Post-Baccalaureate Certificate in Zoo & Aquarium Studies

The Department of Biological Sciences at Western Illinois University offers an 18-semester hour post-baccalaureate certificate program designed to provide students with practical experience in animal husbandry and animal training. In addition, the certificate provides students with an understanding of space, personnel, and budget management; policies of profit versus nonprofit facilities; and ethical and legal issues related to working at a zoo, aquarium, or marine park. Most facilities require a bachelor’s degree, and this program sets students apart from other potential employees, as well as provides an avenue for people already employed at a zoo or aquarium to advance their careers.

Admission Requirements

Students must apply to the program through the WIU School of Graduate Studies. Applicants must have at least a 2.75 (on a 4.0 scale) cumulative undergraduate GPA.

Official transcripts from all institutions attended should be sent to the School of Graduate Studies. A cumulative GPA will then be calculated, and the file will be sent to the Department of Biological Sciences for an admission decision. Students must be able to meet the prerequisites of the courses required in the program.

Benefits of the Certificate

• Detailed knowledge about the biology of a special group of animals often held in captivity—The student selects special courses in mammalogy, marine mammalogy, ornithology, ichthyology, or herpetology to obtain advanced graduate training in that group.
• Background on the basic theories, concepts, and techniques in animal training.
• Graduate-level coursework in management skills such as personnel management, budgets, problem-solving, time-management, organizational structure, negotiation, reward systems, and leadership—This information is tailored to the business operations of a zoo or aquarium.
• Information on policies and regulations that affect the operations of zoos and aquariums.
• Practical hands-on experience at a facility.
• A network of professionals already employed in the field.
• Better access to available jobs at zoos or aquariums.

Additional Benefits of the Certificate

• Students with a bachelor’s degree in a wide variety of fields can be accepted into the program such as Psychology, Animal Science, Biology, Zoology, and Park, Recreation & Tourism.
• The certificate can be completed in one calendar year.
• Students can join the program during fall, spring, or summer terms. Most courses are held one afternoon per week for eight weeks.
• Zoos and aquariums often hire from a pool of volunteers, so the practicum can lead to full-time employment.
• This certificate is perfect for people who are already employed at a zoo or aquarium and want continuing education and recognition for job advancement.

Certificate Requirements

Students must have a cumulative 3.0 GPA for all coursework required for completion of the certificate and pass the practicum. The work required for the certificate must be completed within three calendar years. A post-baccalaureate certificate will not be awarded to a student who earns more than 3 semester hours of “C,” “D,” “F,” or “U” grades in the graduate-level courses required for the completion of the certificate. Courses with a grade of “D” or less will not satisfy certificate requirements. Transfer work or course substitutions are not allowed in the certificate programs. A thesis is not required.

Many students also enroll in a Master’s degree program in Biology at WIU while completing their certificate. All graduate courses completed in the certificate program also apply towards a Master’s degree in Biology at WIU.
Four Required Courses (3 s.h each) All classes are available at WIU-Quad Cities in Moline, Illinois, OR at the Shedd Aquarium in Chicago. Students based in Macomb will need to travel to either Moline or Chicago to take the four required courses. (Note: Summaries of some courses have been prepared in order to provide more detailed information than catalog descriptions.)

1. Zoo/Aquarium Practicum (ZOOL 578). Credit is given for experience as a volunteer, intern, or employee of a zoo or aquarium. Area facilities include, but are not limited to, the Niabi Zoo in the Quad Cities, Shedd Aquarium, Lincoln Park Zoo, Brookfield Zoo, Cosley Zoo, Wildlife Prairie Park, Peoria Zoo, St. Louis Zoo, or Springfield Zoo. Students provide verification of performance by a letter of recommendation from a supervisor at the facility. Students must work a minimum of 120 hours at the facility. Students arrange the practicum directly with the facility. Some students choose to use this as an opportunity for travel and work at a facility outside the Midwest.

2. Biological Studies in Zoos and Aquaria (ZOOL 584). Topics include research and design of studies conducted on captive animals. Methods of behavioral observations are described, and students conduct behavioral observations and a time-budget on captive animals. Discussions cover policies and housing standards; careers at zoos and aquaria; and obtaining internships, volunteer positions, or employment. Legal requirements for facilities are examined. International policies regarding sale and trade of animals are also discussed. Students create a behavioral enrichment project and design a zoo and budget using Zootycoon software.


Animal Training (ZOOL 585). Taught by Ken Ramirez, world-famous animal trainer. Topics include strategies and methods of training animals, animal psychology, animal behavior, and training animals for research. Demonstrations of training methods are conducted on live animals at the Shedd Aquarium. Discussions emphasize marine mammals, but also include the training of service dogs, horses, and birds. Students train an animal of their choice.

4. Organizational Management in Zoos and Aquaria (BIOL 583). A team-taught course led by staff at the Shedd Aquarium and Lincoln Park Zoo, which describes specifics of their business such as profit vs. nonprofit, organizational structure, personnel management, role of education, marketing, public relations, and the role of exhibit designers. Students create a business plan for a zoo.

Two Electives (3-4 s.h each) — In consultation with the PBC Coordinator or department chairperson, students must select two electives. See “Electives” under “Course Requirements” at wiu.edu/grad/catalog/zooaquastudies.php.

For Gainful Employment Disclosure, visit wiu.edu/grad/gainfulemployment.

Contact Information
For admissions process and general program information, contact the School of Graduate Studies, Western Illinois University, 1 University Circle, Macomb, IL 61455, (309) 298-1806, (877) WIU GRAD toll-free, Grad-Office@wiu.edu, wiu.edu/grad.

For specific program questions, contact Dr. Charles Lydeard, Department Chair and Coordinator of the Post-Baccalaureate Certificate program, Western Illinois University, 1 University Circle, Macomb IL 61455, (309) 298-1546, C-Lydeard@wiu.edu, wiu.edu/biology.

“Living in the Midwest, it was difficult for me to find a post-graduate program that let me explore marine mammalogy while gaining insight on animal behavior and the functions of zoos and aquaria. WIU offered the perfect solution! Completing the Graduate Certificate in Zoo and Aquarium Studies allowed me access to knowledgeable professors and professionals, behind the scenes tours of local facilities, and an array of interactive and relevant classes. This program created a professional network that I still depend on even after being in the field for seven years!”

— Lisa Osterga, Coordinator of Adult Programs, John G. Shedd Aquarium