

**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 2019**

<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 <b>OR</b> GE 3000 Transfer Transitions <sup>2</sup>	1	BIO 1300 General Biology I <sup>6</sup>	4	
ENG 1030 College Composition <sup>3</sup>	3	BIO 1400 General Biology II <sup>7</sup>	4	
MATH 1054 Precalculus <sup>4</sup>	3	BIO 3315 Principles of Microbiology <sup>8</sup>	3	
COMM 1402 Speech Communication	3	BIO 3315L Principles Microbiology Lab <sup>8</sup>	1	
GE 2024 Research & Technology	3	BIO 3403 Anatomy and Physiology I	4	
<b>DISCIPLINARY &amp; INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS<sup>1</sup>: 19 SH</b>		BIO 3404 Anatomy and Physiology II	4	
		BIO 3406 Neuroscience	4	
		BIO 3450 Biological Aspects of Aging	3	
		BIO 3709 Principles of Genetics	4	
<b>Humanities 6 S.H. (from different areas)</b>		BIO 4316 Immunology <sup>8</sup>	3	
*ENG 2403 World Literature	3	<b>Major Elective Courses (select from list below): 6-7 S.H.</b>		
<b>Take one "GE-Approved" Humanities course from one area below:</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: 6 S.H. (from different areas)</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			
Sociology or Anthropology	3	<b>Required Courses: Special Options 15-17 S.H. (choose ONE)</b>		
Interdisciplinary	3	<b>Physician Assistant Concentration Courses</b>	<b>17 S.H.</b>	
<b>Science &amp; Mathematics: 7 S.H.</b>		BIO 3100 Medical Terminology	3	
MATH 1016 Statistics	3	BCHM 4115 Biochemistry <sup>8</sup> + BCM 4115L Biochemistry Lab (W-E)	4	
CHEM 1083 Chemistry 1 <sup>4</sup>	4	BIO 3400 Zoology: Form & Function	4	
<b>ADDITIONAL REQUIRED COURSES<sup>3</sup>: 20 S.H.</b>		HED 3600 Nutrition or BIO 3200 Bio Food Health/Disease	3	
CHEM 1084 Chemistry II <sup>5</sup>	4	HED 3515 Wellness	3	
CHEM 2581 Organic Chemistry Lecture I <sup>5</sup>	3	<b>Physical Therapy Concentration Courses</b>	<b>16 S.H.</b>	
CHEM 2581L Organic Chemistry Lab I <sup>5</sup>	1	EXSC 3505 Kinesiology	3	
CHEM 2582 Organic Chemistry Lecture II	3	EXSC 3510 Physiology of Exercise	3	
CHEM 2582L Organic Chemistry Lab II	1	HED 3600 Nutrition or BIO3200 Bio Food Health/Disease	3	
PHYS 2091 or PHYS 2095 Physics I	4	PHYS 2092 or PHYS 2096 Physics II	4	
MATH 2415 Calculus I	4	PSY 3540 Abn Psych or PSY 3110 Lifespan-Dev. Psych	3	
		<b>Occupational Therapy Concentration Courses</b>	<b>15 S.H.</b>	
<b>Special Notes:</b>		PSY 3110 Lifespan-Developmental Psychology	3	
<sup>1</sup> See Prerequisites & Equivalencies (on page 2).		PSY 3200 Psychological Statistics	3	
<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).		PSY 3540 Abnormal Psychology	3	
<sup>3</sup> ENG 1030 requires a grade of C or higher		ANTH 1800 Cult Anthro OR SOC 1000 Intro Sociology	3	
<sup>4-9</sup> See back of page for further explanation		OT 2400 Introduction to Occupational Therapy	3	
*GE Distribution course required of all students		<b>**Major Capstone Course***</b>	<b>3 S.H.</b>	
**Course required by Major		BIO 4970 Seminar in Integrative Biology	3	
***All Major courses require a grade of C or better		<b>Free Electives (50% at 3000-4000 level)</b>	<b>7-10 S.H</b>	
****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 5/5/2019		

# GENERAL EDUCATION AND UNIVERSITY REQUIREMENTS

## 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 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 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

Equiv: ENG 1031/1032, ENG 1033/1034, ENG 1430, ENG 1620, ENG 1020, ENG 1400

#### **MATH 1000 or 1010 or 1016 or 1030**

Prereq: MATH 0901 if required by placement testing

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

#### **MATH 1044 or 1054**

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

#### **COMM 1402**

Prereq: CS 0412 if required by placement testing

ENG 1031/1032 or ENG 1033/1034 if required by placement testing

May be taken concurrently with ENG 1030

Equiv: COMM 1400

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

GE 2021 College of BPM

GE 2022 College of EDU

GE 2023 College of CLA

GE 2024 College of NAHS & NJCSTM & NWGC

GE 2025 SVPA & Michael Graves College

GE 2026 Undecided Majors and other special populations

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

COMM 1402

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 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 Science Distribution course.

Prereq: None

### Foreign Language Credit

The three credits for a foreign language that may satisfy the GE Disciplinary/Interdisciplinary 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 (W-E)

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.

**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)**