

Preprofessional Studies

Health Professions

Careful planning of the student's academic program is important and students should select Biology 121 and/or Chemistry 111 in their first year.

Consultations with one of the health professions advisors should begin during the first-year. Members of the Health Professions Advisory Committee are listed in the Faculty Committees section of the Register of the College found at the end of this catalog.

For entry into training programs for most medical professions, college grades are very important, as well as first-hand experience with the medical professions, demonstrated ability to work well with other people, and involvement in community service and/or volunteerism.

Athletic Training

Athletic training encompasses the prevention, examination, diagnosis, treatment and rehabilitation of emergent, acute or chronic injuries and medical conditions. Athletic training is recognized by the American Medical Association (AMA), Health Resources Services Administration (HRSA) and the Department of Health and Human Services (HHS) as an allied health care profession. Athletic trainers (ATs) are highly qualified, multi-skilled health care professionals who collaborate with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions. Athletic trainers work under the direction of a physician as prescribed by state licensure statutes. Athletic trainers are licensed or otherwise regulated in 49 states and the District of Columbia and the Board of Certification credential of "Athletic Trainer Certified"

(ATC) is recognized nationwide.

The athletic training academic curriculum and clinical training follows the medical model. Students who want to become certified athletic trainers must earn a degree from an accredited professional athletic training curriculum. Professional Athletic Training Programs are transitioning to an Entry-Level Masters Degree, meaning that they are no longer admitting freshman, instead requiring a bachelor's degree from an accredited college. The specific admission requirements for Professional Athletic Training programs differ between schools 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 while planning an undergraduate curriculum: Anatomy & Physiology, 8 credit hours (BIO 211 and 312); Chemistry, 5 credit hours (CHM 112); Physics, 4 credit hours (PHY 171); Research methods, 4 credit hours (EXS 500); Statistics, 4 credit hours (MTH 120 or PSC 211); Athletic Training, 3 credit hours (EXS 211); Biomechanics, 4 credit hours (EXS 432); Nutrition, 3 credit hours; Functional Anatomy 4 credit hours.

Chiropractic Medicine

A doctor of chiropractic is a primary health care provider who gives particular attention to the relationship of the structural and neurological aspects of the body. A chiropractor is trained in physical examination, orthopedic and neurological testing, radiographic interpretation, and direct palpitation of joint movement. Although most chiropractic colleges specify a minimum of 90 undergraduate semester credits as a requirement for admission, the majority of entering students

have a bachelor's degree. No specific undergraduate major is required. Most chiropractic colleges require a minimum grade point average, typically 3.0, with no science course below a "C."

The specific admission requirements for chiropractic colleges may differ between schools. However, guidelines from the American Chiropractic Association should be kept in mind while planning an undergraduate curriculum. A minimum of 24 semester credits in Life and Physical Sciences with at least half of the courses including a lab component is required. Specific requirements include Organic Chemistry I (CHM 111), General Chemistry I (CHM 112), and Introductory Biology (BIO 121). Recommended courses include General Chemistry II (CHM 211), Organic Chemistry II (CHM 214), Human Anatomy and Physiology I (BIO 211), and Physics I (PHY 171). Other suggested courses include Human A&P II (BIO 312), Vertebrate Zoology (BIO 216), Genetics (BIO 219), Microbiology (BIO 314), Cell Physiology (BIO 327), Physics II (PHY 172), Introductory Psychology (PSC 110), and Introductory Sociology (SOC 110).

Dentistry

Although many dental schools specify three years of preprofessional education as a minimum requirement for admission, most entering students have a bachelor's degree. No specific undergraduate major is required. Most dental schools require a certain level of performance on the Dental Admission Test; students planning to enter dental school directly after graduation from Ripon should take this test the spring of their junior year. Dental schools also assess the undergraduate transcript, grade point average, letters of recommendation, and an interview.

