

College of Science and Health (SAH)

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The College of Science and Health houses high quality major and minor programs in the natural and physical sciences, mathematics and computer science, exercise science, recreation, and in selected allied health professions. The college's combination of programs provides both applications for the sciences and a strong science base for the allied health offerings. These programs also collectively provide many scientific literacy offerings within the university's general education program. All major programs offer undergraduate research experiences and/or professional internship experiences through collaborative agreements with external agencies.

Sequences and requirements are listed on the various department pages, with major or minor requirements listed on those specific tabs in the department's section. In addition to the major and general education requirements, all students in the College of Science and Health must complete a core curriculum, which emphasizes diverse in-depth study outside of the major.

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Department/units

- Biology
- Chemistry and Biochemistry
- Computer Science
- Exercise and Sport Science
- Geography and Earth Science
- Health Education and Health Promotion
- Health Professions
 - Nuclear Medicine Technology
 - Occupational Therapy (graduate only)
 - Physical Therapy (graduate only)
 - Physician Assistant Studies (graduate only)
 - Radiation Therapy
- Mathematics and Statistics
- Microbiology
 - Clinical Laboratory Science
- Physics
- Recreation Management and Therapeutic Recreation

Degrees offered

- Bachelor of Arts
- Bachelor of Science
- Master of Public Health (see graduate catalog)
- Master of Science (see graduate catalog)
- Master of Software Engineering (see graduate catalog)
- Doctor of Physical Therapy (see graduate catalog)

Majors and minors

B.A. = Bachelor of Arts B.S. = Bachelor of Science m = minor

- Adapted Physical Education (<http://catalog.uwlax.edu/undergraduate/exerciseandsportscience>) (m)
- Athletic Training (<http://catalog.uwlax.edu/undergraduate/exerciseandsportscience>) (B.S.) (*This major is no longer accepting students. New students may refer to the pre-athletic training program (p. 3) below.*)
- Biochemistry with American Society for Biochemistry & Molecular Biology (ASBMB) Certification (<http://catalog.uwlax.edu/undergraduate/chemistry>) (B.S.)
- Biology (<http://catalog.uwlax.edu/undergraduate/biology>) (B.A., B.S., m)
 - Aquatic Science Concentration (B.A., B.S.)
 - Biomedical Science Concentration (B.A., B.S.)
 - Cellular and Molecular Concentration (B.A., B.S.)
 - Environmental Science Concentration (B.A., B.S.)
 - Plant and Fungal Concentration (B.A., B.S.)
- Biology Education (<http://catalog.uwlax.edu/undergraduate/biology>) (B.S., m)
- Chemistry with American Chemical Society (ACS) Certification (<http://catalog.uwlax.edu/undergraduate/chemistry>) (B.S.)
 - Business Concentration (B.S.)
 - Chemistry (m)
 - Environmental Science Concentration (B.S.)
- Chemistry Education (<http://catalog.uwlax.edu/undergraduate/chemistry>) (B.S., m)
- Clinical Laboratory Science (<http://catalog.uwlax.edu/undergraduate/clinicallaboratoryscience>) (B.S.)
- Computational Science (<http://catalog.uwlax.edu/undergraduate/computationalscience>) (m)
- Computer Science (<http://catalog.uwlax.edu/undergraduate/computerscience>) (B.S., m)
- Computer Science - Computer Engineering Technology Emphasis (B.S.) (<http://catalog.uwlax.edu/undergraduate/computerscience/computersciencemajorcomputerengineeringtechnologyemphasis>)
- Computer Science Education (<http://catalog.uwlax.edu/undergraduate/computerscience>) (B.S., m)
- Earth Science (<http://catalog.uwlax.edu/undergraduate/geography>) (m)
- Earth Science Education (<http://catalog.uwlax.edu/undergraduate/geography/earthscienceeducationminor>) (m)
- Exercise and Sport Science (<http://catalog.uwlax.edu/undergraduate/exerciseandsportscience>)
 - Exercise Science Emphasis
 - Fitness Track (B.S.)
 - Pre-Professional Track (B.S.)
 - Physical Education Emphasis (B.S.)

