Recommended course plan for BSE students interested in careers in HEALTH PROFESSIONS (137 credits)

[1] BSE Elective [2] Chemistry Elective [3] Engineering Elective [4] Technical Elective [5]CLE
Recommended CLE course: ENGL 2000 or 3000 in lit or Creative writing – Area 2 and/or 7
Career Services Health Professions info: http://www.career.vt.edu/HealthProfessionsAdvising/Index.html

Fall Fresh. Yr. 16 cr.	**Chem 1035 (3)** General Chemistry [5]	**Chem 1045 (1)** General Chemistry Lab [5]	**MATH 1225 (4)** Calculus for Science [5]	**ENGE 1215 (2)** Foundations of Engineering	**ENGL 1105 (3)** First-Year Writing [5]	**PSYC 1004 (3)** Intro to Psych [5]
Spring Fresh. Yr. 17 cr.	**CHEM 1036 (3)** General Chem [5] Pre: CHEM 1035 Spring, Summer 1 & 2	**CHEM 1046 (1)** General Chem Lab [4] Co: CHEM 1036 Spring, Summer 1 & 2	**PHYS 2305 (4)** Found of Physics [5] Pre: MATH 1225 Co: MATH 1226	**MATH 1226 (4)** Calculus for Science [5] Pre: MATH 1225	**ENGE 1216 (2)** Exploration of Engineering Design Pre: ENGE 1215	**ENGL 1106 (3)** Freshman English [5] Pre: ENGL 1105
Fall Soph. Yr. 18 cr.	**PHYS 2306 (4)** Foundations of Physics [5] Pre: MATH 1225, PHYS 2305	**MATH 1114 (2)** Elementary Linear Algebra	**MATH 2224 (3)** Multivariable Calculus Pre: Math 1225 & 1226 (Old sequence: 1206 & 1224)	**ESM 2104 (3)** Statics Co: MATH 1114, MATH 2224	**BIOL 1105 (3)** Principles of Biology [5] Fall, Summer 1	**BIOL 1115 (1)** Principles of Bio Lab [4] Fall, Summer 1	**BSE 2004 (2)** Intro to BSE Pre: ENGE 1215 Fall, Spring
Spring Soph. Yr. 18 cr.	**MATH 2214 (3)** Differential Equations Pre: MATH 1114 & 1226 (Old sequence: 1206)	**ESM 2304 (3)** Dynamics Pre: ESM 2104, MATH 2224 Co: MATH 2214	**BIOL 1106 (3)** Principles of Biology [5] Spring, Summer 2	**BSE 3144 (2)** Engr Analysis for Biol Systems Co: MATH 2214 Spring Only	**BIOL 1116 (1)** Principles of Bio Lab [4] Co: BIOL 1106 Spring, Summer 2	**SOC 1004 (3)** Intro to Sociology [5]	**CLE (3)**
Fall Jun. Yr. 17 cr.	**ESM 3024 (3)** Intro Fluid Mechanics Pre: ESM 2304, MATH 2224 Fall, Summer 2, Winter	**STAT 4604/STAT 4705 (3)** Stat. Methods for Engrs/Prob&Stat for Engrs Pre: MATH 1226/2224	**BSE 3134 (1)** BSE Seminar Pre: BSE 2004 Fall Only	**BSE 3154 (3)** Thermodynamics of Biol. Systems Pre: MATH 2214/ Co: ESM 3024 Fall Only	**CHEM 2535 (3)** Organic Chem [2, 4] Fall, Summer 1	**CHEM 2545 (1)** O-Chem Lab [2, 4] Fall, Summer 1	**CLE (3)**
Spring Jun. Yr. 17 cr.	**BIOL 2604 (3)** General Microbiology Pre: BIOL 1105, 1106, CHEM 1035, 1036	**BSE 3504 (3)** Transport Processes in BSE Pre: BSE 3154, ESM 3024 Spring Only	**BSE 3524 (3)** Unit Operations [1] Spring Only Co: BSE 3504	**CHEM 2536 (3)** Organic Chemistry [2,4] Spring, Summer 2	**CHEM 2546 (1)** Organic Chem Lab [2, 4] Spring, Summer 2	**BIOL 2004 (3)** Genetics [4] Fall, Spring, Summer 1	**CLE (1)**
Fall Sen. Yr. 16 cr.	**ISE 2014 (2)** Engineering Economy Pre: ENGE 1215	**BSE 4125 (2)** Comprehensive Design Project Pre: BSE 3334 or 3524 Fall Only	**BSE 4204 (3)** Instrumentation for Biosystems Pre: PHYS 2306, ESM 3024 Fall Only	**BSE 4544 (3)** Protein Separation Engineering [1] Pre: BSE 3504 or CHE 3144 Fall Only	**BCHM 2024 (3)** Concepts of Biochemistry [2, 4] Pre: CHEM 2535 Fall, Spring, Summer 1	**Engineering Topics Elective (3)**
Spring Sen. Yr. 18 cr.	**BSE 4126 (3)** Comprehensive Design Project Pre: BSE 4125 Spring Only	**BSE Elective (6)**	**Engineering Topics Elective (3)**	**BIOL 2104 (3)** Cell & Molecular Biology [4] Fall, Spring, Summer 2	**CLE (3)**	