2017 - 2018 BS Curriculum Yearly Planner

9/1/2017

Oregon State University Department of Fisheries and Wildlife

Writing I (WR 1), Speech, and Math 111 or higher must be completed within the first 45 OSU credit hours & Writing II (WR 2) within the first 90 OSU credit hours		Credits	Term and Campus			
COMMUNICATIONS		**12-13**	**F**	**W**	**S**	**U**
SPEECH *(select one)*		**3**				
COMM 111	Public Speaking*	3	C,E	C	C	C
COMM 114	Argument and Critical Discourse*	3	C	C	C	C
COMM 211	Communicating Online*	3	E	E	E	E
WRITING 1 (required)		**3**				
WR 121	English Composition*	3	C,E	C,E	C,E	C,E
WRITING 2 *(select one)*		**3**				
HC 199	Honors Writing* *(pr: Honors College approval)*	3	C	C	C	
WR 222	English Composition* *(pr: WR 121)*	3	C,E	C,E	C,E	C,E
WR 327 *recommended*	Technical Writing* *(pr: WR 121)*	3	C,E	C,E	C,E	C,E
WR 362	Science Writing* *(pr: WR 121)*	3	C	E	C, E	
WRITING INTENSIVE COURSE (WIC) *(select one) - Can double count with other requirements*		3-4				
	FW 435, FW 439, FW 454, FW 497					
FISHERIES AND WILDLIFE SCIENCES CORE *(all required)*		**69**	**F**	**W**	**S**	**U**
MTH 241	Calculus for Management and Social Science* *(pr: MTH 111 or math placement test)*	4	C,E	C,E	C,E	C,E
or MTH 245	Math for Management, Life, and Social Sciences* *(pr: MTH 111)*	4	C,E	C,E	C,E	C,E
or MTH 251	Differential Calculus* *(pr: MTH 112)*	4	C,E	C,E	C,E	C,E
CH 121	General Chemistry *(C- or better required)*	5	C,E	C,E	E	E
CH 122	General Chemistry* *(pr: CH 121 or CH 201 or CH 231) (C- or better required)*	5	E	C,E	C,E	E
CH 123	General Chemistry**(pr: CH 122 or (CH 232 & CH 262 or CH 272) or (CH 202 & CH 205))(Min. C-)*	5	E	E	C,E	C,E
or series: CH 231-233 lectures & CH 261-263 w/ Corvallis labs may be substituted for CH 121-123			*See schedule of classes*			
BI 211	Principles of Biology* *(C- or better required)*	4	C			C
BI 212	Principles of Biology**(pr or coreq: CH 121 or CH 201 or CH 221 or CH 231 & 261) (C- or better)*	4		C		C
BI 213	Principles of Biology**(pr or coreq: CH 121 or 201 or 221 or CH 231 & 261 or 271) (C- or better)*	4			C	C
Ecampus students may substitute the BI 204, 205, 206 series for BI 211, 212, 213 (read page 5 for details):						
BI 204	Introductory Biology* I *(C- or better required)*	4	E	E		
BI 205	Introductory Biology* II *(pr or coreq: Ch 121 or CH 201 or (CH 231 & 261) or CH 271)(Min. C-)*	4		E	E	
BI 206	Introductory Biology* III *(pr or coreq: CH 121 or 201 or 221 or CH 231 & 261 or 271) (Min. C-)*	4	E'18		E	
BI 370	Ecology *(pr: C- or better in BI 21X or 20X series)*	3	C,E	C,E	C,E	E
ST 351	Introduction to Statistical Methods	4	C,E	C,E	C,E	C,E
ST 352	Introduction to Statistical Methods *(pr: ST 351)*	4	C,E	C,E	C,E	C,E
FW 107	Orientation to Fisheries and Wildlife	1	C,E	E	E	
FW 209	Career Skills in Fisheries and Wildlife Sciences *(pr: FW 107)*	1	C,E	C,E	C,E	
FW 251	Principles of Fisheries & Wildlife Conservation *(rec: one course in intro. biology)*	3	E	C,E	E	E
FW 255	Field Sampling of Fish and Wildlife *(pr: WR 121)*	3	C,E	C,E	C,E	C,E
FW 289	Communication Skills for Fisheries and Wildlife Professionals	4	E	E	C	
FW 307	Specialization Development	1	C,E	E	C,E	
FW 320	Intro. to Population Dynamics *(pr: BI 370 or BI 371; rec: MTH 245 or higher)*	4	E	C,E	E	E
FW 321	Applied Community and Ecosystem Ecology *(pr: FW 320)*	3	E	E	C,E	
FW 410	Internship: Exploratory	1	C,E	C,E	C,E	C,E
FW 410	Internship: Intensive	3	C,E	C,E	C,E	C,E
FW 488	Problem Solving in Fisheries & Wildlife Science *(pr: FW 320 & FW 321)*	3	E	C,E		
VERTEBRATE BIOLOGY & SYSTEMATICS *(select three)*		**7-11**	**F**	**W**	**S**	**U**
VERTEBRATE BIOLOGY *(select one)*		**3-4**				
BI/FW 302	Biology & Conservation of Marine Mammals *(pr: 1 year biology)*	4	E		E	H
FW 311	Ornithology *(pr: 1 year biology)*	3	E	E	C,E	E
FW 315	Ichthyology *(pr: 1 year biology)*	3	C,E	E	E	E
FW 317	Mammalogy *(pr: 1 year biology)*	3	E	C,E	E	E
FW 331	Ecology of Marine and Estuarine Birds *(pr: 1 year biology)*	4				H
Z 473	Herpetology *(pr: C- or better required in 1 year biology)*	3				
SYSTEMATICS *(select one)*		**2-3**				
FW 312	Systematics of Birds *(pr: 1 year biology)*	2	C,E	E	E	E
FW 316	Systematics of Fish *(pr: BI 211, BI 212, BI 213 or BI 20X series)*	3	C	E	E	E
FW 318	Systematics of Mammals *(pr: 1 year biology)*	2		C,E	E	E
Z 474	Systematic Herpetology *(pr: 1 year biology)*	2	*currently not offered*			
Select one additional course from either Vertebrate Biology or Systematics		**2-4**	see above for schedule			