The specific admission requirements for dental schools differ between schools so it is important that the applicant

consult the specific prerequisite courses required for a specific school of dentistry. The following guidelines should be kept in mind while planning an undergraduate curriculum: general chemistry, 8-10 credit hours (CHM 112 and 211); organic chemistry, 8-10 credit hours (CHM 111 and 214); biology, 8-10 credit hours; physics, 8-10 credit hours (PHY 171-172); mathematics, at least college-level pre-calculus; English, 6-12 credit hours; psychology, 3-6 credit hours (at least PSC 110); and additional electives to satisfy the 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, exposure to clinical medicine, 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 or the psychology-biology majors. 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 (BIO 121); advanced biology or zoology (with lab), 4 credit hours (BIO 211, 216, or 219 for example); general chemistry (with lab), 8 credit hours (CHM 112 and 211); organic chemistry (with lab), 8 credit hours (CHM 111 and 214); biochemistry, 4 credit hours (CHM 422); physics (with lab), 8 credit hours (PHY 171-172); English, 6 credit hours; statistics (MTH 120 or PSC 211) for most schools and calculus (MTH 201) for some schools. Courses such as human anatomy and physiology, vertebrate zoology, genetics, microbiology, cell physiology, psychology, and sociology also are helpful when preparing for medical school and the MCAT.

Ripon College is affiliated with Lake Erie College of Osteopathic Medicine (LECOM) in Erie, PA and Bradenton, FL. Our affiliation via the LECOM Early Acceptance Program (EAP) allows qualified students to be provisionally accepted, i.e. a reserved seat, to LECOM's medical school to earn a doctorate in osteopathic medicine (D.O.). Applicants must be U.S. citizens or legal permanent residents. Application to the EAP can occur as early

as the senior year in high school and up through the second year at Ripon College. To receive a provisional acceptance, students must complete a successful interview by LECOM at a LECOM campus or a regional interview site. Affiliates must be officially enrolled in the Ripon-EAP for the two consecutive years prior to matriculating at LECOM. LECOM will follow the progress of students in the Ripon-LECOM EAP throughout their time at Ripon College. In addition, students in the Ripon-LECOM EAP participate in events at the LECOM campus and elsewhere.

To matriculate to LECOM, the student must have completed the prerequisite course work as an un-interrupted full-time student, have a cumulative science GPA of 3.2 or higher, and a cumulative overall GPA of 3.4 or higher. LECOM does not restrict the number of AP credits that may be used to fulfill the credit requirements. The medical school entrance exam, MCAT, is not required for most students in the Ripon-LECOM EAP. Students applying to LECOM via the EAP apply directly to the medical school and not through application services such as AACOMAS and AMCAS.

Students interested in enrolling in the Ripon-LECOM EAP should consult with a member of the Health Professions Advising Committee and take the following prerequisite courses: 6 credits in English (ENG 110 or CTL110 and one additional English course), 6 credits in behavioral science, 4 credits in physics (PHY171), 8 credits in biology, genetics (Bio 219), 8 credits in inorganic chemistry (CHM 112, CHM 211), 8 credits in organic chemistry (CHM 111, CHM 214), and biochemistry (CHM 422). Required prerequisites must all be completed with a C or better.

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 varies between programs and interested students should consider course in human anatomy and physiology (BIO 211 and 312); microbiology (BIO 314); inorganic chemistry (CHM 112); organic chemistry (CHM 111); psychology (PSC 110, 235, or 242); sociology (SOC 110); English; and statistics (MTH 120 or PSC 211-212).

Ripon College is affiliated with Rush University School of Nursing 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 (CHM 111-112), human anatomy and physiology (BIO 211-312), and microbiology (BIO 314). A GPA of 3.0 or higher is required (both overall and science-specific GPA), 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 (BIO 121), microbiology (BIO 314), human anatomy and physiology (BIO 211 and 312), cell biology (BIO 327), and genetics (BIO 219); chemistry, including inorganic (CHM 112), organic (CHM 111), and biochemistry (CHM 422); general physics (PHY 171-172); English composition; psychology (PSC 110); and mathematics, including calculus (MTH 201) and statistics (MTH 120). 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, schools and colleges of pharmacy now offer the doctor of pharmacy (Pharm. D.) degree as the only professional degree in pharmacy.

A Pharm. D. degree requires at least two years of preprofessional study followed by at least four years of professional study. Consequently, a number of students obtain their bachelor's degree before matriculating into a Pharm D. program. Entry-level Pharm. D. admission is based upon completion of pre-pharmacy courses, quality of academic record, Pharmacy College Admission Test (PCAT) scores, letters of recommendation, resume, and a personal interview. The specific admission requirements for Pharm. D. programs differ markedly from one school to another and are generally more extensive and detailed than those of medical schools. It is important that the applicant consult the specific prerequisite courses required for the specific school of pharmacy.