- Sport Management Emphasis (B.S.)
- General Science Education (<http://catalog.uwlax.edu/undergraduate/biology/general-science-education>) (Broad Field; second major only; open to Early Adolescence-Adolescence teacher certification program only)
- Geography (<http://catalog.uwlax.edu/undergraduate/geography>) (B.A., B.S., m)
 - Environmental Science Concentration (B.A., B.S.)
 - Geographic Information Science Concentration (B.A., B.S., m)
- Geoarchaeology (<http://catalog.uwlax.edu/undergraduate/geography>) (m)
- Geography Education (<http://catalog.uwlax.edu/undergraduate/geography>) (B.S., m)
- Health and Wellness Management (<http://catalog.uwlax.edu/undergraduate/healtheducation>) (B.S.)
- Inclusive Recreation (<http://catalog.uwlax.edu/undergraduate/recreationmanagement>) (m)
- Mathematics (<http://catalog.uwlax.edu/undergraduate/mathematics>) (B.A., B.S., m)
 - Applied Emphasis (B.A., B.S.)
 - Education Emphasis (B.A., B.S., m)
- Mathematics Education (<http://catalog.uwlax.edu/undergraduate/mathematics>) (B.S., m)
- Microbiology (<http://catalog.uwlax.edu/undergraduate/microbiology>) (B.S., m)
 - Biomedical Concentration (B.S.)
 - Business Concentration (B.S.)
 - Environmental Science Concentration (B.S.)
- Nuclear Medicine Technology (<http://catalog.uwlax.edu/undergraduate/nuclearmedicinetechology>) (B.S.)
- Nutrition (<http://catalog.uwlax.edu/undergraduate/nutrition>) (m)
- Physics (<http://catalog.uwlax.edu/undergraduate/physics>) (B.A., B.S., m)
 - Applied Physics Emphasis (B.S.)
 - Astronomy Emphasis (B.A., B.S., m)
 - Biomedical Concentration (B.S.)
 - Business Concentration (B.S.)
 - Computational Physics Emphasis (B.S.)
 - Optics Emphasis (B.S.)
- Physics Education (<http://catalog.uwlax.edu/undergraduate/physics>) (B.S., m)
- Public Health and Community Health Education (<http://catalog.uwlax.edu/undergraduate/healtheducation>) (B.S.)
- Radiation Therapy (<http://catalog.uwlax.edu/undergraduate/radiationtherapy>) (B.S.)
- Recreation Management (<http://catalog.uwlax.edu/undergraduate/recreationmanagement>) (m)
 - Community-based Recreation Emphasis (B.S.)
 - Generalist Emphasis (B.S.)
 - Outdoor Recreation Emphasis (B.S.)
 - Tourism Emphasis (B.S.)
- School Health Education (<http://catalog.uwlax.edu/undergraduate/healtheducation>) (B.S., m)
- Statistics (<http://catalog.uwlax.edu/undergraduate/mathematics>) (B.S., m)
 - Actuarial Science Concentration (B.S.)

- Therapeutic Recreation (<http://catalog.uwlax.edu/undergraduate/recreationmanagement>) (B.S.)

Dual degree programs

- Biology/Physical Therapy (<http://catalog.uwlax.edu/undergraduate/biology>)
- Chemistry/Engineering (<http://catalog.uwlax.edu/undergraduate/chemistry>)
- Clinical Laboratory Science/Clinical Microbiology (<http://catalog.uwlax.edu/undergraduate/clinicallaboratoryscience/dual-degree-clinical-lab-science-clinical-microbiology>)
- Computer Science/Engineering (<http://catalog.uwlax.edu/undergraduate/computerscience>)
- Computer Science/Software Engineering (<http://catalog.uwlax.edu/undergraduate/computerscience>)
- Mathematics/Engineering (<http://catalog.uwlax.edu/undergraduate/mathematics>)
- Physics/Engineering (<http://catalog.uwlax.edu/undergraduate/physics>)
- Physics/Physical Therapy (<http://catalog.uwlax.edu/undergraduate/physics>)

Concentrations

- Coaching Competitive Athletics (<http://catalog.uwlax.edu/undergraduate/exerciseandsportscience>)

College of Science and Health (SAH) Bachelor of Arts core requirements

B.S. and B.A. students graduating from the College of Science and Health are required to take two natural laboratory science courses selected from the general education laboratory science category (GE 05) and/or from BIO 203, BIO 210, BIO 304, CHM 104, ESC 221, ESC 222, PHY 104 or PHY 204, and they either must take two mathematics courses or one math course and one computer science course from the math/logical systems category of the general education requirements (GE 02). One of the two science courses must be from a department outside of the student's major department.

