

**KEAN UNIVERSITY - College of Natural, Applied and Health Sciences**  
**(70304) B.S. in Biology: Health Professions Option 120 Semester Hours (S.H.)**  
**Minimum GPA Required for Declaration: 2.50\*\*\*\***  
**Minimum GPA Required for Major: 2.50\*\*\*\***  
**Overall Minimum GPA Required for Graduation:2.50\*\*\*\***

Effective Date: **Fall 2020**

<b>GENERAL EDUCATION: 32 S.H.</b>		<b>ACADEMIC MAJOR REQUIREMENTS***: 40-41 S.H.</b>	
<b>Foundations Requirements<sup>1</sup></b>	<b>13 S.H.</b>	<b>Major Required Courses***</b>	<b>34 S.H.</b>
GE 1000 Transition to Kean OR GE 3000 Transfer Transitions <sup>2</sup>	1	BIO 1300 General Biology I <sup>6</sup>	4
		BIO 1400 General Biology II <sup>7</sup>	4
ENG 1030 College Composition <sup>3</sup>	3	BIO 3315 Principles of Microbiology <sup>8</sup>	3
MATH 1054 Precalculus <sup>4</sup>	3	BIO 3315L Principles Microbiology Lab <sup>8</sup>	1
COMM 1402 Speech Communication	3	BIO 3403 Anatomy and Physiology I	4
GE 2024 Research & Technology	3	BIO 3404 Anatomy and Physiology II	4
<b>DISCIPLINARY &amp; INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS<sup>1</sup>: 19 SH</b>		BIO 3406 Neuroscience	4
		BIO 3450 Biological Aspects of Aging	3
<b>Humanities (from different areas)</b>	<b>6 S.H.</b>	BIO 3709 Principles of Genetics	4
*ENG 2403 World Literature	3	BIO 4316 Immunology <sup>8</sup>	3
<b>Take one "GE-Approved" Humanities course from one area below:</b>		<b>Major Elective Courses (select from list below):</b>	<b>6-7 S.H.</b>
Fine Arts/Art History	3	BIO 4310 Virology OR BIO 4225 Cell Physiology	4
Philosophy or Religion	3	BCHM 4115 Biochemistry <sup>8</sup>	3
Foreign Language (Must take I and II for credit)	3	BCHM 4115L Biochemistry Lab <sup>8</sup> (W-E)	1
Music or Theatre	3	ENV 3250 Medicinal Botany	3
Interdisciplinary	3	BIO 3317 Infectious Disease	2
<b>Social Sciences: (from different areas)</b>	<b>6 S.H.</b>	BIO 3420 Parasitology OR BIO 3260 Histology	4
*HIST 1062 Worlds of History	3	BIO 4316L Immunology Lab <sup>8</sup>	1
<b>Take one "GE-Approved" Social Sciences course from below:</b>	3	BIO 1996 Res Int 1 <sup>st</sup> Yr Students <sup>9</sup> (optional)	1
Psychology 1000 (required for PT & OT)	3	BIO 4961-4963 Independent Research in Biology	1-3
Economics or ES 1010 (World Geography)	3	BIO 3291-3293 Cooperative Education (Optional Internship)	1-3
Political Science	3	Other Upper Level Biology Course upon Approval	
Sociology or Anthropology	3	<b>Required Courses: Special Concentration 15-18 S.H. (choose ONE)</b>          <b>(see next page for Special Concentration)</b>	
Interdisciplinary	3		
<b>Science &amp; Mathematics:</b>	<b>7 S.H.</b>		
MATH 1016 Statistics	3		
CHEM 1083 Chemistry I <sup>4</sup>	4		
<b>ADDITIONAL REQUIRED COURSES<sup>3</sup>:</b>	<b>20 S.H.</b>		
CHEM 1084 Chemistry II <sup>5</sup>	4		
CHEM 2581 Organic Chemistry Lecture I <sup>5</sup>	3		
CHEM 2581L Organic Chemistry Lab I <sup>5</sup>	1		
CHEM 2582 Organic Chemistry Lecture II	3		
CHEM 2582L Organic Chemistry Lab II	1		
PHYS 2091 or PHYS 2095 Physics I	4		
MATH 2415 Calculus I	4		
<b>Special Notes:</b>			
<sup>1</sup> See Prerequisites & Equivalencies (on page 2).			
<sup>2</sup> University Requirement for Graduation for all undergraduate students that must be satisfied in one of two ways: Complete GE 1000 (all freshmen and transfers entering with 0-29 credits) OR complete GE 3000 (transfers entering with 30 credits or more).			
<sup>3</sup> ENG 1030 requires a grade of C or higher <sup>4-9</sup> See back of page for further explanation		<b>**Major Capstone Course***</b>	<b>3 S.H.</b>
*GE Distribution course required of all students		BIO 4970 Seminar in Integrative Biology	3
<b>**Course required by Major</b>		<b>Free Electives (50% at 3000-4000 level)</b>	<b>6-10 S.H.</b>
***All Major courses require a grade of C or better			
****Minimum cumulative GPA of 2.5 to remain in BS BIO Health Prof major; Graduate Schools likely require a 3.0 minimum for eligibility			
		Revised 2/14/2020	

