

**LEHMAN COLLEGE  
OF THE  
CITY UNIVERSITY OF NEW YORK**

**DEPARTMENT OF BIOLOGICAL SCIENCES**

**CURRICULUM CHANGE**

Name of Program and Degree Award:  
Hegis Number: 4902.00  
Program Code: 41251 – HTHCP-CERT  
Effective Term:

**1. Type of Change:**

Department of Program (changed from Chemistry to Biology), Change in Degree Requirements, Addition of Concentration Requirements

**2. From: ~~Strikethrough~~ the changes  
**Health Careers Preparation (36-73 credits)****

The Health Careers Preparation Post-Baccalaureate Certificate Program (HealthBridge) is aimed primarily at bachelor degree holders who decided to pursue a career in the health professions (medicine, dentistry, pharmacy, optometry, physical therapy, physician assistant studies, or veterinary medicine) while still undergraduates, but did not complete all of the required prerequisites. For some, this is because they have long had a dream of work in the health professions, but chose to defer it during their undergraduate work only to come back to it later in their lives. For others, they have made the decision to pursue a career in the health professions late in their undergraduate study, perhaps as seniors, leaving them insufficient time to complete their coursework. The program will also serve “career-changers,” that is, bachelor degree holders who did not pursue preparation for the health professions as undergraduates, but make the decision subsequent to graduation.

~~While this program will accept students from all backgrounds, we believe it is an especially important option for students who are underrepresented in the health professions, and may therefore be more likely to commit to a career in the health professions relatively late in their academic careers.~~

Students pursuing the HealthBridge certificate must choose one of ~~seven~~ tracks, based on their eventual career goal:

- Bridge to Medicine
- Bridge to Physician Assistant
- Bridge to Physical Therapy
- Bridge to Dental
- Bridge to Pharmacy
- Bridge to Optometry
- Bridge to Veterinary Medicine

Regardless of track, the HealthBridge certificate is divided into two phases, the Foundational phase and the In Depth phase. It is not necessary to complete the Foundational phase in order to apply for admission to the In Depth phase. Students admitted to the Foundational phase must apply for admission to the In Depth phase once they meet those requirements. The certificate is awarded following successful completion of the In Depth phase.

## Requirements

### Admission Requirements

**Type:** Prerequisite

Admissions to both the Foundational and In Depth phases are competitive.

#### The *minimum* standards for admission to the Foundational phase are:

- A bachelor's degree (or its equivalent) from an accredited college or university
- Cumulative undergraduate grade point average (GPA) dependent on track:
  - 2.6 for Bridge to Pharmacy
  - 2.7 for Bridge to ~~Dental~~ or Bridge to Veterinary Medicine
  - 2.9 for Bridge to Optometry, Bridge to Physical Therapy, or Bridge to Physician Assistant
  - 3.0 for Bridge to Medicine
- Placement in to MAT 171 (Elements of Precalculus) or higher
- Personal statement indicating suitability and motivation for the program
- Letter of recommendation
- Interview

#### The *minimum* standards for admission to the In Depth phase are:

- A bachelor's degree (or its equivalent) from an accredited college or university
- Cumulative undergraduate grade point average (GPA) dependent on track:
  - 2.8 for Bridge to Pharmacy
  - 2.9 for Bridge to Dentistry or Bridge to Veterinary Medicine
  - 3.0 for Bridge to Optometry, Bridge to Physical Therapy, or Bridge to Physician Assistant
  - 3.1 for Bridge to Medicine
- Placement in to calculus (this can be achieved by completion of MAT 171+108 or MAT 172 with a C or higher)
- Completion of ENG 111 (first semester English composition) or equivalent
- For Bridge to Medicine, Physician Assistant, Dentistry, Pharmacy, Optometry, and Veterinary Medicine: completion of CHE 168 and CHE 169 (second semester General Chemistry lecture and laboratory) or equivalent
- For Bridge to Physician Assistant Studies, Physical Therapy, and Pharmacy: completion of BIO 181 (first semester Anatomy and Physiology with laboratory) or equivalent
- For Bridge to Medicine, Physician Assistant, Physical Therapy, ~~Dental~~, Pharmacy, and Optometry: completion of PSY 166 (General Psychology) or equivalent
- Personal statement indicating suitability and motivation for the program