Note: Math courses can be pairs, i.e. 150 and 151; MTH/CS majors can use two science courses from same department.

For the Bachelor of Arts degree, students must complete a major from the college and proficiency in a foreign language at the 202 level or an ESL proficiency score of 80 or above on the La Crosse Battery of exams for non-native speakers of English. Contact the "*English as a Second Language Institute*" for eligibility and regulations. Students must also complete one of the following options. It is recommended that courses are selected in consultation with your advisor.

1. Complete a minor in the College of Liberal Studies/School of Arts and Communication; or
2. Complete an individualized option, consisting of 15 credits.
 - a. These courses must be from the College of Liberal Studies/School of Arts and Communication.
 - b. At least 9 credits must be earned at the 300/400 level.
 - c. General education courses may apply provided they are not being used to fulfill minimum general education requirements.

- d. Internship credits may not count toward the individualized option.

College of Science and Health (SAH) Bachelor of Science core requirements

B.S. and B.A. students graduating from the College of Science and Health are required to take two natural laboratory science courses selected from the general education laboratory science category (GE 05) and/or from BIO 203, BIO 304, BIO 210, CHM 104, ESC 221, ESC 222, PHY 104 or PHY 204, and they either must take two mathematics courses or one math course and one computer science course from the math/logical systems category of the general education requirements (GE 02). One of the two science courses must be from a department outside of the student's major department.

Note: Math courses can be pairs, i.e. 150 and 151; MTH/CS majors can use two science courses from same department.

For the Bachelor of Science degree, in addition to all other College of Science and Health core requirements, students from non-exempted programs¹ must complete one of the following options. It is recommended that courses are selected in consultation with students' academic advisor.

1. Complete a second major; or
2. Complete a minor outside the major; or
3. Complete an individualized option, consisting of 18 credits
 - a. At least 12 credits must be earned at the 300/400 level outside the major department.
 - b. The remaining six credits should come from
 - i 100 level or higher courses outside the major (General education courses may apply provided they are not being used to fulfill minimum general education requirements.); or
 - ii 300/400 level courses inside major not being used to fulfill major requirements.
 - c. Internship credits may not count toward the individualized option.

¹ The list of exempted SAH programs is below.

SAH college core exemptions

Students participating in the following programs are exempt from the college core requirements:

Athletic Training
 Biology Education
 Chemistry with a Business Concentration
 Chemistry with a Environmental Science Concentration
 Chemistry Education
 Clinical Laboratory Science
 Community Health Education
 Computer Science Major: Computer Engineering Technology Emphasis
 Computer Science Education
 Exercise and Sport Science – Exercise Science Fitness Track
 Exercise and Sport Science – Physical Education Teaching

Exercise and Sport Science – Sport Management
 Health and Wellness Management
 Mathematics Education
 Nuclear Medicine Technology
 Physics Education
 Radiation Therapy
 Recreation Management
 School Health Education
 Therapeutic Recreation

Pre-professional curricula

www.uwlax.edu/sah/pre-professional-programs/

Students are provided the opportunity to complete requirements in a variety of pre-professional fields on the campus prior to applying to other colleges and universities for admission to their professional programs. Pre-professional program requirements vary widely; some require a degree while others do not. **Students are expected to be aware of the requirements of the school to which they plan to apply; therefore, they need to select their course work carefully.** Pre-professional advisors on the campus can be of assistance to students in designing a curriculum in such programs. Contact one of the pre-professional advisors (<http://www.uwlax.edu/SAH/Pre-professional-programs/>) or inquire at the College of Science and Health Academic Services Office, 205 Graff Main Hall for more information. Pre-professional programs are NOT declared majors and are referred to as "tracks" in the WINGS student information center.

Pre-athletic training track

Undergraduate students interested in athletic training must declare an undergraduate major. The typical major is in exercise science-pre-professional track. Other majors are equally appropriate and feasible with appropriate planning. In addition to declaring an undergraduate major, students may select pre-athletic training as a secondary area of interest. The Pre-Athletic Training Program is intended to prepare students for application to a graduate program in athletic training.

