

✓10-day RECEIVED DEC 13

99-UCCh. (sig)

FORMAT 2

Submit originals (including syllabus) and one copy and electronic copy to the **Faculty Senate Office**
See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL

Attach a syllabus, except if dropping a course.

SUBMITTED BY:			
Department	Fisheries	College/ School	SFOS

Prepared by	Megan McPhee	Phone	796-5464
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Email Contact	mvmcphee@alaska.edu	Faculty Contact	Megan McPhee
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1. COURSE IDENTIFICATION: As the course now exists.					
Dept	FISH	Course #	F633	No. of Credits	3

COURSE TITLE	Pacific salmon life histories
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2. ACTION DESIRED: Changes to be made to the existing course.			
Change Course	<input checked="" type="checkbox"/>	If Change, indicate below what change.	Drop Course

NUMBER		TITLE		DESCRIPTION	<input checked="" type="checkbox"/>
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PREREQUISITES		FREQUENCY OF OFFERING	
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CREDITS (including credit distribution)		COURSE CLASSIFICATION	
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CROSS-LISTED		Dept.		(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)
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STACKED (400/600) Include syllabi.	<input checked="" type="checkbox"/>	Dept.	FISH	Course #	433
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OTHER (please specify)	
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3. COURSE FORMAT

NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council and the appropriate Faculty Senate curriculum committee. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

COURSE FORMAT:
(check all that apply)

<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>	5	<input checked="" type="checkbox"/> X	6 weeks to full semester
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OTHER FORMAT (specify all that apply)

Mode of delivery (specify lecture, field trips, labs, etc)

lecture, distance

4. COURSE CLASSIFICATIONS: (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)

H = Humanities

☐

S = Social Sciences

☐

Will this course be used to fulfill a requirement for the baccalaureate core?

YES

NO

x

IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive,
Format 6 also submitted

☐

W = Writing Intensive, Format 7
submitted

☐

Natural Science, Format 8
submitted

☐

5. COURSE REPEATABILITY:

Is this course repeatable for credit?

YES

☐

NO

x

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit?

TIMES

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?

CREDITS

6. CURRENT CATALOG DESCRIPTION AS IT APPEARS IN THE CATALOG: including dept., number, title and credits

FISH F633 Pacific Salmon Life Histories

3 Credits

Offered Fall Even-numbered Years

Life history patterns of species and stocks of Pacific salmon compared. Evolutionary models to explain the variety of patterns. Effects of human activities on species and stock; conservation of salmon resources. Discussion and analysis of readings. Prerequisites: FISH F427. (3+0)

7. COMPLETE CATALOG DESCRIPTION AS IT WILL APPEAR WITH THESE CHANGES: (Underline new wording strike through old wording and use complete catalog format including dept., number, title, credits and cross-listed and stacked.) PLEASE SUBMIT NEW COURSE SYLLABUS. For stacked courses the syllabus must clearly indicate differences in required work and evaluation for students at different levels.

FISH F433 Pacific Salmon Life Histories

3 Credits

Offered Fall Even-numbered years

This course provides an introduction to the life histories of Pacific salmon (*Oncorhynchus*). We will explore variation in life history traits within and among species, as well as within and among populations, at each stage of the salmon life cycle. Life histories will be understood in evolutionary and ecological context. We will also discuss management and conservation of Pacific salmonid species throughout their range, but with focus on Alaska. Prerequisites: FISH/BIOL F427. (3+0)

FISH 633 Pacific Salmon Life Histories

3 Credits

Offered Fall Even-numbered years

This course provides an introduction to the life histories of Pacific salmon (*Oncorhynchus*). We will explore variation in life history traits within and among species, as well as within and among populations, at each stage of the salmon life cycle. Life histories will be understood in evolutionary and ecological context. We will also discuss management and conservation of Pacific salmonid species throughout their range, but with focus on Alaska. Prerequisites: FISH/BIOL ~~F427~~ or permission of instructor. (3+0)

8. IS THIS COURSE CURRENTLY CROSS-LISTED?

YES/NO

☒ NO

If Yes, DEPT

NUMBER

(Requires written notification of each department and dean involved. Attach a copy of written notification.)