<b>Physician Assistant Concentration</b>	<b>17 S.H.</b>	<b>Occupational Therapy Concentration</b>	<b>15 S.H.</b>
BIO 3100 Medical Terminology	3	PSY 3110 Lifespan-Developmental Psychology	3
BCHM 4115 Biochemistry <sup>8</sup> + BCM 4115L Biochemistry Lab (W-E)	4	PSY 3200 Psychological Statistics	3
BIO 3400 Zoology: Form & Function	4	PSY 3540 Abnormal Psychology	3
HED 3600 Nutrition or BIO 3200 Bio Food Health/Disease	3	ANTH 1800 Cult Anthro OR SOC 1000 Intro Sociology	3
HED 3515 Wellness	3	OT 2400 Introduction to Occupational Therapy	3
<b>Physical Therapy Concentration</b>	<b>16 S.H.</b>	<b>Speech Language Hearing Concentration</b>	<b>18 S.H.</b>
EXSC 3505 Kinesiology	3	CDD 2253 Scope of Practice: SLP & Audiology	3
EXSC 3510 Physiology of Exercise	3	CDD 2254 Phonetics	3
HED 3600 Nutrition or BIO3200 Bio Food Health/Disease	3	CDD 2256 Early Speech and Language Development	3
PHYS 2092 or PHYS 2096 Physics II	4	CDD 3252 Speech, Language Communication Disorders	3
PSY 3540 Abn Psych or PSY 3110 Lifespan-Dev. Psych	3	CDD 3259 Basic Audiology	3
		CDD 3271 Speech & Hearing Science	3

### **Additional Footnotes**

<sup>4</sup>With qualifying placement test scores, this course may be substituted with an elective

<sup>5</sup>C or higher needed to progress to the next course.

<sup>6</sup>If enrolled before 9/14, substitute BIO 2200.

<sup>7</sup>If enrolled before 9/14, substitute BIO 2400.

<sup>8</sup>Lecture course must be taken concurrently or prior to corresponding lab.

<sup>9</sup>Optional Research Initiative for 1<sup>st</sup> Year Students. Can count as Major or Free Elective

# GENERAL EDUCATION AND UNIVERSITY REQUIREMENTS

## GENERAL EDUCATION INFORMATION AND REQUIREMENTS

### Testing and Placement

Incoming freshmen and transfer students may be placed in specific GE Foundations, Developmental or ESL courses as a result of testing prior to registration. Students may be exempt from testing due to SAT/ACT scores or prior college work.

### Prerequisites and Equivalencies for GE Foundations Courses

#### GE 1000

Required of all freshmen & transfers entering with 0-29 credits

Prereq: None Equiv: ID 1001

#### GE 3000

Required of transfers entering with 30 credits or more Prereq: 30 credits and ENG 1030

#### ENG 1030

Prereq: Placement testing or exemption from placement testing ENG 1025 if required by placement testing

Equiv: ENG 1031/1032, ENG 1033/1034, ENG 1430 (ESL version), ENG 1620 (Honors version), ENG 1020, ENG 1400

#### MATH 1000 or MATH 1044\*

Prereq: MATH 0901 if required by placement testing

\*MATH 1044 is available as a Foundation option for CBPM students only

Equiv of MATH 1000: MATH 1001/1002, MATH 1003/1004, MATH 1051

#### MATH 1010 or 1016 or 1030

Prereq: MATH 0901 if required by placement testing

Co-requisite: Math 0902 (only required, with advisement, based on placement test score and intended major)

#### MATH 1054

Prereq: MATH 0901 if required by placement testing **and** MATH 1000

#### COMM 1402

Prereq: CS 0412 if required by placement testing

ENG 1025 if required by placement testing

May be taken concurrently with ENG 1030

Equiv: COMM 1400

**GE 2021- 2026** *Research and Technology* is offered as college-based course

GE 2021 College of BPM

GE 2022 College of EDU

GE 2023 All College of CLA

GE 2024 College of NAHS & NJCSTM & NWGC (Speech Language and Hearing Science majors)

GE 2025 SFPA & Michael Graves College

GE 2026 Undecided Majors and other special populations

Prereqs: CS 0412 if required by placement testing; ENG 1030 or equivalent course

Equiv: GE 2020

### GE Distribution Courses

#### Approved GE Distribution Courses

All courses taken under the General Education Disciplinary/Interdisciplinary Distribution requirements must be selected from the Approved General Education Distribution Course List.

These courses are designated as GEHU, GESS, and GESM.

GEHU Humanities GESS Social Sciences

GESM Science and Mathematics

#### Required GE Distribution Courses

**ENG 2403** is a required Humanities Distribution course with an emphasis on diversity.

Prereq: CS 0412 if required by placement testing; ENG 1030 or equivalent

Equiv: ENG\*2203

**HIST 1062** is a required Social Sciences Distribution course.

Prereq: None

### Foreign Language Credit

The three credits for a foreign language that may satisfy the GE Disciplinary/Interdisciplinary Distribution Requirement are awarded only upon successful completion of the second of two semesters of study at the introductory or intermediate level.

Credit for the first semester may be used as elective credit.

## UNIVERSITY REQUIREMENTS

### GE 1000/3000 Requirement

All undergraduate students must satisfy this University requirement for graduation by successfully completing one of the following courses at Kean University: GE 1000 Transition to Kean (all freshmen and transfers entering with 0-29 credits) or GE 3000 Transfer Transitions (transfers entering with 30 credits or more).

### Writing-Emphasis Requirement

All students are required to complete one "Writing-Emphasis" course. The "W-E" course must be within the major portion of your program. Consult your major program advisor for specific information.

Note: Equivalent courses may be prior General Education or prerequisite course work taken by students that is now discontinued

**Pre-requisites and co-requisites may change; please consult KeanWise course descriptions for the most current information. Some courses may require approved petitions.**

**Your major's department is located in the Science Building, Room C-124 on Main Campus (telephone 908-737-3650)**