General admission requirements for graduate athletic training programs include:

- An undergraduate degree or completion of an undergraduate degree prior to starting the program.
- Completion of all prerequisite course work including:

Code	Title	Credits
	General Biology	4 credits (including lab)
	Human Anatomy or Human A&P I	4 credits (including lab)
	Human Anatomy or Human A&P II	4 credits (including lab)
	Chemistry	4 credits (including lab)

Physics I	4 credits (including lab)	4 requirements. Admission to dental school is based on grade point average, interviews, aptitude tests, and letters of recommendation. An aptitude test is taken in the year preceding application to dental school.
Physics II	4 credits (including lab)	
Statistics	3-4 credits	
Physiology of Exercise	3 credits	
Biomechanics or Kinesiology	2-3 credits	
Motor Learning or Behavior	3 credits	
Nutrition	3 credits	

- Attainment of at least a 3.00 cumulative GPA
- Completion and submission of Graduate Records Examination (GRE) scores

Pre-chiropractic track

Pre-chiropractic students enroll at UWL for at least three years (90 credits) before being admitted to professional chiropractic schools; however, most chiropractic colleges strongly recommend a bachelor's degree. Students should sample liberally from the general education curriculum (English, communication, psychology, other humanities and social sciences). Minimal science requirements are 24 credits (biology, chemistry, physics). Some chiropractic universities require more than 24 credits of science coursework. Contact the pre-chiropractic advisor (<https://www.uwlax.edu/csh/pre-professional-programs/pre-chiropractic>) or explore the website for more information.

Pre-dentistry track

The usual pre-professional education requirements for admission to dental school stipulate two academic years of liberal arts study; however, many of the dental schools in the United States require three years of college education, and most prefer baccalaureate degree candidates. Dental school requirements in pre-professional curricula vary but a first year basically includes:

BIO 105	General Biology	4
Select one of the following:		4-8
BIO 303	Vertebrate Form and Function	
BIO 312 & BIO 313	Human Anatomy and Physiology I and Human Anatomy and Physiology II	
CHM 103 & CHM 104	General Chemistry I and General Chemistry II	10
ENG 110 or ENG 112	College Writing I or College Writing AP (Advanced Placement)	3
Select one of the following:		8
PHY 103 & PHY 104	Fundamental Physics I and Fundamental Physics II	
PHY 203 & PHY 204	General Physics I and General Physics II	

A course in mathematics

The pre-dentistry advisor (<https://www.uwlax.edu/csh/pre-professional-programs/dentistry>) should be consulted as to full curriculum

Pre-engineering track

Most of the basic mathematics, chemistry and physics courses that the prospective engineer needs in the first two years of an engineering curriculum can be taken at UWL, and a wide choice of electives is also available. In the first two years, every pre-engineer should complete three semesters of calculus, two semesters of chemistry, and two semesters of physics. Since requirements vary with the engineering school and the particular major, students should see the pre-engineering advisor (<https://www.uwlax.edu/csh/pre-professional-programs/engineering>) in the chemistry, computer science, mathematics, or physics department as early as possible. The advisor can furnish information about specific majors within engineering schools. Engineering curricula require four or more years of study; therefore, students spending the first two years at UWL will need to spend two or more years at an engineering school to complete degree requirements.

Pre-forestry (natural resources, conservation, wildlife management) track

A curriculum is available to meet the needs of the majority of students who will later major in such diverse fields as wildlife management, forestry, and conservation education. However, students entering one of these fields are reminded that most forestry schools set their own requirements for admission, and thus, it is imperative that exact requirements be obtained from current catalogs of the schools to which students plan to transfer to complete their professional training. Generally, the requirement for admission with junior standing to professional school is 60 semester hours.

In some cases, students will find it advantageous to earn a bachelor's degree before entering the professional program. Students may do so by continuing for two more academic years at UWL and fulfilling requirements prescribed for that degree. Students electing to follow this plan should allow extra years to complete graduate work in the professional school. Students are urged to contact the university's pre-forestry advisor (<https://www.uwlax.edu/csh/pre-professional-programs/pre-forestry>) early in their first semester.

Pre-medicine track

Minimal academic requirements to qualify for admission to medical school include a number of courses as part of, or in addition to, a regular academic major leading to a baccalaureate degree. Pre-medicine requirements include at least eight semester hours in biology (general and advanced biology courses); 16 semester hours of chemistry including one year of general and eight semester hours of organic; two semesters of mathematics through pre-calculus and statistics; eight semester hours of physics; and three-six semester hours of English (writing intensive and/or upper division coursework may be required). Academic preparation in all of these areas is available at UWL.

Although the majority of pre-medical students major in chemistry, biology, or microbiology, the student may major in any field of interest as long as the minimal requirements are satisfied.