The following guidelines should be kept in mind while planning an undergraduate curriculum of preprofessional preparation: inorganic chemistry, 8-10 credit hours (CHM 112 and 211); organic chemistry, 8-10 credit hours (CHM 111 and 214); biochemistry (CHM 4322); biology, at least 12 credit hours including general biology (BIO 121) and one additional from vertebrate zoology (BIO 216), genetics (BIO 219), or botany (BIO 227); microbiology (BIO 314); anatomy and physiology (BIO 211-312); general physics, 8-10 credit hours (PHY 171-172); calculus, 4-5 credit hours (MTH 201); statistics (MTH 120 or PSC 211); English; micro-economics, 3-4 credit hours (ECO 212); social science, 3 credit hours, sociology (SOC 110) or anthropology (ANT 110); behavioral science, 3 credit hours, (PSC 110); history, 2-3 courses; humanities,

6 credit hours; ethnic studies, 3 credit hours; and additional electives to satisfy the requirements of the particular pharmacy school.

Physical Therapy and Corrective Therapy

The basis for certification as a physical therapist is the Doctor of Physical Therapy degree. Although there is no specific major required for entrance into a physical therapy program, the undergraduate major is often biology or exercise science.

The specific admission requirements vary considerably from school to school and are generally more extensive and detailed than those of medical schools. It is important that the applicant consult the specific prerequisite courses required for the specific school of physical therapy. Many admission requirements include a bachelor's degree from an accredited college or university; GRE; a minimum cumulative grade point average, usually a 3.0; a minimum science grade point average; successful completion of all prerequisite courses no later than the spring semester prior to summer admission; evidence of professional behavior required to participate effectively in a health care environment; and satisfactory completion of volunteer or paid patient care experience in two physical therapy settings under the supervision of a physical therapist, usually a minimum of 20 hours in each setting.

The following guidelines should be kept in mind while planning an undergraduate curriculum: biology, including introductory biology (BIO 121), animal biology, with lab (any zoology course); human anatomy and physiology, with lab (BIO 211 and 312); a year sequence of chemistry, with lab (CHM 111 and 112); biochemistry (CHM 422); a year sequence of general physics, with lab (PHY 171-172); psychology, including general

psychology (PSC 110) and human development (PSC 235 or 242); and statistics (MTH 120 or PSC 211). In addition, the following courses are recommended by many schools and required by others: kinesiology, exercise physiology, neurosciences, physiological psychology, calculus, ethics, medical sociology, cultural diversity, counseling, public speaking, public health, English and technical writing, English composition, computer science, and additional courses in the humanities and social sciences. Internships with physical therapists also are required (BIO 551 or 552). Because most physical therapy programs require hands-on experience, students are encouraged to get involved in the athletic training program. Exercise Science 211 and 412 are recommended to prepare students to participate in more advanced activities of this sort.

A baccalaureate degree with a major in exercise science is a prerequisite for admission to a training program in corrective therapy. Following graduation, the interested student enters a one-year training program at an approved institution where corrective therapy is available. There is a subsequent certification examination. For more information, consult any member of the Health Professions Advisory Committee.

Physician Assistant

Physician assistants are health professionals licensed to practice medicine with physician supervision. Within the physician/PA relationship, physician assistants exercise autonomy in medical decision making and provide a broad range of diagnostic and therapeutic services. For example, PA's are qualified to take medical histories, order laboratory tests, diagnose and treat illnesses, give medical advice, counsel patients, perform physical exams, assist in surgery, and set fractures.

The specific admission requirements

for PA programs differ from one school to another and it is important that the applicant obtain a catalog from the specific PA program where he or she plans to apply. Although no specific major is required, you should plan carefully to ensure that your education and employment experiences enhance your chances for admission. Most PA programs now are completely at the graduate level, and a baccalaureate degree is required. Further, significant direct patient contact experience is required prior to admission. Thus, it is a good idea to volunteer in a hospital, and to obtain EMT or CNA certification. Some schools also require the Allied Health Professional Admissions Test (AHPAT).

The following guidelines should be kept in mind while planning an undergraduate curriculum: inorganic chemistry (CHM 112), organic chemistry (CHM 111), biochemistry (CHM 422), general biology (BIO 121), zoology (BIO 215 or 216), microbiology (BIO 314), human anatomy and physiology (BIO 211 and 312), general psychology (PSC 110), and additional electives to satisfy the requirements of the particular physician assistant program.

