

**KEAN UNIVERSITY**  
**COLLEGE OF NATURAL, APPLIED AND HEALTH SCIENCES**  
**(70303) B. S. IN BIOLOGY (Biotechnology Option) 124 S.H.**  
**(EFFECTIVE: 9/02)**

BIO 4970 Seminar Int. Bio. \_\_\_\_\_ 3 \_\_\_\_\_

NAME \_\_\_\_\_  
 STUDENT I.D.# \_\_\_\_\_  
 START TERM \_\_\_\_\_

\_\_\_\_\_  
 \*Required Distribution Course.

**See reverse side for additional notes.**

TRANSFER INSTITUTIONS (X) \_\_\_\_\_ CREDITS \_\_\_\_\_

ID 1001 Freshman Seminar<sup>1</sup> \_\_\_\_\_ 1 \_\_\_\_\_

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In Progress ( ) \_\_\_\_\_

Kean University ( ) \_\_\_\_\_

**GENERAL EDUCATION REQUIREMENTS: 52-53 S.H.**

**FOUNDATIONS REQUIREMENTS<sup>2</sup>: 12 S.H.**

ENG 1030 Composition<sup>3</sup> \_\_\_\_\_ 3 \_\_\_\_\_  
 MATH 1000 College Algebra<sup>4</sup> \_\_\_\_\_ 3 \_\_\_\_\_  
 COMM 1402 Speech Communication As  
 Critical Citizenship \_\_\_\_\_ 3 \_\_\_\_\_  
 GE 2024 Research & Technology \_\_\_\_\_ 3 \_\_\_\_\_

**ADDITIONAL REQUIREMENTS 15 S.H.**

CHEM 3183 Organic Chem. Lab. I \_\_\_\_\_ 2 \_\_\_\_\_  
 CHEM 3184 Organic Chem. Lab. II \_\_\_\_\_ 2 \_\_\_\_\_  
 MATH 2411 Calculus I \_\_\_\_\_ 3 \_\_\_\_\_  
 PHYS 2091 General Physics I \_\_\_\_\_ 4 \_\_\_\_\_  
 PHYS 2092 General Physics II \_\_\_\_\_ 4 \_\_\_\_\_

**DISCIPLINARY & INTERDISCIPLINARY  
 REQUIREMENTS:**

**HUMANITIES 9 S.H.**

\*ENG 2403 World Literature \_\_\_\_\_ 3 \_\_\_\_\_  
 (Select two courses from different areas)  
 Fine Arts or Art History \_\_\_\_\_ 3 \_\_\_\_\_  
 Philosophy or Religion \_\_\_\_\_ 3 \_\_\_\_\_  
 Foreign Languages<sup>5</sup> \_\_\_\_\_ 3 \_\_\_\_\_  
 Music or Theatre \_\_\_\_\_ 3 \_\_\_\_\_  
 Interdisciplinary \_\_\_\_\_ 3 \_\_\_\_\_

**MAJOR REQUIREMENTS<sup>3</sup> 40 S.H.**

**REQUIRED COURSES IN BIOLOGY 29 S.H.**

BIO 2200 Cell Biology \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 2400 Genes, Org., Populations \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 3305 Prin of Microbiology WE \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 3704 Prin of Genetics \_\_\_\_\_ 3 \_\_\_\_\_  
 BIO 3705 Prin of Genetics Lab \_\_\_\_\_ 2 \_\_\_\_\_  
 BIO 3820 Basic Tissue Culture \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4105 Essentials of Biochem WE \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4700 Molecular Genetics \_\_\_\_\_ 4 \_\_\_\_\_

**SOCIAL SCIENCES 9 S.H.**

\*HIST 1000 History of Civil Society  
 in America \_\_\_\_\_ 3 \_\_\_\_\_  
 (Select two courses from different areas)  
 Economics or Geography \_\_\_\_\_ 3 \_\_\_\_\_  
 Political Science \_\_\_\_\_ 3 \_\_\_\_\_  
 Psychology \_\_\_\_\_ 3 \_\_\_\_\_  
 Sociology or Anthropology \_\_\_\_\_ 3 \_\_\_\_\_  
 Interdisciplinary \_\_\_\_\_ 3 \_\_\_\_\_