Admission to medical school is highly competitive, and admission decisions are based on factors such as overall grade point average, grade point average in the required science courses, performance on the national Medical College Admission Test (MCAT), usually taken in the spring of the junior year, non-academic credentials (activities and work experiences), letters of evaluation from faculty, and a personal interview. Contact the pre-med advisor (<https://www.uwlax.edu/csh/>)

pre-professional-programs/medicine) or explore the website for more information.

Pre-occupational therapy track

Occupational therapists are health professionals who work with individuals to maximize performance in their everyday life tasks when impacted by injury, disease, or other health risk. Occupational therapists are part of a healthcare team that may also include physicians, physician assistants, physical therapists, speech pathologists, and recreational therapists. "Occupation" refers to those everyday meaningful tasks that individuals do each day. The goal of occupational therapy is to help individuals successfully engage in purposeful tasks that comprise daily life.

Undergraduate students interested in occupational therapy must declare an undergraduate major. In addition to declaring an undergraduate major, students then select pre-professional occupational therapy as a secondary area of interest.

General admission requirements (<http://www.uwlax.edu/Occupational-Therapy-MS/Admission-requirements>) for the UW-La Crosse occupational therapy graduate program (<http://www.uwlax.edu/occupational-therapy-ms>) include:

- An undergraduate degree or completion of an undergraduate degree prior to starting the program
- Completion of all prerequisite course work including

BIO 312	Human Anatomy and Physiology I	4
BIO 313	Human Anatomy and Physiology II	4
PHY 125	Physics for the Life Sciences	4
PSY 212	Lifespan Development	3
PSY 204	Abnormal Psychology	3
STAT 145	Elementary Statistics	4
Sociology or anthropology course		3

- Minimum grade attainment of at least a 3.00 cumulative GPA
- No more than two prerequisite courses with a grade of "C"
- No prerequisite course work with a grade below "C"

The occupational therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE's telephone number is 301.652.6611 x2914. Their fax number is 240.762.5140, email is accred@aota.org, and webpage is www.acoteonline.org (<http://www.acoteonline.org>). The program is 30 months long and includes six months of full-time Level II fieldwork. Students must complete Level II fieldwork within 24 months of the completion of the didactic portion of the curriculum in order to graduate. Graduates of the program will be eligible to sit for the national certification examination for occupational therapy administered by the National Board for certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). In addition, most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. A felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

Pre-optometry track

Students should plan to complete an undergraduate degree in some field (usually biology or chemistry). Typical requirements for admission to an optometry program include:

BIO 105 & BIO 203	General Biology and Organismal Biology	8
CHM 103 & CHM 104	General Chemistry I and General Chemistry II	10
CHM 300 or CHM 303 & CHM 304 & CHM 305	Survey of Organic Chemistry or Organic Chemistry Theory I and Organic Chemistry Theory II and Organic Chemistry Laboratory	5
Select one of the following:		8
PHY 103 & PHY 104	Fundamental Physics I and Fundamental Physics II	
PHY 203 & PHY 204	General Physics I and General Physics II	
MTH 207	Calculus I	5

Additional courses in English, Psychology and Sociology, along with additional electives in biology are usually also required. Consult the pre-optometry advisor (<https://www.uwlax.edu/csh/pre-professional-programs/pre-optometry>) for complete undergraduate curriculum requirements. The Optometry Admission Test (OAT) must be taken before or during the semester in which students apply for admission to a school of optometry.

Pre-osteopathic medicine track

The statement in the section on pre-medicine (<https://www.uwlax.edu/csh/pre-professional-programs/medicine>) applies equally to pre-osteopathic (<https://www.uwlax.edu/csh/pre-professional-programs/osteopathy>) medicine. Medical school and osteopathic curricula are nearly identical, and the practice of medicine by graduates of either type of school is essentially identical. Osteopathy is best considered an alternative within medicine rather than an alternative to medicine.