9. GRADING SYSTEM: Specify only one

LETTER:

☒ X

PASS/FAIL:

☐

10. ESTIMATED IMPACT

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

Stacking this course is not expected to significantly impact existing budget, facilities/space or faculty resources as the course is already being offered. The only change is that enrollment would increase as more undergraduates would consider taking the course.

11. LIBRARY COLLECTIONS

Have you contacted the library collection development officer (kljensen@alaska.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

No

x

Yes

No, because the course is already on the books and the library already adequately meets the resource requirements of the course. There are no changes to the readings accompanying the request for stacking.

12. IMPACTS ON PROGRAMS/DEPTS:

What programs/departments will be affected by this proposed action?
Include information on the Programs/Departments contacted (e.g., email, memo)

This change will benefit the undergraduate program in Fisheries by adding one more course that could be used to fulfill the elective in Fisheries requirement.

13. POSITIVE AND NEGATIVE IMPACTS

Please specify **positive and negative** impacts on other courses, programs and departments resulting from the proposed action.

Positive impacts - undergraduate students in Fisheries are required to take 10 credits of upper division electives. Our current course offerings beyond those specifically required for a Fisheries B.S. or B. A. are fairly limited; this will give students another option for an elective. It is also a topic that many undergraduates in our Fisheries program are likely to be interested in.

No negative impacts are expected.

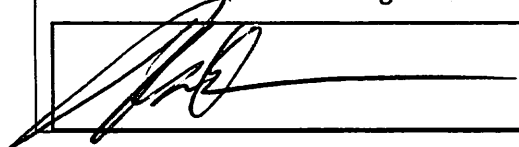
JUSTIFICATION FOR ACTION REQUESTED

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. If you ask for a change in # of credits, explain why; are you increasing the amount of material covered in the class? If you drop a prerequisite, is it because the material is covered elsewhere? If course is changing to stacked (400/600), explain higher level of effort and performance required on part of students earning graduate credit. Use as much space as needed to fully justify the proposed change and explain what has been done to ensure that the quality of the course is not compromised as a result.

The reason for requesting stacking the course is to improve the undergraduate course offerings in Fisheries. Undergraduate students in Fisheries are required to take 10 credits of upper division electives. Our current course offerings beyond those specifically required for a Fisheries B.S. or B. A. are fairly limited; this will give students another option for an elective. It is also a topic that many undergraduates in our Fisheries program are likely to be interested in.


Graduate students enrolled in FISH F633 will have to exert a higher level of work. Students enrolled in FISH F633 will have to write a review paper (submitting both a draft and final version) and to provide peer-review of the drafts submitted by other students. They are also required to lead discussion during class. Undergraduate students enrolled in FISH F433 are not subject to these requirements.

APPROVALS: (Additional signature blocks may be added as necessary.)

	Date	12/8/2011
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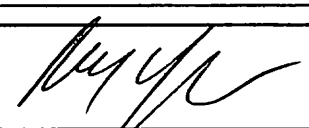
Signature, Chair, Program/Department
of:

Fisheries

	Date	12/8/2011
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Signature, Chair, College/School Curriculum Council
for:

SPOS

	Date	12/8/11
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Signature, Dean, College/School of: <i>Assoc</i>	<i>STW</i>
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	Date	
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Signature of Provost (if applicable)	
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Offerings above the level of approved programs must be approved in advance by the Provost.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE.		
	Date	

Signature, Chair, UAF Faculty Senate Curriculum Review Committee	
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ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)		
	Date	

Signature, Chair, Program/Department of:	
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	Date	
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Signature, Chair, College/School Curriculum Council for:	
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	Date	
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Signature, Dean, College/School of:	
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Note: The guidelines are online:

<http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/>

The Faculty Senate curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items are missing or unclear, the proposed course (or changes to it) may be denied.

Syllabus CHECKLIST for all UAF courses

During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout the semester, this document will contain the following information (as applicable to the discipline):

1. Course information:

 θ Title, θ number, θ credits, θ prerequisites, θ location, θ meeting time
 (make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) information:

 θ Name, θ office location, θ office hours, θ telephone, θ email address.

