

UW School of Aquatic and Fishery Sciences – Undergraduate Program

UW School of Aquatic & Fishery Sciences BS Degree Requirements

This worksheet is a great planning tool but all students interested in the AFS degree should meet with the adviser to discuss an individual course of study. Students in good academic standing may declare the AFS major at any time. Email safsadv@uw.edu for more information about the degree or to make an appointment to meet the adviser.

College of Environment General Education Requirements (58 credits)

Q/SR, Addl Areas of Knowledge and Writing requirements will be satisfied by AFS degree courses and so aren't tracked here

- C – English Composition (5cr)
- DIV – Diversity (3cr)
- NW – Natural World (20cr – 10cr cannot overlap*)
_____ () _____ () _____ () _____ ()

***Overlap Restriction** – 10 credits each of NW and I&S may not overlap with AFS degree requirements below or be courses in the FISH prefix

- I&S – Individuals and Society (20cr – 10cr cannot overlap*)
_____ () _____ () _____ () _____ ()
- VLPA – Visual, Literary and Performing Arts (10cr)
_____ () _____ () _____ ()

AFS Degree Requirements – Core Science & Math Courses (50 credits)

Calculus
2 courses, 10cr

Choose one 2-course sequence from the following:

- a. Q SCI 291 (5) Analysis for Biologists I (AutWinSum) *Pre-req: MATH 120 or Q SCI 190*
- Q SCI 292 (5) Analysis for Biologists II (WinSprSum) *Pre-req: Q SCI 291 or MATH 124*
- b. MATH 124 (5) Calculus I (AutWinSprSum) *Pre-req: 2.5 in MATH 120*
- MATH 125 (5) Calculus II (AutWinSprSum) *Pre-req: 2.0 in MATH 124*

Statistics 5cr

- Q SCI 381 (5cr) Intro to Probability & Stat (AutWinSprSum) *Pre-req: MATH 120 or Q SCI 190*

Chemistry
2 courses, 10cr

Choose one 2-course sequence from the following:

- a. CHEM 120 (5) Principles of Chem I (AutSum) *Pre-req: Gen Chem Placement Test*
- OCEAN 295 (5) Chemistry of Marine Organic Carbon (Win) *Pre-req: CHEM 120 or CHEM 152*
- b. CHEM 120 (5) Principles of Chem I (AutSum) *Pre-req: Gen Chem Placement Test*
- CHEM 220 (5) Principles of Chem II (Win) *Pre-req: 1.7 in CHEM 120 or CHEM 142*
- c. CHEM 142 (5) Gen Chem I (AutWinSprSum) *Pre-req: Gen Chem Placement Test*
- CHEM 152 (5) Gen Chem II (AutWinSprSum) *Pre-req: 1.7 in CHEM 142*

Biology
3 courses, 15cr

- 1. BIOL 180 (5) Intro Bio (AutWinSprSum)
- 2. BIOL 200 (5) Intro Bio (AutWinSprSum) *Pre-req: 1.7 in BIOL 180; CHEM 152, 220 or OCEAN 295*
- 3. **Choose one:**
 - FISH 270 (5) Aquatic Ecophysiology (Win) *Pre-req: BIOL 200*
 - BIOL 220 (5) Intro Bio (AutWinSprSum) *Pre-req: 2.0 in BIOL 200*

Physics
1 course, 4-5cr

Choose one:

- PHYS 114 (4) General Physics (AutWinSprSum)
- PHYS 121 (5) Mechanics (AutWinSprSum)

Physical World
2 courses, min. 6cr

Choose any two:

- PHYS 115 (5) General Physics (AutWinSprSum)
- PHYS 116 (5) General Physics (AutWinSprSum)
- OCEAN 210 (4) Integrative Oceans (AutWin)
- OCEAN 285 (5) Fluid Mechanics & Waves (Aut) *Pre-req: PHYS 114, Q SCI 292*
- OCEAN/ESS 230 (3 or 5) Rivers & Beaches (Aut)
- ENVIR 313/ESS 315 (5) Environmental Earth Science (Aut) *Pre-req: ESS 101, 105, 210, or 211*
- ATM S 211 (5) Climate Change (AutSprSum)
- GEOG 205 (5) Intro to Physical Science & Environment (Aut)
- _____ ()

Continued on back

<https://fish.uw.edu/students/> | safsadv@uw.edu | 206.543.7457

UW School of Aquatic and Fishery Sciences – Undergraduate Program

AFS Degree Requirements – FISH Courses (45 credits, 2.0 Cumulative GPA)