- Letter of recommendation
- Interview
- It is not necessary for a student to enroll in the Foundational phase in order to apply for the In Depth phase
- Students admitted to the Foundational phase are not guaranteed admission to the In Depth phase unless they meet the minimum standards specified above

### **Certificate Requirements – Overall**

**Type:** Completion Requirement

**Earn at least 36 credits**

#### **~~Exceptions to Grade Policy~~**

Students must complete at least 18 credits of the certificate in residence at Lehman during the Foundational and/or In Depth phases. Credits earned prior to matriculation in the certificate cannot be applied to the 18-credit minimum, even if they were earned at Lehman College.

Students must also complete at least 50% of the minimum credits required for their track in residency at Lehman, but this requirement can be satisfied in part by courses taken prior to matriculation in to the Certificate.

Example: the Bridge to Optometry track is 39-61 credits, so at least 19.5 credits (50% of 39, the minimum for the track) must be taken in residency at Lehman. At least 18 of those must be taken after matriculation in to either the Foundational or In Depth phase of the certificate program. The remaining 1.5 credits for residency must have been taken at Lehman, but could have been taken prior to matriculation in to the certificate program; for example, during the course of completion of a first degree at Lehman College. The balance of the 39 credits required for the Bridge to Optometry track within the certificate could come from any combination of eligible transfer credits, eligible credits taken in residency prior to matriculation in to the certificate program, and credits taken during the certificate program.

#### **~~Residency in the Certificate~~**

If a student begins the In Depth phase and does not receive C's or greater in all of the courses required for the certificate, they may apply to the Program for a waiver for up to two courses with grades lower than C. If that is not sufficient to allow awarding of the certificate (e.g. they withdrew from one or more required courses), they have one year to take or retake up to 12 credits, paying appropriate tuition, in order to earn the certificate.

#### **Change of Tracks**

At any time, students have the option to apply for a change of track. Approval of changes is at the discretion of the program, but is more likely to be granted for a student requesting a change to a goal with lower minimum GPA requirements (e.g. Bridge to Optometry to Bridge to Dentistry) than for those requesting a

change to a goal with higher GPA requirements, even if they meet the higher requirements.

### **Certificate Requirements – Bridge to Medicine Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 20 credits from the following:**

		<b>Credits</b>
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:**

**Earn at least 38 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	3

PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5
	OR	
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar	1
NSS 350	Pre-Professional Seminar	1
NSS 352	The Medical School Admissions Process	3

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the ~~Certificate~~ in the Bridge to Medicine track, the ~~following~~ courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the ~~following~~ courses, or equivalents, are required for the Bridge to Medicine track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

**Certificate Requirements – Bridge to Physician Assistant Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 28 credits from the following:**

		<b>Credits</b>
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5

CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:  
Earn at least 33 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	3
BIO 238	Genetics	4
BIO 331	Experimental Microbiology	4
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the Certificate in the Bridge to Physician Assistant track, the following courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the following courses, or equivalents, are required for the Bridge to Physician Assistant track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

*\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.*

**Certificate Requirements – Bridge to Physical Therapy Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 25 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
ENG 111	English Composition I	3
ENG 121	English Composition II	3
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MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
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PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:**

**Earn at least 23 credits from the following:**

		<b>Credits</b>
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CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5
	OR	
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the Certificate in the Bridge to Physical Therapy track, the following courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the following courses, or equivalents, are required for the Bridge to Physical Therapy track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

*\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.*

**Certificate Requirements – Bridge to Dental Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 20 credits from the following:**

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**Credits**

CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:  
Earn at least 35 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	3
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5
	OR	

PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

NSS 350 is taken in two semesters: fall and spring.