** = Bacc Core; ^ = WIC; pr = prerequisite; coreq = corequisite; rec = recommend;*
C = Corvallis Campus; E = Ecampus; H = Hatfield Marine Science Center

Classes subject to change at any time. Verify offerings online in the Schedule of Classes.

ADVANCED CORE *(select six)* *^WIC courses can double count*		Credits 18-26	Term and Campus			
GENETICS & EVOLUTION *(select one)*		**3-5**	**F**	**W**	**S**	**U**
ANS 378	Animal Genetics *(pr: ANS 121 & ST 351 rec. & C- or better in BI 211, BI 212, BI 213)*	4	C		E	
BI 311	Genetics *(pr: C- or better in BI 21X or 20X series)*	4	C,E	C,E	C,E	C
BI 345	Introduction to Evolution* (STS)	3	E	E		E
FW 370	Conservation Genetics *(pr: BI 211, BI 212, BI 213 or BI 20X series)*	4	E	E	E	
PBG 430	Plant Genetics *(pr: 1 year biology & 1 year chemistry)*	3		C		
BEHAVIOR & PHYSIOLOGY *(select one)*		**3-4**	**F**	**W**	**S**	**U**
ANS 311	Principles of Animal Nutrition *(pr: D- or better in BI 211 & BI 212)*	3	C			E
ANS 314	Animal Physiology *(pr: biology series = to BI 211-213 & junior standing or higher)*	4		C		E
FW 469	Methods in Physiology and Behavior of Marine Megafauna	3	E			
FW 471	Environmental Physiology of Fishes *(pr: BI 370 & FW 315)*	4		C		
FW 474	Early Life History of Fishes *(pr: FW 315) (Corvallis - F '18, F'20)*	4	C'18			
FW 475	Wildlife Behavior *(pr: 9 credits upper division biology)*	4	E	E	E	
FW 476	Fish Physiology *(pr: FW 315)*	4			E	
Z 350	Animal Behavior *(pr: C- or better in BI 21X or 20X series)*	3	E	C	E	
Z 423	Environmental Physiology *(pr: C- or better in BI 21X or 20X series)*	3	C	E		
Z 431, 432	Vertebrate Physiology *(pr: C- or better in BI 211, 212, 213 & D- or better in CH 332)*	4		C 431	C432	
HABITATS & ECOSYSTEMS *(select one)*		**3-5**	**F**	**W**	**S**	**U**
BI 351	Marine Ecology *(pr: C- or better in BI 21X or BI 20X series)*	3	E	C		
FES 341	Forest Ecology	3	C,E		E	
FES 342	Forest Types of the Northwest	3		E		
FES 440	Wildland Fire Ecology *(pr: jr. or sr. standing, course work in ecology & NR mgmt.)*	3		C,E	E	
FW 345	Global Change Biology* (CGI)	3			C	
FW 426	Coastal Ecology & Resource Management (can be used as a substitute for FW 488)	5	H,E			
FW/OC 434	Estuarine Ecology	4	C,H	E		
FW 435	Wildlife in Agricultural Ecosystems^ *(pr: BI 370 & FW 251)*	3	E	C,E	E	E
