CHM113: General Chemistry I & Lab (4 credits)	X		CHM 151 & CHM 161 (3+1 credits)	
MTH195: Calculus I (4 credits)	X		MTH 151 (4 credits)	
Foreign Language (one course each semester) (3 credits)	X	X	Depends on course transferred	University Studies <sup>12</sup>
Art Core Course (3 credits)	X		Depends on course transferred	University Studies
UNV102: University Seminar II (3 credits)		X	ENL 102 (3 credits)	
CHM114: General Chemistry II & Lab (4 credits)		X	CHM 152 & CHM 162 (3+1 credits)	CHM 162 not applied to BNG degree
MTH196: Calculus II (4 credits)		X	MTH 152 (4 credits)	
History Core Course (3 credits)		X	Depends on course transferred	University Studies
<b>Second Year at Salve Regina</b>				
PHY205: Principles of Physics I & Lab (4 credits)	X		PHY 113 (4 credits)	
MTH203: Calculus III (4 credits)	X		MTH 211 (4 credits)	
CHM205: Organic Chemistry I & Lab (4 credits)	X		CHM 251 (3 credits) & CHM 263 (1 credits)	BNG 219 substitution (3 credits)
CHM305: Physical Chemistry I <sup>13</sup> (4 credits)	X		CHM 315 (4 credits) & CHM 318 (2 credits)	BNG 220 substitution (3 credits)
PHY206: Principles of Physics II & Lab (4 credits)		X	PHY 114 (4 credits)	
CHM206: Organic Chemistry II & Lab (4 credits)		X	CHM 252 (3 credits) & CHM 264 (1 credit)	BNG 101 substitution (3 credits)
Social Science Core Course (3 credits)		X	Depends on course transferred	University Studies
Literature Core Course (3 credits)		X	Depends on course transferred	University Studies
<b>Third Year at Salve Regina</b>				
CHM301: Analytical Chemistry <sup>14</sup> (4 credits)	X		CHM 204 (3 credits)	BNG 312 substitution (3 credits)
MTH211: Linear Algebra (3 credits)	X		MTH 221 (3 credits)	Not applied to BNG degree
RTS225: Quest for the Ultimate (3 credits)	X		REL 395	University Studies
PHL225: Quest for the Good Life (3 credits)	X		PHL 200	University Studies
CHM3xx elective + Core Course (3 - 4 credits)	X	X	Depends on course transferred	EGR 111 substitution (3 credits)

<sup>9</sup> Minimum of 120 credits required for undergraduate degree conferral.

<sup>10</sup> Chemistry (B.A.) 3+2 Pre-Engineering students earn 95 credits at Salve.

<sup>11</sup> Minimum of 121 credits required for undergraduate degree conferral. UMassD degree residency requirement must be met.

<sup>12</sup> Only 15 credits of University Studies coursework are needed for the degree. University Studies will be met by 6 credits of humanities, 6 credits of social science, and 3 credits of either.

<sup>13</sup> CHM305 offered even year fall semesters.

<sup>14</sup> CHM301 offered odd year fall semesters.

MTH213: Differential Equations (3 credits)		X	MTH 212 (3 credits)	
BIO112: General Biology II (4 credits)		X	BIO 121 & BIO 131 (3+1 credits)	BNG 255/232 substitution (3+1 credits)
CHM408: Inorganic Chemistry <sup>15</sup> (4 credits)		X	CHM 431 (3 credits) & CHM 433 (1 credit)	ENL 266 substitution (3 credits)
Social Science Core Course (3 credits)		X	Depends on course transferred	University Studies
<b>Fourth Year at UMass Dartmouth</b>				
EGR 241: Engineering Mechanics I: Statics (3 credits)	X			
BNG 311: Statistics for Bioengineers (3 credits)	X			
BNG 321 & 322: Quantitative Physiology & Lab (3+1 credits)	X			
BNG 428: Medical Device Regulations & Regulatory Strategies <sup>16</sup> (3 credits)	X			
BNG Specialization (3 credits)		X		Can be taken Fall or Spring semester. Selected from approved list.
ECE 201: Circuit Theory I (3.5 credits)		X		
BNG 315 & 317: Biomechanics & Lab (3+1 credits)		X		
BNG 316: Biomaterials (3 credits)		X		
<b>Fifth Year at UMass Dartmouth</b>				
BNG 318 & 320: Biomeasurement & Lab (3+1 credits)	X			
BNG 411: Bioengineering Lab (3 credits)	X			
EGR 497 & 498: Capstone Design I&II (2+2 credits)	X	X		Substituted for Salve Regina requirement of CHM 410 Topics in Chem. & Research Capstone
BNG 423: Biosystems Analysis & Design (3.5 credits)		X		
BNG Specialization (6 credits)	X	X		Selected from approved list.
BNG 451: Ethics for Biomedical Engineers (1 credit)		X		

<sup>15</sup> CHM408 offered even year spring semesters.

<sup>16</sup> BNG 428 may be offered in alternating years.