Pre-pharmacy track

Most pharmacy programs offer the Doctor of Pharmacy degree. These programs involve a pre-pharmacy curriculum (<https://www.uwlax.edu/csh/pre-professional-programs/pharmacy>) of about 70 credits that can be taken at UWL. The professional program that is taken at a College of Pharmacy is an additional four years. The pre-pharmacy curriculum is set by the individual colleges of pharmacy but generally consists of:

BIO 105	General Biology	4
BIO 312	Human Anatomy and Physiology I	4
BIO 313	Human Anatomy and Physiology II	4
BIO 306 or BIO 315	Genetics or Cell Biology	4
CHM 103	General Chemistry I	5
CHM 104	General Chemistry II	5
CHM 303	Organic Chemistry Theory I	3
CHM 304	Organic Chemistry Theory II	3
CHM 305	Organic Chemistry Laboratory	2
PHY 103	Fundamental Physics I	4
PHY 104	Fundamental Physics II	4
MTH 207	Calculus I	5
STAT 145	Elementary Statistics	4

Plus non-math, non-science general education courses

It is very important to work with the pre-pharmacy advisor (<https://www.uwlax.edu/csh/pre-professional-programs/pharmacy>) as program requirements change frequently.

Pre-physical therapy track

Undergraduate students interested in physical therapy must declare an undergraduate major. Typical majors include biology, exercise & sport science, psychology, and physics but other majors are equally appropriate and feasible with appropriate planning. In addition to declaring an undergraduate major, students may select pre-professional physical therapy as a secondary area of interest. Dual degree agreements are available for biology majors and physics majors in which students receive both a bachelor of science and a graduate physical therapy degree from UW-La Crosse. The total length of time for both degrees is approximately five and three-quarter years. It is important that students selecting this option work with their major advisor early and declare their intent officially.

General admission requirements (<http://www.uwlax.edu/Physical-Therapy-DPT/Admission-requirements>), including specific application instructions and deadlines, for the UW-La Crosse physical therapy graduate program (<http://www.uwlax.edu/physical-therapy-dpt>) include:

- An undergraduate degree or completion of an undergraduate degree prior to starting the program (except for declared dual degree students)
- Completion of all prerequisite course work including

BIO 105	General Biology	4
BIO 312	Human Anatomy and Physiology I	4
BIO 313	Human Anatomy and Physiology II	4
CHM 103	General Chemistry I	5
CHM 104	General Chemistry II	5
PHY 103	Fundamental Physics I	4
or PHY 203	General Physics I	
PHY 104	Fundamental Physics II	4
or PHY 204	General Physics II	
Any psychology course		
Any sociology course or a second psychology course		
STAT 145	Elementary Statistics	4
- Attainment of at least a 3.00 cumulative GPA
- Completion of required volunteer experiences with letters of recommendation
- Completion and submission of Graduate Records Examination (GRE) scores

The program typically conducts early and general admissions screening of completed applications. The UWL PT Program participates in the Physical Therapy Centralized Application Service (PTCAS).

Pre-physician assistant studies track

Physician assistants (PAs) practice medicine with physician supervision. To become a PA, students must be admitted to an accredited PA education program. Like many PA programs across the country, the UWL – Gundersen – Mayo Physician Assistant Program (<https://www.uwlax.edu/grad/physician-assistant-studies>) is a graduate program. Thus, undergraduate students interested in the UWL program must declare a primary undergraduate major in another field in order to complete a baccalaureate degree. Pre-physician assistant studies then

may be selected as a track and an appropriate academic advisor will be assigned.

Prerequisite requirements are quite variable among the appropriate 140 PA programs across the country. For the UWL graduate PA program, at a minimum, the following prerequisite requirements apply:

Biology: At least 14 semester hours of biology including at least two lab courses:

BIO 312	Human Anatomy and Physiology I	4
BIO 313	Human Anatomy and Physiology II	4
MIC 230	Fundamentals of Microbiology	4
Select one of the following:		2-4
BIO 306	Genetics	
BIO 406	Parasitology	
BIO 408	Developmental Biology	
BIO 413	Medical Mycology	
BIO 424	Human Endocrinology	
BIO 432	Biology of Cancer	
BIO 443	Molecular Mechanism of Disease and Drug Action	
BIO 465	Neurophysiology	
BIO 466	Human Molecular Genetics	
MIC 310	Immunology	
MIC 410	Immunology Laboratory	

Chemistry: A minimum of 11 semester hours of chemistry including at least two of these courses which must include laboratory:

CHM 103	General Chemistry I	5
or CHM 104	General Chemistry II	
Select one of the following:		5-6
CHM 300	Survey of Organic Chemistry	
CHM 303	Organic Chemistry Theory I	
& CHM 304	and Organic Chemistry Theory II	
Select one of the following:		3-4
BIO 315	Cell Biology	
BIO 435	Molecular Biology	
CHM 325	Fundamental Biochemistry	
CHM 417	Biochemistry I: Macromolecules	
& CHM 418	and Biochemistry II: Metabolism and Genetic Information	