Podiatry

Podiatric medicine is a branch of the medical sciences devoted to the study of human movement with the medical care of the foot and ankle as its primary focus. A doctor of podiatric medicine (DPM) specializes in the prevention, diagnosis, and treatment of foot disorders, diseases, and injuries. Although schools of podiatric medicine specify three years of preprofessional education as a minimum requirement for admission, a baccalaureate degree is strongly recommended (over 90% of entering students have a bachelor's degree). No specific under-

graduate major is required. Most colleges of podiatric medicine require the Medical College Admission Test (MCAT). Podiatric colleges also assess the undergraduate transcript, grade point average, letters of recommendation (one from the Health Professions Advisory Committee, two from science faculty, and one from a podiatric physician), and an interview.

The minimum semester credit hour requirements for all of the colleges of podiatric medicine include the following: biology, 8 credit hours (BIO 121 and an additional course); chemistry (general/inorganic), 8 credit hours (CHM 112 and 211); organic chemistry, 8 credit hours (CHM 111 and 214); physics, 8 credit hours (PHY 171-172); English, 6 credit hours (ENG 110 and an additional course). It is strongly recommended that the college curriculum also include three or more of the following courses: anatomy and physiology (BIO 211 and 312), biochemistry (CHM 422), genetics (BIO 219), and microbiology (BIO 314). The latest a student may take the MCAT is in the spring of the year prior to fall admission.

Veterinary Medicine

Schools of veterinary medicine are some of the most selective of professional schools. They assess the undergraduate transcript and grade point average, standardized examination (usually the MCAT or GRE taken in the spring of the junior year), animal contact and work experience with both large and small animals, veterinary medical experience, other preparatory experience, college degree earned, extracurricular activities, letters of recommendation, and a personal interview.

The specific admission requirements vary considerably from school to school and are generally more extensive and detailed than those of medical schools.

It is important that the applicant obtain a catalog from the specific school of veterinary medicine where he or she plans to apply. Although no specific major is required, you should plan carefully to ensure that your education and animal work experiences enhance your chances for admission.

Typical course requirements include: general and qualitative chemistry, 8-10 credit hours (CHM 112 and 211); organic chemistry, 8-10 credit hours (CHM 111 and 214); biochemistry, 3-4 credit hours (CHM 422); general biology or zoology, 5-6 credit hours (BIO 121 and an additional course in animal biology, most likely BIO 216); genetics or animal breeding, 3 credit hours (BIO 219); microbiology, 3-4 credit hours (BIO 314); physiology, 3-4 credit hours (BIO 211-312); general physics, 6-10 credit hours (PHY 171-172); statistics (MTH 120 or PSC 211); English, 3-6 credit hours; social science or humanities, 6-10 credit hours; and additional electives to satisfy the requirements of the particular veterinary school. In addition, calculus (MTH 201) and courses in animal behavior and husbandry may be required.

Other Fields of Study

Engineering

A pre-engineering program will prepare students for further education in the field of engineering as they earn a bachelor's degree in a similar field. Students intending to become engineers may follow one of three plans. The first option is to complete a bachelor's degree at Ripon and then do advanced work leading to a Master of Science in engineering from a technical school. The second option is to study three years at Ripon and three years at an engineering school; students following this plan receive a bachelor's degree from Ripon and a master's degree from

a technical school. The third option is to study three years at Ripon and two years at an engineering school; students following this plan receive bachelor's degrees from both institutions.

Students in these programs need strong aptitudes in mathematics and science and should enroll in mathematics and physics courses during their first semester of coursework at Ripon College. Consult Professor Leah Simon for further information regarding this program.

Students interested in combining studies in the biological and physical sciences for graduate studies leading to degrees in bioengineering or medical physics should consult any member of the Health Professions Advisory Committee.

Forestry and Environmental Studies

Students interested in forestry, environmental studies, and resource management may complete their baccalaureate degree and then select a graduate program, usually for two years, leading to a master's degree. A major in Environmental Studies would be an appropriate course of study at Ripon College. Consult Professor George Wittler.

Government Service

Careers in military service, politics, and public administration do not require a specific major or a specific set of courses. Students wishing to pursue a successful career in any of these fields must develop skills of logical analysis and argumentation and mastery of the English language in writing and speech. Training in economics and in statistics and computer science is highly desirable; insight gained from the study of history, philosophy, and politics is invaluable.

Students contemplating military or governmental service careers elect courses from economics, English, history, phi-

losophy, and politics and government and usually major in one of these disciplines.

For more information consult Professor Lamont Colucci (politics and government) and the Office of Constituent Engagement and Career Services.