FW/FES 445	Ecological Restoration *(pr: BI 370 or instructor approval)*	4	E		C,E	E
FW/FES 452	Biodiversity Cons. of Managed Forests *(pr: FES 240 or FES 341 or BI 370)*	3	E		C	
FW 456	Limnology *(pr: senior standing)*	5		E	C,E	
FW 462	Ecosystem Services *(pr: BI 370)*	3			E	
FW 467	Antarctic Science and Conservation	4	E			
FW 479	Wetlands and Riparian Ecology *(pr: BI 370 or BI 371) (Corvallis - S'18, S'20)*	3	E	E	C'18,E	E
RNG 341	Rangeland Ecology and Management	3	C,E	C,E	C,E	E
SPECIES CONSERVATION & MANAGEMENT *(select one)*		**3-4**	**F**	**W**	**S**	**U**
FW 419	Nat. Hist. Whales & Whaling *(pr: background: vertebrate ecology & evolution)*	3	H	E		
FW/BI 421	Aquatic Biological Invasions *(pr: 1 year biology)*	4		E		H
FW 427	Principles of Wildlife Diseases *(pr: junior standing or approval)*	4			E	E
FW 451	Avian Conservation and Mgmt. *(pr: FW 311) (Corvallis - F'17, F'19)*	3	C'17, E	E		
FW 454	Fishery Biology^ *(pr: FW 315 & FW 320)*	4	C	E		
FW 458	Mammal Conservation Mgmt. *(pr: 9 credits of upper-division biological sciences)*	4	E	E	C	
FW/BI 464	Marine Conservation Biology *(pr: BI 370 & seniors & post baccs only)*	3	C,H			
FW 465	Marine Fisheries	4	C,H			
FW 473	Fish Ecology *(pr: BI 370 & FW 315)*	4		C	E	
FW 481	Wildlife Ecology *(pr: BI 370)*	3	C		E	E
FW/MB 491	Fish Diseases in Conservation Biology and Aquaculture (Sp'18, Sp'20)	3			C '18	
BOTANY *(select one) - Students may sub FW 434 or FW 479 for this category with advisor approval*		**3-4**	**F**	**W**	**S**	**U**
BOT 313	Plant Structure *(pr: BI 213)*	4		C		
BOT 321	Plant Systematics *(pr: BI 213)*	4			C	
BOT 323	Flowering Plants of the World^ *(pr: 1 year college biology)(W'17,'19)*	3		C'17		
BOT 331	Plant Physiology *(pr: BI 213 & CH 123 or CH 233 & 263)*	4		C,E	E	
BOT 341	Plant Ecology *(pr: BI 213, BOT 321 recommended)*	4	E		C, E	
BOT 416	Aquatic Botany *(pr: BI 213)*	4	C			
BOT 440	Field Methods in Plant Ecology *(pr: 1 course in ecology & statistics)*	4			E	E
BOT 442	Plant Population Ecology *(pr: BOT 341 or equivalent)*	3				
BOT 488	Environmental Physiology of Plants *(pr: 1 course in plant physiology or ecology)*	3		C		
RNG 353	Wildland Plant Identification	4	C		E	E
Select one additional course from the sections above in the FW Advanced Core list		***3-5***	***see above for schedule***			