- To earn the Certificate in the Bridge to Dental track, the following courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the following courses, or equivalents, are required for the Bridge to Dental track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

~~\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.~~

**Certificate Requirements – Bridge to Pharmacy Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 32 credits from the following:**

		<b>Credits</b>
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	<b>AND</b>	

MAT 108	Trigonometry	2
MAT 175	Calculus I	4
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:  
Earn at least 34 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
BIO 331	Experimental Microbiology	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	3
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the ~~Certificate~~ in the Bridge to Pharmacy track, the ~~following~~ courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the ~~following~~ courses, or equivalents, are required for the Bridge to Pharmacy track of the Health Careers Preparation certificate. In

many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

*\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.*

### **Certificate Requirements – Bridge to Optometry Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 24 credits from the following:**

		<b>Credits</b>
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
MAT 175	Calculus I	4
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:**

**Earn at least 39 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
BIO 331	Experimental Microbiology	4

CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	3
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5
	OR	
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the Certificate in the Bridge to Optometry track, the following courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the following courses, or equivalents, are required for the Bridge to Optometry track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

**Certificate Requirements – Bridge to Veterinary Medicine Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:  
Earn at least 21 credits from the following:**

		<b>Credits</b>
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
MAT 175	Calculus I	4

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:  
Earn at least 35 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	3
PHY 166	General Physics I	5
	OR	

PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5
	OR	
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the Certificate in the Bridge to Veterinary Medicine track, the following courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the following courses, or equivalents, are required for the Bridge to Veterinary Medicine track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

~~\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.~~

**Certificate Requirements – Additional Eligible Courses**

Type: Completion Requirement

**Complete ANY of the following Courses:**

		<b>Credits</b>
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
BIO 238	Genetics	4
BIO 331	Experimental Microbiology	4
BIO 400	Biological Chemistry	4
BIO 420	Molecular Biology	4
BIO 435	Neurophysiology	3
BIO 501	Topics in Genetics	4

CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	1.5
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	1.5
CHE 444	Biochemistry I	3
CHE 446	Biochemistry II	3
CHE 447	Biochemistry Laboratory	3
DST 311	Social Science Perspectives on Health and Disability	4
DST 336	Disability, Ethics & the Body	3
ECO 167	Introduction to Microeconomics	3
ENW 3070	Health and Science Writing	3
MAT 108	Trigonometry	2
MAT 128	Foundations of Data Science	3
MAT 132	Introduction to Statistics	4
MAT 155	Calculus I Laboratory	1
MAT 171	Elements of Precalculus	4
MAT 172	Precalculus	4
MAT 175	Calculus I	4
PHI 341	Medical Ethics	3
PHI 434	Neuroethics	3
PHY 166	General Physics I	5
PHY 167	General Physics II	5
PHY 168	Physics I for Scientists and Engineers	5
PHY 169	Physics II for Scientists and Engineers	5
POL 211	Public Policy	3
POL 318	The Politics of Health	3
PSY 166	General Psychology	3
PSY 217	Child Psychology	3
PSY 218	Psychology of Adolescence	3
PSY 219	Psychology of Adulthood and Aging	3
SOC 166	Fundamentals of Sociology	3

*Regardless of track, it is necessary to earn no fewer than 36 credits within the certificate. For any track, additional credits to satisfy the certificate, or for purposes of establishing residency at Lehman or in the certificate, may be drawn from the above list of courses, under the guidance and with the approval of a program advisor.*

3. **To:** Underline the changes

**Health Careers Preparation Certificate (36-73 credits)**

The Health Careers Preparation Post-Baccalaureate Certificate Program (HealthBridge) is aimed primarily at bachelor degree holders who decided to pursue a career in the health professions (medicine, dentistry, pharmacy, optometry, physical therapy, genetic counseling, physician assistant studies, or veterinary medicine) while still undergraduates, but did not complete all of the required prerequisites. For some, this is because they have long had a dream of work in the health professions, but chose to defer it during their undergraduate work only to come back to it later in their lives. For others, they have made the decision to pursue a career in the health professions late in their undergraduate study, perhaps as seniors, leaving them insufficient time to complete their coursework. The program will also serve “career-changers,” that is, bachelor degree holders who did not pursue preparation for the health professions as undergraduates, but make the decision subsequent to graduation.

Students pursuing the HealthBridge certificate must choose one of eight tracks, based on their eventual career goal:

- Bridge to Medicine
- Bridge to Physician Assistant
- Bridge to Physical Therapy
- Bridge to Dental
- Bridge to Pharmacy
- Bridge to Optometry
- Bridge to Veterinary Medicine
- Bridge to Genetic Counseling

Regardless of track, the HealthBridge certificate is divided into two phases, the Foundational phase and the In Depth phase. It is not necessary to complete the Foundational phase in order to apply for admission to the In Depth phase. Students admitted to the Foundational phase must apply for admission to the In Depth phase once they meet those requirements. The certificate is awarded following successful completion of the In Depth phase.

