The following courses (semester hours or equivalent quarter hours) are required to apply to the School of Dental Medicine. All coursework must be completed at the conclusion of the spring term of the year accepted, and applicant must receive a grade of a C or better. No more than 60 semester hours are allowed from a community/junior college. High school advanced placement (AP) courses can be accepted for prerequisite course work. Official documentation will be required to include AP scores.

- **General Biology or General Zoology with Lab: (8 semester)**
  Since dentistry is dependent upon knowledge of normal and abnormal biology/zoology including laboratory work, this field is of major importance. The applicant should be concerned with complete preparation for dental education. Appropriate course selection in the biological sciences should lead to a thorough understanding of the principles of modern biology.

- **General Chemistry with Lab: (8 semester hours)**
  A program in general chemistry should include the following: principles of chemistry, the descriptive chemistry of atomic and molecular structure, chemical bonding, stoichiometry, chemical kinetics, chemical equilibrium and electro-chemistry. This program should include laboratory work that serves as an introduction to the principles of qualitative analysis, including ionic equilibria, ionic separation and the detection of selected simple and complex ions.

- **Organic Chemistry with Lab: (8 semester hours)**
  Course work in organic chemistry, including laboratory work, should cover the nomenclature, reactions and electronic or structural features of compounds which frequently are involved in biological reactions.

- **General Physics with Lab, Algebra or Calculus based: (8 semester hours)**
  The concept of mechanics as the action of forces through levers and the performance of work in the exchange of forms of energy should be understood. The range of electromagnetic radiation from infrared through visible light to X-rays and waves of other lengths should also demonstrate the basic principles of generation, conduction and measurement of electrical forces.

- **Microbiology Lecture (lab not required): (3 semester hours)**
  This course should include various topics such as the identification, structure and characteristics of bacteria, viruses and eukaryotic microorganisms. An appreciation for mechanisms of microbial pathogenesis, microbial-host interactions and strategies to control or prevent infectious diseases should also be obtained.

- **General Biochemistry (lab not required): (3 semester hours)**
  This course shall include various topics such as the structure and properties of proteins and enzymes, control and integration of metabolic pathways for the synthesis and degradation of macromolecules accompanied with the utilization or release of free energy, structure and function of nucleic acids, flow of genetic information and the regulation of gene expression.

- **English Composition:** (3 semester hours)
- **90 semester hours** with at least 30 hours of upper division credit

**Suggested Electives:** Courses to consider include in anatomy, cell biology, histology, immunology, physiology, business management/finance, psychology and communications. Students should select subjects that stimulate them intellectually, challenge them to a maximum performance and contribute to their overall development and maturation. Courses may be in a single area with a general background in many areas, or may group together several related areas in the sciences or humanities.