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C = Corvallis Campus; E = Ecampus; H = Hatfield Marine Science Center
(CGI) = Contemporary Global Issues; (STS) = Science Technology & Society

PHYSICAL AND EARTH SCIENCES *(select three)* ***(CGI) & (STS) courses can double count with Baccalaureate Core.*** ***(CGI) & (STS) cannot be from the same Department.***		**Credits**	**Term and Campus**			
Select three courses from the categories below: ***no more than two courses from any single category; cannot double count with FW Core***		**9-14**	**F**	**W**	**S**	**U**
PHYSICS, MATH, & CHEMISTRY		**3-10**				
CH 130	General Chemistry of Living Systems	4		E	C,E	E
CH 331	Organic Chemistry *(pr: CH 123 or 223 or (233 & 263) or 273)*	4	C,E	C,E		C
CH 332	Organic Chemistry *(pr: CH 331 C- or better)*	4		C,E	C, E	C
CH 390	Environmental Chemistry *(pr: CH 331 or 334, D- or better)*	3		C,E	C,E	
MTH 241	Calculus for Management and Social Science* *(pr: MTH 111 or placement test)*	4	C,E	C,E	C,E	C,E
MTH 251	Differential Calculus* *(pr: MTH 112 or placement test)*	4	C,E	C,E	C,E	C,E
MTH 252	Integral Calculus *(pr: MTH 251)*	4	C,E	C,E	C,E	C,E
OC 450	Chemical Oceanography *(pr: one year of college-level general chemistry)*	3		C		
PH 201	General Physics* *(pr: MTH 111 & 112)*	5	C			C
PH 202	General Physics* *(pr: MTH 111 & 112 & PH 201)*	5		C		C
PH 205	Solar System Astronomy*	4	C,E	E	E	
PH 206	Stars and Stellar Evolution*	4	E		E	E
PH 207	Galaxies, Quasars, and Cosmology*	4	E	C,E	E	
PH 211	General Physics with Calculus* *(pr: MTH 251)*	4	C	C	C	C
PH 212	General Physics with Calculus* *(pr: PH 211 D- and MTH 251)*	4	C	C	C	C
PH 331	Sound, Hearing, and Music* (STS) *(pr: upper division standing, 1 yr science)*	3		C		
PH 332	Light, Vision, and Color* (STS) *(pr: upper division standing, 1 yr science)*	3	C			
EARTH SCIENCES		**3-8**				
ATS 201	Climate Science*	4	C,E	C,E	C,E	E
GEO 201	Physical Geology*	4	C	C		
GEO 202	Earth System Science*	4		C		
GEO 203	Evolution of Planet Earth*	4			C	
GEO 221	Environmental Geology*	4	E	E	C	
GEO 305	Living with Active Cascade Volcanoes* (STS)	3	E		C,E	C
GEO 306	Minerals, Energy, Water, and the Environment* (STS)	3	E	E	C	E
GEO 307	National Park Geology and Preservation* (STS)	3	C		E	E
GEO 308	Global Change and Earth Sciences (CGI)	3	E	C,E	E	C,E
OC 201	Oceanography*	4	C	C	E	
OC 332	Coastal Oceanography	3		C		
SOIL 205	Soil Science* & SOIL 206 Lab or FOR 206 Lab *(pr or coreq: SOIL 206 or FOR 206)*	4	C	C	C	C
CSS 205	Soil Science* (Ecampus version of SOIL 205)	4	E	E	E	E
Most 400 level geology courses are appropriate but may have 200-300 level prerequisites		3-4	see schedule of classes			