## Requirements

### Admission Requirements

**Type:** Prerequisite

Admissions to both the Foundational and In Depth phases are competitive.

**The *minimum* standards for admission to the Foundational phase are:**

- A bachelor’s degree (or its equivalent) from an accredited college or university
- Cumulative undergraduate grade point average (GPA) dependent on track:
  - 2.6 for Bridge to Pharmacy
  - 2.7 for Bridge to Dentistry or Bridge to Veterinary Medicine
  - 2.9 for Bridge to Optometry, Bridge to Physical Therapy, Bridge to Genetic Counseling, or Bridge to Physician Assistant
  - 3.0 for Bridge to Medicine

- Placement in to MAT 171 (Elements of Precalculus) or higher
- Personal statement indicating suitability and motivation for the program
- Letter of recommendation
- Interview

**The *minimum* standards for admission to the In Depth phase are:**

- A bachelor's degree (or its equivalent) from an accredited college or university
- Cumulative undergraduate grade point average (GPA) dependent on track:
  - 2.8 for Bridge to Pharmacy
  - 2.9 for Bridge to Dentistry or Bridge to Veterinary Medicine
  - 3.0 for Bridge to Optometry, Bridge to Physical Therapy, Bridge to Genetic Counseling, or Bridge to Physician Assistant
  - 3.1 for Bridge to Medicine
- Placement in to calculus (this can be achieved by completion of MAT 171+108 or MAT 172 with a C or higher)
- Completion of ENG 111 (first semester English composition) or equivalent
- For Bridge to Medicine, Physician Assistant, Dentistry, Genetic Counseling, Pharmacy, Optometry, and Veterinary Medicine: completion of CHE 168 and CHE 169 (second semester General Chemistry lecture and laboratory) or equivalent
- For Bridge to Physician Assistant Studies, Physical Therapy, and Pharmacy: completion of BIO 181 (first semester Anatomy and Physiology with laboratory) or equivalent
- For Bridge to Medicine, Physician Assistant, Physical Therapy, Dentistry, Genetic Counseling, Pharmacy, and Optometry: completion of PSY 166 (General Psychology) or equivalent
- Personal statement indicating suitability and motivation for the program
- Letter of recommendation
- Interview
- It is not necessary for a student to enroll in the Foundational phase in order to apply for the In Depth phase
- Students admitted to the Foundational phase are not guaranteed admission to the In Depth phase unless they meet the minimum standards specified above

**Certificate Requirements – Overall**

**Type:** Completion Requirement

**Earn at least 36 credits**

**Residency in the Certificate**

Students must complete at least 18 credits of the certificate in residence at Lehman during the Foundational and/or In Depth phases. Credits earned prior to matriculation in the certificate cannot be applied to the 18-credit minimum, even if they were earned at Lehman College.

Students must also complete at least 50% of the minimum credits required for their track in residency at Lehman, but this requirement can be satisfied in part

by courses taken prior to matriculation in to the Certificate.

Example: the Bridge to Optometry track is 39-61 credits, so at least 19.5 credits (50% of 39, the minimum for the track) must be taken in residency at Lehman. At least 18 of those must be taken after matriculation in to either the Foundational or In Depth phase of the certificate program. The remaining 1.5 credits for residency must have been taken at Lehman, but could have been taken prior to matriculation in to the certificate program; for example, during the course of completion of a first degree at Lehman College. The balance of the 39 credits required for the Bridge to Optometry track within the certificate could come from any combination of eligible transfer credits, eligible credits taken in residency prior to matriculation in to the certificate program, and credits taken during the certificate program.

### **Exceptions to Grade Policy**

If a student begins the In Depth phase and does not receive C's or greater in all of the courses required for the certificate, they may apply to the Program for a waiver for up to two courses with grades lower than C. If that is not sufficient to allow awarding of the certificate (e.g. they withdrew from one or more required courses), they have one year to take or retake up to 12 credits, paying appropriate tuition, in order to earn the certificate.

