



AQUACULTURE Specialty

Effective Fall 2011

STUDENT NAME:		ADVISOR NAME:	
REQUIREMENTS for GRADUATION: To earn a Bachelor of Science Degree in Agriculture with a specialization in AQUACULTURE, a student must complete a minimum of 123 semester hours with a cumulative GPA of 2.0. Meeting all graduation requirements is the responsibility of the student.			
COURSE NUMBER	COURSE TITLE	CREDIT HOURS	SEM/YR COMPLETED
GENERAL EDUCATION REQUIREMENTS			18 hours
(See http://hilo.hawaii.edu/academics/gened/ for a listing of qualified courses)			
	ENGLISH COMPOSITION (<i>Prerequisite: Recommendation in Writing Placement Exam</i>) One of the following: ENG 100 or 100T or 100H or ESL 100 or 100T		3
	LANGUAGE ARTS		3
	QUANTITATIVE REASONING <i>MATH 121 under Supplemental Requirements also applicable here.</i>	TOTAL of 6 hours	3
			3
	WORLD CULTURES	TOTAL of 6 hours	3
			3
AREA GENERAL EDUCATION REQUIREMENTS			19 hours
(See http://hilo.hawaii.edu/academics/gened/ for a listing of qualified courses)			
	HUMANITIES ELECTIVES Two courses in <u>different</u> disciplines	TOTAL of 6 hours	3
			3
	SOCIAL SCIENCE ELECTIVES Two courses in <u>different</u> disciplines	TOTAL of 6 hours	3
			3
	NATURAL SCIENCE ELECTIVES Two courses in <u>different</u> disciplines including 1 credit hour of laboratory <i>MARE 172 taken under Supplemental Requirements also applicable for 3 credits here.</i> <i>AQUA 262 or HORT 262 under Agriscience or CHEM 141 taken under Supplemental Requirements also applicable for 3 credits here from FALL 2012.</i>	TOTAL of 7 hours	3
	<i>CHEM 114/114L or 124/124L or 125/125L or MARE 171-171L or 201/201L taken under Supplemental Requirements also applicable for 4 credits here.</i>		4
INTEGRATIVE GENERAL EDUCATION REQUIREMENTS			9- 15 hours
(See http://hilo.hawaii.edu/academics/gened/ for a listing of qualified courses)			
	WRITING INTENSIVE REQUIREMENT Three courses designated "WI", one of which must be numbered 300 or above <i>Transfer students, after an official transfer credit evaluation, may be required to take less than 3 courses.</i> <i>AQUA 353 & 353L & HORT 262 taken under Agriscience Requirements also applicable here.</i>	TOTAL of 3-9 hours	1-3
			1-3
			1-3
	HAWAII PAN-PACIFIC REQUIREMENT <i>AQUA 262 taken under Agriscience Requirements also applicable here from FALL 2012.</i>		3
	GLOBAL AND COMMUNITY CITIZENSHIP <i>AQUA 262 or HORT 262 taken under Agriscience Requirements also applicable here from FALL 2012.</i>		3

COURSE NUMBER	COURSE TITLE	CREDIT HOURS
Requirements for Specialty		Including GE Courses, 123 hours
AGRISCIENCE REQUIREMENTS		46 to 47 hours
AG 200	Agro-Environmental Science and Communication	3
AG 291	Directed Work Experience Program	3
AG 375 ANSC 445 BIOL 466	or or Introduction to Genetic Analysis Animal Breeding and Genetics (<i>Prerequisite: ANSC 141. Rec: MATH 121 or equivalent</i>) Genetics (<i>Prerequisite: BIOL 410</i>)	3
AG 496	Senior Seminar	1
AGBU 320 AGEC 330	or Agribusiness Management Farm Management	3
AGEN 400	Aquaculture Engineering (<i>Prerequisite: AQUA 262</i>)	4
ANSC 141	Introduction to Animal Science	3
ANSC 244	Fundamentals of Animal Nutrition (<i>Prerequisite: ANSC 141; CHEM 114/141 or 124-125 or 124/141</i>)	3
AQUA 262 +	Introduction to Aquaculture	3
AQUA 352-352L	Aquaculture of Fishes and Lab (<i>Prerequisite: AQUA 262 or aquatic ecology</i>)	4
AQUA 353*-353L*	Invertebrate & Algae Culture and Lab (<i>Prerequisite: AQUA 262 or aquatic ecology</i>)	4
AQUA 425-425L or NRES 425	or Water Quality and Aquatic Productivity and Lab (<i>Prerequisite: CHEM 114 or 124</i>) Marine Biogeochemistry (<i>Prerequisite: CHEM 114 or CHEM 124</i>)	4/3
AQUA 466	Fisheries Science (<i>Prerequisite: background in fish biology and aquatic ecology</i>)	3
HORT 262 +	Principles of Horticulture	3
HORT 263	Hydroponics (<i>Prerequisite: HORT 262</i>)	3
SUPPLEMENTAL REQUIREMENTS		36 to 37 hours
BIOL 281 MARE 265	or General Ecology (<i>Prerequisite: BIOL 175 or 176. Rec: high school algebra or equivalent</i>) Marine Ecology and Evolution (<i>Prerequisite: MARE 171/171L, 172 and 201</i>)	3
BIOL 280 MARE 250 MATH 121*	or or Biostatistics Statistical Applications in Marine Science (<i>Prerequisite: MARE/BIOL 171 or MARE 201</i>) Introduction to Statistics and Probability (<i>Prerequisite: Recommendation in Math Placement Test</i>)	3
CHEM 114-114L* CHEM 141 *	or Introductory Chemistry and Lab (<i>Prerequisite: Placement by exams</i>) Survey of Organic Chemistry and Biochemistry	7/8
CHEM 124-124L* CHEM 125-125L*	or General Chemistry I, II and Labs (<i>Prerequisite: high school chemistry or CHEM 114 and high school algebra or MATH 104 and placement by exam</i>)	
CHEM 124-124L* CHEM 141 *	or General Chemistry I and Lab (<i>Prerequisite: see above</i>) Survey of Organic Chemistry and Biochemistry	
MARE 171-171L*	Marine Biology-Diversity and Lab	4
MARE 172*	Marine Biology - Cellular Processes (<i>Prerequisite: high school Biology; or BIOL 101 and high school chemistry; or CHEM 114 recommended</i>)	3
MARE 201-201L*	Oceanography and Lab (<i>Prerequisite: Two high school or college science courses recommended</i>)	4
MARE 371-371L or MARE 372-372L or MARE 484-484L	Select TWO course-labs: TOTAL of 8 hours	4
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PHYS 106-170L	College Physics I & Lab (<i>Prerequisite: 3 years of high school math and placement exam</i>)	4
ELECTIVES		12 to 14 hours

*Can be used for Basic General Education OR Area General Education OR Integrative Requirements.
+Can be used for Basic General Education OR Area General Education AND Integrative Requirements.