

biology, 8-10 credit hours; physics, 8-10 credit hours (Physics 151-152); mathematics, at least college algebra; English, 6-12 credit hours (English 110 and an additional course); psychology, 3-6 credit hours (at least Psychology 110); and additional electives to total the minimum requirements of the particular dental school.

## Medicine, Allopathic and Osteopathic

Medical schools seek candidates with a high level of scholastic achievement and intellectual potential, as well as the motivation and humanistic concern necessary for success as a physician. These qualities are measured by college grades, particularly science grades, letters of recommendation from undergraduate faculty and premedical advisers, Medical College Admission Test (MCAT) scores, interview assessment, an applicant's personal statement and application, and volunteer work and community service. Acceptance into medical school is competitive and the mean grade point average for accepted students is about 3.6. Although most medical schools require a minimum of three years of undergraduate work before admission, the majority of entering medical students have a baccalaureate degree.

Medical schools do not require a specific major; however, most applicants major in biology, chemistry, or such combinations as the chemistry-biology major. Although an understanding of the principles of the sciences basic to medicine is required of entering medical students, breadth of education also is expected. A successful medical student must effectively acquire, synthesize, apply, and communicate information. Thus, studies in the humanities and in the social and behavioral sciences and opportunities for the development

of effective writing skills are strongly suggested. Independent study and research also are encouraged.

The specific admission requirements vary from school to school, and a student should plan carefully to ensure your education and work experiences enhance your chances for admission. The following guidelines should be kept in mind when planning an undergraduate curriculum: general biology or zoology (with lab), 4 credit hours (Biology 121); advanced biology or zoology (with lab), 4 credit hours; general chemistry (with lab), 8 credit hours (Chemistry 112 and 211); organic chemistry (with lab), 8 credit hours (Chemistry 111 and 214); physics (with lab), 8 credit hours (Physics 151-152); English, 6 credit hours (English 110 and an additional course); mathematics, calculus for most schools. Courses such as human anatomy and physiology, vertebrate structure, genetics, microbiology, cell physiology, biochemistry, psychology, and sociology also are helpful when preparing for medical school.

## Nursing and Ripon College's Affiliation with Rush University

Although a person with an undergraduate nursing degree will have no trouble finding employment, to advance in this field it is usually necessary to obtain a Masters degree. Graduate entry-level nursing programs are available for those students who have earned a baccalaureate degree. Graduate programs in nursing include a master's of science (M.S.), doctor of nursing (N.D.), and doctor of nursing science (D.N.Sc.). For these programs, an applicant must have a minimum grade point average of 3.0. The graduate record exam (GRE) and an interview are required. Prerequisite course work includes human anatomy

and physiology (Biology 211 and 312), microbiology (Biology 314), inorganic chemistry (Chemistry 112), and organic chemistry (Chemistry 111). Coursework in psychology (110, 235, or 242), sociology (110), English (110 and another English course) and statistics (Mathematics 120 or Psychology 211-212) are recommended.

Ripon College is affiliated with Rush University in Chicago, and Ripon graduates who meet the admission requirements can be automatically accepted into the Generalist Entry Master of Science in Nursing program. Required prerequisite courses, all completed with a grade of C or better, include chemistry (Chemistry 111-112), human anatomy and physiology (Biology 211-312), microbiology (Biology 314), courses in the behavioral and social sciences (Psychology 110, Sociology 110), and courses in the humanities. A GPA of 3.0 or higher is required, and the GRE exam is waived if the applicant has a Ripon College GPA of 3.25 or greater.

## Optometry

The American Optometric Association (AOA) published definition of an optometrist is as follows: "Doctors of Optometry are independent primary health care providers who examine, diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures, as well as diagnose related systemic conditions." Most students entering optometry school have a bachelor's degree from a four-year college or university. Optometry programs assess undergraduate grade point average, scores on the Optometry Admission Test (OAT), undergraduate degrees, biographical information, knowledge of the profession, letters of reference, and an interview.

The specific admission requirements for Optometry schools differ markedly from one school to another and it is important that the applicant obtain a catalog from the specific school or college of optometry where he or she plans to apply. The following guidelines should be kept in mind while planning an undergraduate curriculum: biology, including general zoology (Biology 121), microbiology (Biology 314), human anatomy and physiology (Biology 211), cell biology (Biology 327), and genetics (Biology 219); chemistry, including inorganic (Chemistry 112), organic (Chemistry 111), and biochemistry (Chemistry 422); general physics (Physics 151-152); English composition (English 110); psychology (Psychology 110); mathematics, including calculus (Mathematics 201) and statistics (Mathematics 120); and computer science (Computer Science 101). Additional courses may include sociology, public speaking, business, and economics.

## Pharmacy

Historically, the functions of a pharmacist centered on the preparation and provision of a drug product to a patient. However, over the past 30 years, pharmacists have begun to complement their practice with a more proactive approach, emphasizing pharmaceutical care. Today pharmacists are responsible for selecting an appropriate dosage and dosage schedule, preparing medication for administration, providing information about medication, and advising and monitoring patients to prevent or detect harmful side effects. Reflective of this change, a majority of the nation's schools and colleges of pharmacy have recently voted to move toward awarding the doctor of pharmacy (Pharm. D.) degree as the only professional degree in pharmacy.