

American Fisheries Society Certification (<https://fisheries.org/membership/afs-certification/>)

This document provides guidance for GVSU students interested in professional certification from the American Fisheries Society (AFS). This guidance is intended for Fisheries & Aquatic Sciences (FAS) majors, but AFS certification can be achieved with a variety of majors.

Below are GVSU courses that meet the **Minimum Coursework Requirements** for *Associate Fisheries Professional* for students that have obtained a BA/BS on or after 1 July 2002. See [Frequently Asked Questions about Certification](https://fisheries.org/membership/afs-certification/faqs/) on the AFS webpage (<https://fisheries.org/membership/afs-certification/faqs/>) for additional guidance on coursework.^a

Courses that fulfill the General Education requirement are noted.

- A. **Fisheries & Aquatic Sciences courses**—Four courses; three of which must be directly related to fisheries science. At least one course must cover principles of fisheries science and management and one course must cover fisheries and/or aquatic sampling techniques or its equivalent.

BIO 362 Biology and Diversity of Fishes (4) and NRM 472 Fisheries Management (3), and two of the following: BIO 370 Marine Biology (3), BIO 440 Limnology (3), BIO 451 Stream Ecology (3), NRM 454 Watershed and Wetland Management (4). However, BIO 323 Aquatic and Wetland Plants (3), BIO 402 Aquatic Insects (3), and BIO 413 Freshwater Algae (3) also should count as aquatic sciences courses.

- B. **Other Biological Sciences courses**—When added to Section A courses, the student must have 30 semester hours.

Most BIO-designated courses fulfill this requirement; the recommendation is to use courses that focus on general biology, ecology, evolution, genetics, and botany. Additionally, NRM 263 Forest Vegetation of the Great Lakes Region (2), NRM 308 Wildlife Ecology (4), and NRM 408 Wildlife Management (4) count in this category.

- C. **Physical Science courses**—Must total 15 semester hours.

Any Chemistry (CHM), Geology (GEO), and Physics (PHY) courses count in this category. Additionally, NRM 405 GIS Applications in Natural Resources (3) [FAS Elective option] and NRM 281 Principles of Soil Science (4) count in this category.

- D. **Mathematics & Statistics courses**—6 semester hours. Must include one calculus and one statistics course, or two statistics courses.

MTH 125 Survey of Calculus (3), MTH 201 Calculus I (4), STA 215 Introduction to Applied Statistics (3), STA 216 Intermediate Applied Statistics (3)

E. **Communications courses.** Must total 9 semester hours.

WRT 150 Strategies in Writing (4) [Writing Gen Ed]^b, COM 201 Speech (3) [Social & Behavioral Science Gen Ed]

SWS courses can count here (ideally courses from categories A, B, or F) and count in another category.

These courses will *likely* count: WRT 200 Introduction to Professional Writing (3), WRT 305 Writing in the Disciplines (3), COM 101 Concepts in Communication (3), COM 202 Critical Interpretation (3) [Philosophy & Literature Gen Ed], COM 203 Argument and Analysis (3)

F. **Human dimensions courses.** Must total 6 semester hours.

BIO 338 Environmental Ethics (3) [Issues Gen Ed], NRM 451 Natural Resource Policy (3) [Issues Gen Ed], ENS 238 Polluted, Poisoned, and Pillaged: Exploring Michigan's Waterways Through Time (3) [Historical Analysis Gen Ed], ENS 303 Introduction to US Environmental Policy (3) [Issues Gen Ed], ECO 345 Environmental and Resource Economics (3) [*prerequisite ECO 211 and permission of the Seidman College of Business*; Issues Gen Ed], SOC/ENS/NRM 222 Social Inquiry and West Michigan Water (3)

^a If questions remain regarding coursework, then contact Dr. Carl Ruetz (ruetzc@gvsu.edu) or AFS directly (certification@fisheries.org).

^b WRT 120 Strategies in Writing – Stretch I (3) and WRT 130 Strategies in Writing – Stretch II (3) can be used in place of WRT 150.