### **Change of Tracks**

At any time, students have the option to apply for a change of track. Approval of changes is at the discretion of the program, but is more likely to be granted for a student requesting a change to a goal with lower minimum GPA requirements (e.g. Bridge to Optometry to Bridge to Dentistry) than for those requesting a change to a goal with higher GPA requirements, even if they meet the higher requirements.

### **Certificate Requirements – Bridge to Medicine Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 20 credits from the following:**

		<b>Credits</b>
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3

MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:  
Earn at least 39 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	<u>4</u>
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5
	OR	
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar	1
NSS 350	Pre-Professional Seminar	1
NSS 352	The Medical School Admissions Process	3

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the certificate in the Bridge to Medicine track, the above courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the above courses, or equivalents, are required for the Bridge to Medicine track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

**Certificate Requirements – Bridge to Physician Assistant Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 28 credits from the following:**

		<b>Credits</b>
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:**

**Earn at least 34 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	<u>4</u>
BIO 238	Genetics	<u>2</u>
<u>BIO 239</u>	<u>Genetics Laboratory</u>	<u>2</u>
<u>BIO 230</u>	<u>Microbiology</u>	<u>4</u>
	<u>OR</u>	
BIO 331	Experimental Microbiology	4
NSS 350	Pre-Professional Seminar	1
NSS 350	Pre-Professional Seminar	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the certificate in the Bridge to Physician Assistant track, the above courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the following courses, or equivalents, are required for the Bridge to Physician Assistant track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

*\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.*

### **Certificate Requirements – Bridge to Physical Therapy Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 25 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

### **Certificate Requirements:**

**Earn at least 23 credits from the following:**

		<b>Credits</b>
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5

PHY 167	General Physics II	5
OR		
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the certificate in the Bridge to Physical Therapy track, the above courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the above courses, or equivalents, are required for the Bridge to Physical Therapy track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

*\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.*

**Certificate Requirements – Bridge to Dentistry Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 20 credits from the following:**

		<b>Credits</b>
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3

MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:  
Earn at least 36 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	<u>4</u>
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5
	OR	
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the certificate in the Bridge to Dentistry track, the above courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the above courses, or equivalents, are required for the Bridge to Dentistry track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

**Certificate Requirements – Bridge to Pharmacy Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 32 credits from the following:**

		<b>Credits</b>
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
MAT 175	Calculus I	4
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:**

**Earn at least 35 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
<u>BIO 230</u>	<u>Microbiology</u>	<u>4</u>
	<u>OR</u>	
BIO 331	Experimental Microbiology	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	<u>4</u>
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

*NSS 350 is taken in two semesters: fall and spring.*

- To earn the certificate in the Bridge to Pharmacy track, the above courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the above courses, or equivalents, are required for the Bridge to Pharmacy track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

*\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.*

### **Certificate Requirements – Bridge to Optometry Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 24 credits from the following:**

		<b>Credits</b>
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
AND		
MAT 171	Elements of Precalculus	4
AND		
MAT 108	Trigonometry	2
AND		
MAT 175	Calculus I	4
PSY 166	General Psychology	3

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

### **Certificate Requirements:**

**Earn at least 40 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
OR		
<u>BIO 230</u>	<u>Microbiology</u>	<u>4</u>
OR		
BIO 331	Experimental Microbiology	4
OR		
CHE 232	Organic Chemistry Lecture I	4

CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	<u>4</u>
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5
	OR	
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

NSS 350 is taken in two semesters: fall and spring.

- To earn the certificate in the Bridge to Optometry track, the above courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the above courses, or equivalents, are required for the Bridge to Optometry track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

**Certificate Requirements – Bridge to Veterinary Medicine Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 21 credits from the following:**

		<b>Credits</b>
CHE 166	General Chemistry I	4
CHE 167	General Chemistry Laboratory I	1.5
CHE 168	General Chemistry II	4
CHE 169	General Chemistry Laboratory II	1.5
ENG 111	English Composition I	3
ENG 121	English Composition II	3
MAT 171	Elements of Precalculus	4
	AND	
MAT 108	Trigonometry	2
MAT 175	Calculus I	4

\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:  
Earn at least 36 credits from the following:**