HUMAN DIMENSIONS (select three)		**Credits**	**Term and Campus**			
Select one course from each category. (CGI), (STS), (WC), (SPI) & (DPD) courses can double count as Baccalaureate Core. (CGI) & (STS) courses cannot be from the same Department.		**9-11**	**F**	**W**	**S**	**U**
DIFFERENCE, POWER AND DISCRIMINATION *(select one)*		**3**				
AG 301	Ecosystem Science of Pacific NW Indians* (DPD)	3	C,E	C,E		E
FW 340	Multicultural Perspectives in Natural Resources* (DPD)	3	E	E	C, E	E
GEO 309	Environmental Justice* (DPD) *(pr: C- or better in WR 121 or WR 121H & soph. standing)*	3		C	E	
ENVIRONMENTAL LAW, POLICY AND ECONONMICS *(select one)*		**3-4**				
AEC 250	Intro. to Environmental Economics & Policy* (SPI) *(pr: MTH 111 or equiv. rec.)*	3	E	C,E	C,E	C,E
AEC 253	Environmental Law, Policy, and Economics* (WC)	4		C,E		E
AEC 351	Natural Res Econ & Policy*(CGI) *(pr: D- in AEC 250 or AREC 250 or ECON 201)*	3	E	C	C,E	E
AEC/ECON 352	Environmental Economics & Policy* (CGI) *(pr: D- in AEC 250 or AREC 250 or ECON 201)*	3	C,E	E	C,E	
AEC 432	Environmental Law *(pr: junior standing)*	4	C		E	
FOR 462	Natural Resource Policy & Law	3	C			
FW 350	Endangered Species, Society, Sustainability* (STS) *(pr: FW 251)*	3	C,E	E	E	E
FW 415	Fisheries & Wildlife Law & Policy (*pr: PS 201 or other intro political sci. course)*	3		E		
FW 422	Introduction to Ocean Law	3	E			
PS 475	Environmental Politics & Policy	4	C,E	E	E	E
PS 477	International Environmental Politics and Policy	4	E	E	E	E

continued on next page….

(CGI) = Contemporary Global Issues; (STS) = Science Technology & Society; (DPD) = Difference, Power, and Discrimination

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HUMAN DIMENSIONS (*continued)*			**F**	**W**	**S**	**U**
OTHER (*select one)*		**3-4**				
ANTH 477	Ecological Anthropology	4	C,E			
ANTH 481	Natural Resources & Community Values* (STS) *(pr: 3 credits social science)*	3				
BOT 322	Economic and Ethnobotany: Role of Plants in Human Culture	3		E	E	
FES 354	Communities, Natural Areas, and Sustainable Tourism	3				
FES 355	Management for Multiple Resource Values	3	E		E	
FES 360	Collaboration and Conflict Management	3				
FES 422	Research Methods in Social Science *(pr: ST 351 (D-))*	4		C		
FES 485	Consensus & Natural Resources* (STS)	3	C,E	C,E	C,E	
FES 493	Environmental Interpretation	4	E		E	
FW 324	Food from the Sea* (CGI)	3			C	
FW 325	Global Crises in Resource Ecology* (CGI)	3	E	E	E	E
FW 439	Human Dimensions of F&W Mgmt.^ *(pr: FW 251 & introductory statistics)*	3	E			
FW 360	Origins of F & W Management - Evo., Gen., & Ecol.* (STS) *(pr: 2 terms @ OSU)*	3	E	E	E	
GEOG 340	Introduction to Water Science and Policy* (STS)	3	C,E	E	C	
HST 481	Environmental History of the US* (STS) *(pr: upper div. stand. & HST 201/2/3 rec.)*	4	E	E,C	E	E
PHL 440	Environ. Ethics *(pr: PHL 205, PHL 342, PHL 365 or 6 cr. PHL & soph. standing)*	3				E
PHL/REL 443	World Views & Environmental Values* (CGI) *(pr: soph. stand; 1 intro sci. course)*	3	C,E	C,E	C,E	C,E
PS 461	Environmental Political Theory	4				
PS 476	Science & Politics* (STS)	4		E	C	E
SOC 480	Environmental Sociology* (CGI) *(pr: SOC 204)*	4	C			E
SOC 481	Society & Natural Resources* (STS) *(pr: SOC 204)*	4	E	E	C,E	E