**PROGRAM RELATED ELECTIVES: 11 S.H.**

*(To be selected with advisement)*

BIO 2500 Prin of Botany \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 3260 Intro to Histology \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 3614 Prin of Ecology \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4200 Prep Tech Electron Micro \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4225 Cell Physiology \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4310 Virology \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4315 Immunology \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4325 Applied Microbiology \_\_\_\_\_ 3 \_\_\_\_\_  
 BIO 4455 Developmental Biology \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4575 Plant Physiology \_\_\_\_\_ 4 \_\_\_\_\_  
 BIO 4615 Applied Ecology \_\_\_\_\_ 3 \_\_\_\_\_  
 BIO 4704 Molecular Biology of Genes \_\_\_\_\_ 3 \_\_\_\_\_  
 BIO 4961 Independent Research \_\_\_\_\_ 1 \_\_\_\_\_  
 BIO 4962 Independent Research \_\_\_\_\_ 2 \_\_\_\_\_  
 BIO 4963 Independent Research \_\_\_\_\_ 3 \_\_\_\_\_  
 BIO 4395-4398 Coop Educ in Biology \_\_\_\_\_ 6 \_\_\_\_\_  
 CPS 1031 Intro to Computers \_\_\_\_\_ 3 \_\_\_\_\_  
 MATH 2026 Stat Decision Theory \_\_\_\_\_ 3 \_\_\_\_\_  
 CHEM 3284 Instrumental Meth Analysis \_\_\_\_\_ 4 \_\_\_\_\_  
 CHEM 4285 Chem Separation Methods \_\_\_\_\_ 3 \_\_\_\_\_

**SCIENCE & MATHEMATICS 11 S.H.**

\*MATH 1054 Precalculus<sup>4</sup> \_\_\_\_\_ 3 \_\_\_\_\_  
 CHEM 1083 Chemistry I<sup>6</sup> \_\_\_\_\_ 4 \_\_\_\_\_  
 CHEM 1084 Chemistry II<sup>6</sup> \_\_\_\_\_ 4 \_\_\_\_\_

**HEALTH / PHYSICAL EDUCATION 2,3 S.H.**

ID 1225 Issues Contemp. Health \_\_\_\_\_ 3 \_\_\_\_\_  
 OR  
 Physical Education \_\_\_\_\_ 1 \_\_\_\_\_  
 Physical Education \_\_\_\_\_ 1 \_\_\_\_\_

**CONCENTRATION 6 S.H.**

CHEM 3181 Organic Chem. Lec. I \_\_\_\_\_ 3 \_\_\_\_\_  
 CHEM 3182 Organic Chem. Lec. II \_\_\_\_\_ 3 \_\_\_\_\_

**FREE ELECTIVES: 15-16 S.H.**

*(50% at the 3000-4000 level)*

**MAJOR/GE CAPSTONE COURSE<sup>3</sup> 3 S.H.**

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_____	3	—
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( OVER )

(70303) B.S. IN BIOLOGY (Biotechnology Option)

NOTES:

1. Required of all Freshmen and Transfers with fewer than 10 credits.
2. See prerequisites and equivalencies on page 3.
3. A grade of "C" or better must be earned in ENG 1030, Major Requirements, and Capstone.
4. Students whose qualifying score on the placement test makes them eligible to take either MATH 1054 or MATH 2411 may take that course instead. In that case, either Math 1054 or MATH 2411 will count as the General Education requirement and the student must take another 3 or 6 credits in Free Electives to total 124 s.h.
5. Credit granted only upon completion of both semesters of elementary or intermediate foreign language. Three credits may be applied in Humanities and three credits may be applied to Free Electives.
6. A grade of "C" or better must be earned in CHEM 1083-1084; prerequisite to CHEM 3181.

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GRADE POINT AVERAGE (GPA) REQUIREMENT FOR THE MAJOR

As of January 1, 2001, the Department of Biological Sciences has formally adopted the following standard for all options of the Biology major:

1. Minimum cumulative GPA of 2.5 at the time of application for acceptance as a declared Major.
2. Minimum cumulative GPA of 2.5 must be maintained in order to remain in the Biology Major.

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**Comments:**

Evaluator's Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Your major department is located in the Science Building (C), Room 123, phone (908)737-3650.

**YOU MUST BRING THIS EVALUATION AND YOUR KEAN UNIVERSITY  
TRANSCRIPT TO ALL ADVISING/REGISTRATION SESSIONS.**