		<b>Credits</b>
BIO 166	Principles of Biology: Cells and Genes	4
BIO 167	Principles of Biology: Organisms	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	2
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	2
BIO 400	Biological Chemistry	4
	OR	
CHE 444	Biochemistry I	<u>4</u>
PHY 166	General Physics I	5
	OR	
PHY 168	Physics I for Scientists and Engineers	5
PHY 167	General Physics II	5

OR		
PHY 169	Physics II for Scientists and Engineers	5
NSS 350	Pre-Professional Seminar (Fall)	1
NSS 350	Pre-Professional Seminar (Spring)	1

NSS 350 is taken in two semesters: fall and spring.

- To earn the certificate in the Bridge to Veterinary Medicine track, the above courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the above courses, or equivalents, are required for the Bridge to Veterinary Medicine track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

**Certificate Requirements – Bridge to Genetic Counseling Track**

**Type:** Completion Requirement

**Fulfill ALL of the following requirements:**

**Prerequisites to the Track:**

**Earn at least 20 credits from the following:**

		<b><u>Credits</u></b>
<u>CHE 166</u>	<u>General Chemistry I</u>	<u>4</u>
<u>CHE 167</u>	<u>General Chemistry Laboratory I</u>	<u>1.5</u>
<u>CHE 168</u>	<u>General Chemistry II</u>	<u>4</u>
<u>CHE 169</u>	<u>General Chemistry Laboratory II</u>	<u>1.5</u>
<u>ENG 111</u>	<u>English Composition I</u>	<u>3</u>
<u>ENG 121</u>	<u>English Composition II</u>	<u>3</u>
<u>MAT 171</u>	<u>Elements of Precalculus</u>	<u>4</u>
	<u>AND</u>	
<u>MAT 108</u>	<u>Trigonometry</u>	<u>2</u>

<u>PSY 166</u>	<u>General Psychology</u>	<u>3</u>
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\*MAT 171 and MAT 108, or MAT 172, or placement in to MAT 175

**Certificate Requirements:**

**Earn at least 30 credits from the following:**

		<b><u>Credits</u></b>
<u>BIO 166</u>	<u>Principles of Biology: Cells and Genes</u>	<u>4</u>
<u>BIO 167</u>	<u>Principles of Biology: Organisms</u>	<u>4</u>
<u>CHE 232</u>	<u>Organic Chemistry Lecture I</u>	<u>4</u>
<u>CHE 233</u>	<u>Organic Chemistry Laboratory I</u>	<u>2</u>
<u>CHE 234</u>	<u>Organic Chemistry Lecture II</u>	<u>4</u>
<u>CHE 235</u>	<u>Organic Chemistry Laboratory II</u>	<u>2</u>
<u>BIO 400</u>	<u>Biological Chemistry</u>	<u>4</u>
	<u>OR</u>	
<u>CHE 444</u>	<u>Biochemistry I</u>	<u>4</u>
<u>BIO 238</u>	<u>Genetics</u>	<u>2</u>
<u>BIO 239</u>	<u>Genetics Laboratory</u>	<u>2</u>
<u>NSS 350</u>	<u>Pre-Professional Seminar (Fall)</u>	<u>1</u>
<u>NSS 350</u>	<u>Pre-Professional Seminar (Spring)</u>	<u>1</u>

NSS 350 is taken in two semesters: fall and spring.

- To earn the certificate in the Bridge to Genetic Counseling track, the above courses must be completed, with a grade of C or higher, by the end of the In Depth phase.

**Additional Comments:**

Completion of the above courses, or equivalents, are required for the Bridge to Genetic Counseling track of the Health Careers Preparation certificate. In many cases, students will have completed some or all of these courses prior to matriculation in to the certificate program; in such cases, those courses may fulfill this requirement but are not counted as credits toward completion of the certificate. Any courses from this list taken subsequent to matriculation in to the certificate program will be counted toward the credits earned for the certificate.