Mathematics: A minimum of two semesters including:

MTH 151	Precalculus	4
or MTH 207	Calculus I	
STAT 145	Elementary Statistics	4
or STAT 405	Statistical Methods	

Psychology:

Select one of the following:		3
PSY 100	General Psychology	
PSY 204	Abnormal Psychology	
PSY 210	Developmental Psychology	
PSY 212	Lifespan Development	
PSY 356	The School-aged Child	
PSY 357	Adolescence	

PSY 358 Adulthood

Academic Aptitude: A minimum cumulative GPA on all post-high school courses of 3.00. A minimum science GPA of 3.00. Submission of Graduate Record Exam (GRE) scores is required.

Health Care Experience: Prior direct patient care health experience is expected. Such experience provides evidence of a career commitment to healthcare as a PA.

Application to the UWL – Gundersen – Mayo PA program should be made during the summer prior to the expected year of graduation. Pre-PA students should consider making application to several PA programs and carefully review the specific requirements of the programs in which they are interested. Many programs, including the UWL – Gundersen – Mayo PA program, utilize the Centralized Application Service for Physician Assistants (CASPA) and require a program specific supplemental application.

Pre-podiatry track

A podiatrist is a medical specialist who has unlimited licensure to practice on the ankle and foot. Requirements for admission to a school of podiatric medicine (<https://www.uwlax.edu/csh/pre-professional-programs/podiatry>) are the same as those listed in the pre-medicine (<https://www.uwlax.edu/csh/pre-professional-programs/medicine>) section.

Pre-veterinary track

The University of Wisconsin-La Crosse offers courses that satisfy the requirements for admission to any school of veterinary medicine. Requirements generally include courses in biology, microbiology, chemistry, physics, English composition, mathematics, social sciences, and humanities. Several majors at UWL (particularly biology, microbiology and chemistry) provide an excellent basis for meeting course requirements while pursuing a bachelor's degree. Applicants are also required to take the Graduate Record Exam (GRE) and have documented animal work experience. Check veterinary schools' websites for the most current information. Contact the pre-veterinary medicine advisor (<https://www.uwlax.edu/csh/pre-professional-programs/veterinary-medicine>) for more information.

Joint institution programs

International dual degree program in computer science: The College of Science and Health administers a joint degree program with South Central University for Nationalities (http://catalog.uwlax.edu/undergraduate/scienceandhealth/SCUN_Agreement_with_UWL_-_2011.pdf) (SCUN), China. Chinese students at SCUN may enroll in this 3+2 program to receive degrees from both institutions; students complete three years of undergraduate degree work at SCUN and two years of graduate work at UWL. Successful completion of all program requirements results in the conferring of the Bachelor of Science in Computer Science degree by SCUN and the conferring of a Master of Software Engineering degree by UW-La Crosse.

WTC: Articulation agreements between Western Technical College (WTC) and UWL facilitate the transfer of credit between the two institutions. The following College of Science and Health programs are affected:

- Computer Science-Computer Engineering Technology Concentration: Computer Engineering Technology and Electrical Engineering Technology students may transfer into UWL's program with partial credit already completed.

- Nuclear Medicine Technology: Radiography students may transfer into UWL's program with partial credit already completed.
- Radiation Therapy: Radiography students may transfer into UWL's program with partial credit already completed.

Other institutions: The following College of Science and Health programs have joint programs with other Wisconsin Technical College System institutions:

- Nuclear Medicine Technology: Radiography students from Chippewa Valley Technical College, Milwaukee Area Technical College, and Northcentral Technical College may transfer into UWL's program with partial credit already completed.
- Radiation Therapy: Radiography students from Blackhawk Technical College, Chippewa Valley Technical College, Lakeshore Technical College, Madison College, Milwaukee Area Technical College, and Northcentral Technical College may transfer into UWL's program with partial credit already completed.
- Recreation Management: Recreation Management students from Madison College may transfer into UWL's program with partial credit already completed.

Contact the UWL Admissions Office (<http://www.uwlax.edu/admissions/international-student>) for more specific information on these joint programs. Students who earned an associate degree from another UW System institution are exempt from UWL's general education requirements, although students must still meet all other UWL degree, college, and major requirements.