SPECIALIZATION *(courses selected when you take FW 307)*	**24**	

ELECTIVES *(for first degree students)*	**0-20**	

Additional FW courses that could be used to count towards the Specialization or Electives sections:

FW 112 The Science of Fly Fishing for Trout	FW 407 Seminar
FW 113 Intro. to Marine Life in the Sea-Marine Birds & Mammals	FW 431 Dynamics of Marine Biological Resources
FW 301 Field Techniques for Marine Mammal Conservation	FW 470 Ecology and History: Landscapes of the Columbia Basin
FW 303 Survey of GIS in Natural Resources	FW 472 Advanced Ichthyology
FW 323 Management Principles of Pacific Salmon in the NW	FW 493 Field Methods for Marine Research
FW 326 Integrated Watershed Management	FW 496 Fish Diseases in Conservation Biology and Aquaculture Lab
FW 328 Wildlife Capture and Immobilization	FW 497 Aquaculture^
FW 341 Fish and Wildlife Law Enforcement	FW 498 Aquaculture Lab
FW 356 Citizen Science	FW 499 Special Topics
FW 366 Environmental Contaminants in Fish and Wildlife	

BACCALAUREATE CORE ***With the exception of Speech and WIC, this section is only required for students earning their first degree.***		**49**	
HHS 231	LIFETIME FITNESS LECTURE	2	*See baccalaureate core schedule of classes.*
HHS 241 or PAC	LIFETIME FITNESS LAB	1	
Met with FW Core	MATHEMATICS (MTH 111 or higher)	4	
Met with FW Core	WR 1, WR 2, & SPEECH	9	
Perspective Courses:	CULTURAL DIVERSITY (CD)	3	
no more than two courses from one Department	LITERATURE & THE ARTS (LA)	3	
	SOCIAL PROCESSES & INSTITUTIONS (SPI)	3	
	WESTERN CULTURE (WC)	3	
Met with FW Core	PHYSICAL SCIENCE	4	
Met with FW Core	BIOLOGICAL SCIENCE	4	
Met with FW Core	ADDITIONAL PHYSICAL OR BIOLOGICAL SCIENCE	4	
Met with FW Core	DIFFERENCE, POWER, & DISCRIMINATION (DPD)	3	
Synthesis Courses: can't be from the same Dept.	SCIENCE, TECHNOLOGY, & SOCIETY (STS)	3	
	CONTEMPORARY GLOBAL ISSUES (CGI)	3	
WR1, SPEECH, & Bacc Core Math must be completed within the first 45 OSU credit hours. WR2 within the first 90 OSU credit hours.			

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BIOLOGY SERIES

Please note that the BI 204, 205, 206 series is only available to Ecampus students and cannot be mixed with the BI 211-213 series. It does not serve as a prerequisite to the following courses in the Fisheries and Wildlife curriculum: Z 422, Z 431, and Z 432. Also, this series may not be appropriate for careers in Veterinary, Dental, or Medical Sciences or any degrees offered through the OSU College of Science, please consult with your advisor before enrolling in the series.

PROFESSIONAL DEVELOPMENT SERIES

FW 107 ORIENTATION TO FISHERIES AND WILDLIFE SCIENCES (1 credit)
FW 107 Orientation to FW Sciences introduces students to a range of academic and career pathways in fisheries and wildlife sciences.

FW 209 CAREER SKILLS IN FISHERIES AND WILDLIFE SCIENCES (1 credit)
FW209 - Career Skills in Fisheries and Wildlife Sciences offers the opportunity for students to gain a foundation for life-long career development by understanding the job market in fisheries and wildlife, learning where and how to search for internships and jobs, how to evaluate and choose potential career- building opportunities, how to build a resume, how to write effective cover letters, and gain the skills necessary for networking and interviewing. This course is intended for students that have completed FW107, have completed the general chemistry series and have at least sophomore standing. It is recommended that FW 209 be done prior to FW 410 Internships, but exceptions may be possible.

FW 307 SPECIALIZATION DEVELOPMENT (1 credit)
FW307 Specialization Development helps students develop an additional set of classes called the ”Specialization” that are focused on the student’s career interests, along with advanced career planning, such as considering graduate school. Students should consult with their advisor before taking this class. Students generally take this course their junior year or after completing the chemistry and biology sequences. Students work with the course instructor and their advisor to finalize the courses within their Specialization.