*\*Additional credits to bring the certificate total to at least 36 must be selected from the list of Additional Eligible Courses below.*

### **Certificate Requirements – Additional Eligible Courses**

**Type:** Completion Requirement

**Complete ANY of the following Courses:**

		<b>Credits</b>
BIO 181	Anatomy and Physiology I	4
BIO 182	Anatomy and Physiology II	4
<u>BIO 230</u>	<u>Microbiology</u>	<u>4</u>
<u>BIO 233</u>	<u>Human Physiology</u>	<u>4</u>
BIO 238	Genetics	<u>2</u>
<u>BIO 239</u>	<u>Genetics Laboratory</u>	<u>2</u>
<u>BIO 268</u>	<u>Vertebrate Embryology</u>	<u>4</u>
BIO 331	Experimental Microbiology	4
BIO 400	Biological Chemistry	4
BIO 420	Molecular Biology	4
BIO 435	Neurophysiology	3
BIO 501	Topics in Genetics	4
CHE 232	Organic Chemistry Lecture I	4
CHE 233	Organic Chemistry Laboratory I	1.5
CHE 234	Organic Chemistry Lecture II	4
CHE 235	Organic Chemistry Laboratory II	1.5
CHE 444	Biochemistry I	<u>4</u>
CHE 446	Biochemistry II	3
CHE 447	Biochemistry Laboratory	3
DST 311	Social Science Perspectives on Health and Disability	4
DST 336	Disability, Ethics & the Body	3
ECO 167	Introduction to Microeconomics	3
<u>ENG 228</u>	<u>Literature and Medicine</u>	<u>3</u>
<u>ENW 307</u>	<u>Health and Science Writing</u>	3
<u>ENW 345</u>	<u>Writing and Social Issues</u>	<u>3</u>
MAT 108	Trigonometry	2
MAT 128	Foundations of Data Science	3
MAT 132	Introduction to Statistics	4

MAT 155	Calculus I Laboratory	1
MAT 171	Elements of Precalculus	4
MAT 172	Precalculus	4
MAT 175	Calculus I	4
MCS 200	Oral Communication	3
PHI 341	Medical Ethics	3
PHI 434	Neuroethics	3
PHY 166	General Physics I	5
PHY 167	General Physics II	5
PHY 168	Physics I for Scientists and Engineers	5
PHY 169	Physics II for Scientists and Engineers	5
POL 211	Public Policy	3
POL 318	The Politics of Health	3
PSY 166	General Psychology	3
PSY 217	Child Psychology	3
PSY 218	Psychology of Adolescence	3
PSY 219	Psychology of Adulthood and Aging	3
SOC 166	Fundamentals of Sociology	3

*Regardless of track, it is necessary to earn no fewer than 36 credits within the certificate. For any track, additional credits to satisfy the certificate, or for purposes of establishing residency at Lehman or in the certificate, may be drawn from the above list of courses, under the guidance and with the approval of a program advisor.*

**4. Rationale (Explain how this change will impact learning outcomes of the department and Major/Program):**

The plan for the HealthBridge certificate has always envisioned it rotating between Chemistry, Biology, and Physics departments every five years. It is hoped this will allow all three disciplines to continue to inform the pedagogy, curriculum, and development of the program. Thus, this proposal includes the change from the department being listed under Chemistry, as it has been for the past five years, to Biology.

Since the program was established, pre-genetic-counseling has been added to the pre-health tracks officially supported for undergraduates at Lehman. This proposal therefore adds a Bridge to Genetic Counseling track to the HealthBridge certificate so that it mirrors offerings for our first-degree students.

Several new, revived, or revised courses relevant to HealthBridge students have been developed in the past five years, including BIO 233, BIO 239, ENG 228, ENW 345, and

MCS 200. This proposal adds these, as well as BIO 268, which is relevant to the Bridge to Genetic Counseling track.

Schools of the health professions are increasingly accepting either BIO 230 or BIO 331 as satisfying their requirements for a microbiology course. To reflect that, this proposal adds BIO 230 as an alternative to BIO 331.

In recent years, CHE 444 and BIO 238 have each changed their associated credit hours; those changes are reflected in this proposal.

The other changes in this proposal reflect minor corrections to typography and formatting.

5. **Date of departmental approval:** February 17, 2026

A handwritten signature in blue ink, appearing to read 'E. Kennelly', is positioned above the typed name.

Edward Kennelly, Professor & Chair  
Department of Biological Sciences  
CUNY-Lehman College