

## 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](mailto:safsadv@uw.edu) for more information about the degree or to make an appointment to meet the adviser.

#### ☐ College of Environment General Education Requirements (min. 55 credits)

**RSN, Additional Areas of Inquiry, & Writing** requirements will be satisfied by AFS degree courses and so aren't tracked here

**Overlap Restriction:** 10 credits each of NSc and SSc may not overlap with AFS degree requirements below or be courses in the FISH prefix

- ☐ C – English Composition (5cr)
- ☐ DIV – Diversity (5cr) *May overlap with NSc/SSc/A&H*
- ☐ NSc – Natural Sciences (20cr – 10cr cannot overlap\*)  
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- ☐ SSc – Social Sciences (20cr – 10cr cannot overlap\*)  
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- ☐ A&H – Arts & Humanities (10cr)  
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#### ☐ AFS Degree Requirements – Core Science & Math Courses (min. 50 credits)

☐ **Calculus**  
2 courses, 10cr

**Choose one 2-course sequence from the following:**

- a. ☐ Q SCI 291 (5) Calc for Natural Systems I: Derivatives (AutWin) *Pre-req: Placement Test or MATH 120*  
☐ Q SCI 292 (5) Calc for Natural Systems II: Integrals (WinSpr) *Pre-req: Q SCI 291 or MATH 124*
- b. ☐ MATH 124 (5) Calculus I (AutWinSprSum) *Pre-req: Math Placement Test or 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 (AutWinSpr) *Pre-req: MATH 120, MATH 124, or Q SCI 291*

☐ **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) Mechanics (AutWinSprSum)
- ☐ PHYS 121 (5) Mechanics (AutWinSprSum)

☐ **Physical World**  
2 courses, min. 6cr

**Choose any two:**

- ☐ PHYS 115 (4) / PHYS 122 (5) (AutWinSprSum)
- ☐ PHYS 116 (4) / PHYS 123 (5) (AutWinSprSum)
- ☐ OCEAN 210 (4) Integrative Oceans (Aut) *Pre-req: OCEAN 200 or FISH 250*
- ☐ OCEAN 285 (3) Fluid Mechanics & Waves (Aut) *Pre-req: PHYS 114 or 121; Q SCI 292 or MATH 125*
- ☐ OCEAN/ESS 230 (3 or 5) Rivers & Beaches (Aut)
- ☐ ENVIR 313/ESS 315 (5) Environmental Earth Science (Win) *Pre-req: ESS 101, 105, 210, 211, or 212*
- ☐ ATM S 211 (5) Climate Change (AutSpr)
- ☐ GEOG 205 (5) Our Global Environment: Physical & Human Dimensions (Win)
- ☐ \_\_\_\_\_ ( ) *other courses may apply by petition*

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## UW School of Aquatic and Fishery Sciences – Undergraduate Program

### ☐ AFS Degree Requirements – FISH Courses (min. 54 credits, 2.0 cumulative GPA)

#### ☐ Science Writing, 3cr

☐ FISH 290 (3) Scientific Writing & Communication (Win)

#### ☐ Natural History 2 courses, 10cr

☐ FISH 311 (5) Biology of Fishes (Aut)  
☐ FISH 310 (5) Biology of Shellfish (Spr)

#### ☐ Core Breadth 3 courses, 15cr

**NOTE:** 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 (Win)  
☐ 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 400 (5) Seminar in Freshwater Sustainability (Spr)  
☐ FISH 406 (5) Parasite Ecology (Aut) *Pre-req: BIOL 180*  
☐ FISH 423 (4) Aquatic Invasion Ecology (Aut – alternate years) *Pre-req: BIOL 180 or 462*  
☐ FISH 427 (5) Tropical Marine Biology (Win) *Pre-req: FISH 270 or BIOL 220; FISH 290; Q SCI 381*  
☐ FISH 428 (5) Stream & Watershed Restoration (Spr – alternate years) *Pre-req: FISH 312*  
☐ FISH 437 (4) Fisheries Oceanography (Aut)  
☐ FISH 441 (3) Integrative Environmental Physiology (Spr)  
☐ FISH 444 (5) Conservation Genetics (Win)  
☐ FISH 447 (5) Watershed Ecology & Mgmt (Spr) *Pre-req: BIOL 180, ESRM 201, or FISH 200*  
☐ FISH 450 (3) Salmonid Behavior & Life History (Win)  
☐ FISH 452 (3) Marine Geospatial Information Science (Win)  
☐ FISH 454 (5) Ecological Modeling (Aut)  
☐ FISH 458 (4) Advanced Ecological Modeling (Spr) *Rec: FISH 454, Q SCI 482, or FISH 552/553*  
☐ 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 – alternate years) *Pre-req: BIOL 180*  
☐ FISH 473 (3) Limnology (Aut) *Pre-req: BIOL 180*  
☐ FISH 474 (2) Limnology Lab (Aut) *Pre- or co-req: FISH 473*  
☐ FISH 478 (3) Topics in Sustainable Fisheries (Win – alternate years)  
☐ FISH 489\* (5) Peer Teaching (instructor permission)  
☐ FISH 497 (5) Ecological Research in Alaska (Sum – alternate years)  
☐ FISH 497 (3-5) Special Topics (Qtr varies; *not always applicable to requirement*)  
☐ FISH 498° (1-15) Internship/Experiential Learning (AutWinSprSum)  
☐ FISH 499° (1-15) Research (AutWinSprSum)  
☐ 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 applicable to AFS degree requirements

° Maximum 3 total combined credits in FISH 498 & FISH 499 applicable to AFS degree requirements

**Excluded:** FISH 453, 477, 496 and all capstone credits are not applicable to 400-level elec requirement; all FHL-prefix courses are not applicable to 400-level elec requirement except by petition

### ☐ AFS Degree Requirements – Capstone Research (7 credits)

#### ☐ Capstone Research 3 courses, 7cr

☐ FISH 493 (1) Capstone 1: Proposal (AutWinSpr) *Pre-req: FISH 290*  
☐ FISH 494 (3) Capstone 2: Research (AutWinSprSum) *Pre-req: FISH 493, Q SCI 381*  
☐ FISH 495 (3) Capstone 3: Research Synthesis (AutWinSprSum) *Pre-req: FISH 494*

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