SPECIALIZATION COURSE REQUIREMENTS (24 credit minimum)

The Specialization, intended to supplement the Advanced Fisheries and Wildlife Core, must contain a minimum of 24 credits. At least 20 credits will be from upper division (300 and 400 level) courses; no more than four lower division credits are allowed. A maximum of two courses may be completed prior to approval of the Specialization, additional upper division credits may be allowed through petition to advisor. With the exception of Writing Intensive Courses (WIC), double counting (when credit is given twice for a course), is not permitted between the Specialization and other University or Departmental course work. For students completing their first BS degree, 12 credit hours applied towards their minor may also be applied towards the Specialization (requires approval by Advisor in Minor Department and FW Advisor). A maximum of 12 credit hours, in any combination, of FW 401 Research and FW 410 International Internship can be used towards the specialization. Post Baccalaureate students who are completing their second degree may use a maximum of 12 credits from their first degree towards their specialization (approved by FW Advisor).

FW 410 INTERNSHIPS (4 credits minimum)
There are two types of internships: Exploratory (1-2 credits) and Intensive (3-6) credits. Students are required to complete a minimum of two internships or other approved alternative experiences (one of each type) for their degree. Students are encouraged to start gaining professional experience by volunteering or interning with a natural resource agency as early as possible and no later than their junior year. Both internships should be completed at least two terms prior to graduation and need not be sequential.

The **Exploratory Internship** helps students explore career directions. It involves a professional experience with at least 40 hours of learning time off campus in a natural resource setting. Most students attend a professional conference, such as the Annual Conference of The Wildlife Society or American Fisheries Society, or assist a professional biologist with field work.

The **Intensive Internship** helps students experience work as a professional and gain technical skills that complement the academic/conceptual knowledge learned in classes. It involves a professional experience in an off-campus natural resource organization for a long enough time period and with enough depth and breadth to gain competence in one or more facets of a position or organization. This experience often leads to the student performing professional duties independent of supervision.

Students need to register for the FW 410 internship class for the term in which their internship occurs (even if it is summer term). Before registering, students must have their internship approved by the FW Internship Coordinator. The Internship Coordinator is responsible for guiding students, providing general oversight, and final evaluation of the internship/experience requirement. Before beginning the internship, a formal letter of understanding between the student, department, and mentor in the natural resource profession must be submitted by the student.

At the conclusion of the experience the student will complete the course by meeting the requirements listed on the FW 410 class syllabus, including submission of a resume and brief report describing the activities and what was learned. Mentors may provide a brief evaluation of the student's education.

For students that consider themselves non-traditional students, most often Ecampus students that are concerned with fitting the internships into their schedule, read this supplemental information on our website.

For more information, contact the Internship Coordinator:
Danielle Jarkowsky, Danielle.Jarkowsky@oregonstate.edu, Nash 104E

CAPSTONE COURSE FW 488 PROBLEM SOLVING IN FISHERIES & WILDLIFE SCIENCE (3 credits)

Students participate in the capstone experience through FW 488 Problem Solving in Fisheries & Wildlife Science. This course is taken after a student has reached at least senior standing and is as close to the end of their degree requirements as possible. Students are required to complete FW 320 & FW 321 and are recommended to have taken one or more 400 level FW classes before they begin the capstone course. The capstone course is designed to introduce students to the synthesis of scientific information on species, habitats and ecosystems and the use of such data in shaping fisheries and wildlife conservation, management, and policy. It includes a group problem solving project and case studies.

This course focuses on three activities: 1) a review of several case histories on current, "real world" conservation and management problems presented by faculty or agency biologists who have worked on each problem; 2) discussion about the process used to logically address complex problems in fish and wildlife conservation, and; 3) independent work by students in small groups on a selected topic of their choice. The group project provides an opportunity for students to apply what they have learned in this and previous courses to address a conservation or management issue of interest. Projects include data analysis and/or synthesis, literature review, and/or evaluation of the social and economic systems involved in the controversy or management problem.