Journalism

Interested students should elect a well-rounded group of courses with an emphasis on English, history, economics, communication, and politics and government. A self-designed major in journalism may be considered. When choosing a major, students should anticipate the probable area of journalistic specialization, such as science reporting or performing arts criticism. Practical journalistic experience may be obtained by working on the staff of the campus newspaper, radio station, yearbook, literary magazine, or office of marketing and communications. Experience may also be obtained at the local cable access channel located in downtown Ripon. A semester or summer internship with a newspaper, radio station, or television network is highly recommended.

A student who goes from Ripon into specialized training at a school of journalism may, by previous arrangement, qualify for a degree from Ripon and from the school of journalism provided that the student completes three years at Ripon, the distribution requirements, and a major.

Law

Admittance into post graduate law school or legal administration programs require a liberally educated student who can demonstrate a mastery of communication and analytical skills. No specific major or set of courses is required however a strong background in logic either from the philosophical or mathematical discipline combined with writing courses

in journalism, English, or the social sciences will prove useful. The introductory law and constitutional law classes will provide an excellent test for a student's interest level. These preparatory classes as well as classes in a definite interest area such as politics, business, sociology, or psychology will give the student the background needed for a successful legal career.

The interdisciplinary nature of the Ripon College program permits a student to prepare for the rigors of post graduate law school or other schools of legal and court administration. In today's world of specialization, a successful candidate for a legal career must have the opportunity to explore the legal environment while developing that niche in environmental law, business law, criminal law, sports law, literary law, labor law or one of the over one hundred specialties practiced today. For more information consult Professor Steven Sorenson

Library and Information Science

Librarianship offers students an excellent opportunity to use knowledge and skills gained through their liberal arts education. Professional librarians have masters or doctoral degrees in library and information science and come from a variety of undergraduate backgrounds. Librarianship offers specialization in fields such as music, law, the medical sciences and business, to name a few. Students interested in a career in library and information science will benefit from courses in statistics, education (for school librarianship), and history and art history (for archival management). Lane Library's work study positions offer student assistants the opportunity to shadow librarians in their departments and learn about the various facets of library work. Work-study in the College archives are also available. For more information consult the library staff.

Military Leadership

The U.S. Army and Ripon College offer Army ROTC courses that can lead to a commission as a Second Lieutenant in the United States Army. Excellent opportunities, benefits and a variety of careers in the military service are available as a commissioned officer. Students may also apply for graduate study and professional studies such as law, medicine or dentistry prior to commissioning. Qualified cadets in the Military Science program may compete for ROTC scholarships which, in addition to a subsistence allowance, cover the full cost of tuition, books, and fees. Consult the Military Science Department for further information.

Ministry

The best preparation for special study at a divinity school or seminary is a well-balanced liberal arts education, with emphasis on English, philosophy, religion, and social sciences. Public speaking is also important. Consult Professor Brian Smith.

Social Work

A liberal education is excellent preparation for a career in social work because it gives broad exposure to problems that people and societies face and that social workers typically encounter. Students interested in social work may major in economics, history, philosophy, politics and government, psychology, sociology, or may plan a self-designed major. Graduate work should be strongly considered. Consult Professor Jacqueline Clark.

Teaching

Licensure: Under the supervision of Ripon's Educational Studies Department, a student may earn teacher licensure in several subject areas. Ripon believes a good teacher meets the standards of professional preparation in education,

possesses competency in the subject matter taught, understands the human needs that motivate individual behavior, and is sensitive to the forces and value systems that influence society. The College further believes that these qualities are best developed at the undergraduate level through a program of liberal and professional education. The professional course work in education that Ripon offers is designed to prepare teachers for initial licensure. Their on-the-job experience, graduate study, and professional development activities are the ingredients for continued development as good teachers.

Specialized Areas of Education: Ripon provides the prerequisite work for graduate study in most specialized areas in the field (e.g., reading, school counseling, and special education). Ripon's academic departments offer elective courses which provide background preparation for these

specialized roles. Students interested in one of these specialized positions should seek the advice of education professors no later than the sophomore year.

Private Schools: Students with strong academic records, but lacking licensure, can be employed by private schools for elementary and secondary teaching. Courses in education strengthen such a teacher's qualifications, but students should be aware that many private schools hire licensed teachers.

College and University: A master's degree is the usual minimum for an initial appointment, and a terminal degree (such as the Ph.D.) is often required. A strong departmental major at Ripon qualifies the student for admission to an appropriate graduate school.

Consult with the chair of the Educational Studies Department for more information.