# Program Curriculum

**The core pre-health course work (medical and dental) requires the following courses completed (total 49 credits):**
**This is the generalized requirement and curriculum plan for the semesters – individualized plan will be generated based on the health-professions track and the students' needs.**

- BIO 105 - General Biology: Physiology and Cell Biology (4 credits)
- BIO 106 - General Biology: Life-forms and Ecosystems (4 credits)
- BIO 286 – Cell Biology (3 credits)

- CHEM 113.4 - General Chemistry I (4 credits)
- CHEM 113.1 - Introduction to Chemical Techniques (1 credit)
- CHEM 114.4 - General Chemistry II (4 credits)
- CHEM 114.1 - Quantitative and Qualitative Analysis (1 credit)
- CHEM 251.4 - Organic Chemistry I (4 credits)
- CHEM 251.1 - Organic Chemistry Laboratory I (1 credit)
- CHEM 252.4 - Organic Chemistry II (4 credits)
- CHEM 252.1 - Organic Chemistry Laboratory II (1 credit)
- CHEM 371 - Biochemistry I (4 credits)

- PHYS 121.4 - General Physics I (4 credits)
- PHYS 121.1 - General Physics I Laboratory (1 credit)
- PHYS 122.4 - General Physics II (4 credits)
- PHYS 122.1 - General Physics II Laboratory (1 credit)

- MATH 141 - Calculus/Differentiation (3 credits)
- PSYCH 107 or SOC 205 – Social Statistics (4 credits)

**The following schedule of the program is an example of the required, structured course work which is completed within a two-year period. Three-year plan is optional.**

**<u>Program Curriculum Plan - Start Time Fall Semester:</u>**

**Fall semester 1:**
- BIO 105 - General Biology: Physiology and Cell Biology (4 credits)
- CHEM 113.4 - General Chemistry I (4 credits)
- CHEM 113.1 - Introduction to Chemical Techniques (1 credit)
- MATH 141 - Calculus/Differentiation (3 credits)

**Spring semester 1:**
- BIO 106 - General Biology: Life-forms and Ecosystems (4 credits)
- CHEM 114.4 - General Chemistry II (4 credits)
- CHEM 114.1 - Quantitative and Qualitative Analysis (1 credit)
- PSYCH 107 or SOC 205 – Social Statistics (4 credits)

**Summer semester 1:**
- CHEM 251.4 - Organic Chemistry I (4 credits)
- CHEM 251.1 - Organic Chemistry Laboratory I (1 credit)

**Fall semester 2:**
- BIO 286 – Cell Biology (3 credits)
- CHEM 252.4 - Organic Chemistry II (4 credits)
- CHEM 252.1 - Organic Chemistry Laboratory II (1 credit)
- PHYS 121.4 - General Physics I (4 credits)
- PHYS 121.1 - General Physics I Laboratory (1 credit)

**Spring semester 2:**
- CHEM 371 - Biochemistry I (4 credits)
- PHYS 122.4 - General Physics II (4 credits)
- PHYS 122.1 - General Physics II Laboratory (1 credit)

## Program Curriculum Plan - Start Time Spring Semester:

**Spring semester 1:**
- BIO 105 - General Biology: Physiology and Cell Biology (4 credits)
- CHEM 113.4 - General Chemistry I (4 credits)
- CHEM 113.1 - Introduction to Chemical Techniques (1 credit)
- MATH 141 - Calculus/Differentiation (3 credits)

**Summer semester 1:**
- CHEM 114.4 - General Chemistry II (4 credits)
- CHEM 114.1 - Quantitative and Qualitative Analysis (1 credit)

**Fall semester 1:**
- BIO 106 - General Biology: Life-forms and Ecosystems (4 credits)
- CHEM 251.4 - Organic Chemistry I (4 credits)
- CHEM 251.1 - Organic Chemistry Laboratory I (1 credit)
- PSYCH 107 or SOC 205 – Social Statistics (4 credits)

**Spring semester 2:**
- CHEM 252.4 - Organic Chemistry II (4 credits)
- CHEM 252.1 - Organic Chemistry Laboratory II (1 credit)
- PHYS 121.4 - General Physics I (4 credits)
- PHYS 121.1 - General Physics I Laboratory (1 credit)

**Summer semester 2:**
- PHYS 122.4 - General Physics II (4 credits)
- PHYS 122.1 - General Physics II Laboratory (1 credit)

**Fall semester 2:**
- BIO 286 – Cell Biology (3 credits)
- CHEM 371 - Biochemistry I (4 credits)

**During the glide year (fall and spring semester 3), students are strongly encouraged to continue their academic studies and take additional science courses. Our college offers following relevant science courses for the pre-health students to choose:**

- BIO 201 (Microbiology)
- BIO 285 (Genetics)
- BIO 325 (Anatomy and Physiology I)
- BIO 360 (Histology)
- BIO 373 (Neurobiology)
- BIO 365 (Developmental Biology)
- BIO 350 (Molecular Genetics)
- CHEM 372 (Biochemistry II)
- CHEM 376 (Biochemistry laboratory)
- BIO 366 (Immunology)
- BIO 368 (The Biology of Cancer)
- BIO 326 (Anatomy and Physiology II)
- BIO 685 (Development of Nervous System)
- BIO 710 (Molecular Biology)
- BIO 369 (Virology)