Science Writing 3cr FISH 290 (3) Scientific Writing & Communication (AutWin)

Career Prep 1cr FISH 300 (1) Opportunities in Marine Sciences (Win)

Natural History
2 courses, 10cr FISH 311 (5) Biology of Fishes (Win)
 FISH 310 (5) Biology of Shellfish (Spr)

Core Breadth*
3 courses, 15cr

**all Core count towards "W" requirement*

Choose any three (5cr sections only – 3cr sections will not count for AFS requirements):

- FISH 312 (5) Fisheries Ecology (Spr) *Pre-req: FISH 270 or BIOL 220*
- FISH 323 (5) Conservations & Management of Aquatic Resources (Aut)
- FISH 324 (5) Aquatic Animal Physiology & Reproduction (Win) *Pre-req: FISH 270 or BIOL 220*
- FISH 340 (5) Genetics & Molecular Ecology (Aut) *Pre-req: BIOL 200*

Upper Division FISH 400-level Electives
4 courses, min. 16cr

NOTE:

Courses and quarters offered are subject to change without notice

Choose any four (must total 16 credits):

- FISH 404 (5) Diseases of Aquatic Animals (Spr – even yrs)
- FISH 406 (5) Parasite Ecology (Aut) *Pre-req: BIOL 180*
- FISH 423 (4) Aquatic Invasion Ecology (Aut – odd yrs) *Pre-req: BIOL 180 or BIOL 462*
- FISH 424 (5) Biology & Culture of Aquatic Organisms (Spr – odd yrs)
- FISH 428 (5) Stream & Watershed Restoration (Spr – odd yrs) *Pre-req: FISH 312*
- FISH 437 (4) Fisheries Oceanography (Win)
- FISH 441 (3) Integrative Environmental Physiology (Spr)
- FISH 444 (5) Conservation Genetics (Win)
- FISH 447 (3) Watershed Ecology & Mgmt (Spr) *Pre-req: BIOL 180, FISH 101, or ESRM 201*
- FISH 448 (2) Watershed Ecology & Mgmt Lab (Spr) *Pre-req: FISH 447, may be taken conc*
- FISH 450 (3 or 5) Salmonid Behavior (Aut)
- FISH 452 (3) Marine Geospatial Information Science (Aut)
- FISH 454 (5) Ecological Modeling (Win)
- FISH 455 (3 or 5) Fish and Wildlife Toxicology (Win)
- FISH 458 (4) Modeling & Estimation in Conserv & Resource Mgmt (Spr) *Rec: Knowledge of R Prog*
- FISH 461 (4) Resource Economics for Mgmt & Policy (Aut) *Pre-req: FISH 230, 3XX or ENVIR 235*
- FISH 464 (4) Arctic Marine Vertebrate Ecology (Win – odd yrs) *Pre-req: BIOL 180*
- FISH 473 (3) Limnology (Aut) *Pre-req: BIOL 180*
- FISH 474 (2) Limnology Lab (Aut) *Pre-req: FISH 473, may be taken concurrently*
- FISH 475 (5) Marine Mammalogy (Spr)
- FISH 478 (3) Topics in Sustainable Fisheries (Win – odd years)
- FISH 489* (5) Peer Teaching (instructor permission)
- FISH 491* (12) Aquatic Ecological Research in Alaska (Sum – even yrs)
- FISH 492† (9) Ecology & Conservation of Marine Birds & Mammals (Sum FHL)
- FISH 497 (3-5) Special Topics (Qtr varies; not always applicable to requirement)
- FISH 498° (1-15) Internship/Experiential Learning
- FISH 499° (1-15) Research
- FISH 500-level – Grad level FISH courses may be applied by petition; see SAFS Adviser for more information. Registration in 500-level courses requires permission of instructor.

EXCLUSIONS AND LIMITATIONS:

**Maximum 5 credits in either of FISH 489 & FISH 491*

†Maximum 3 credits applicable to AFS degree requirements; may petition for up to 5

° Maximum 3 total combined credits in FISH 498 & FISH 499

Excluded: FISH 453, 477, and all capstone credits are not applicable to 400-level elec requirement

AFS Degree Requirements – Capstone Research (7 credits)

Capstone Research
3 courses, 7cr FISH 493 Capstone Prep (AutWinSpr) *Pre-req: FISH 290*
 FISH 494 (3) Capstone Project I *Pre-req: FISH 493, Q SCI 381*
 FISH 495 (3) Capstone Project II *Pre-req: FISH 494*