3. Course readings/materials:

 θ Course textbook title, θ author, θ edition/publisher.
 θ Supplementary readings (indicate whether θ required or θ recommended) and
 θ any supplies required.

4. Course description:

 θ Content of the course and how it fits into the broader curriculum;
 θ Expected proficiencies required to undertake the course, if applicable.
 θ Inclusion of catalog description is *strongly* recommended, and
 θ Description in syllabus must be consistent with catalog course description.

5. θ Course Goals (general), and (see #6)

6. θ Student Learning Outcomes (more specific)

7. Instructional methods:

 θ Describe the teaching techniques (eg: lecture, case study, small group discussion, private instruction, studio instruction, values clarification, games, journal writing, use of Blackboard, audio/video conferencing, etc.).

8. Course calendar:

 θ A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has thought this through and will not be making it up on the fly (e.g. it is not adequate to say "lab". Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications during the semester.

9. Course policies:

 θ Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

10. Evaluation:

 θ Specify how students will be evaluated, θ what factors will be included, θ their relative value, and θ how they will be tabulated into grades (on a curve, absolute scores, etc.) θ Publicize UAF regulations with regard to the grades of "C" and below as applicable to this course. (This is not required in the syllabus, but it's a convenient way to publicize this if applicable.) Faculty Senate Meeting #171:

<http://www.uaf.edu/uafgov/faculty-senate/meetings/2010-2011-meetings/#171>

11. Support Services:

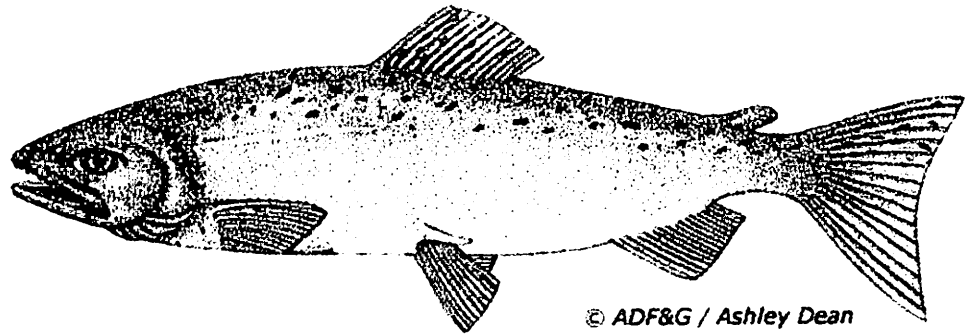
 θ Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services:

The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. θ State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655) to provide reasonable accommodation to students with disabilities.

FISH F433: Pacific Salmon Life Histories

3 credits



- Meeting:** Tuesdays & Thursdays 3:40-5:10p
F633 F01 – Fairbanks – O'Neill 214
F633 FJ1 – Juneau – Lena 101
- Instructor:** Dr. Megan McPhee
309 Lena (Juneau)
(907) 796-5464
mvmcphee@alaska.edu
- Office Hours:** Tuesday 2:00-3:00 p
Thursday 2:00-3:00 p
Or by appointment
- Prerequisites:** FISH/BIOL F427 (Ichthyology)
- Readings:** Thomas P. Quinn (2005) The Behavior and Ecology of Pacific
(required) Salmon & Trout. American Fisheries Society, Bethesda, Maryland.
378 p. ISBN 0-295-98457-0
- Journal articles (pdf format) - available on BlackBoard
- Course Description:** This course provides an introduction to the life histories of Pacific salmon (*Oncorhynchus*). We will explore variation in life history traits within and among species, as well as within and among populations, at each stage of the salmon life cycle. Life histories will be understood in evolutionary and ecological context. We will also discuss management and conservation of Pacific salmonid species throughout their range, but with focus on Alaska.

<u>Course Evaluation:</u>	1) Mid-term exam	(30 pts.)
	2) Discussion participation	(10 pts.)
	3) Final Project	(30 pts.)
	4) Final exam	<u>(30 pts.)</u>
	TOTAL	100 pts.
Grading Scale:		A: 91-100 pts.
(no curve)		B: 81-90 pts.
		C: 71-80 pts.*
		D: 61-70 pts.
		F: 0 - 60 pts.

*a minimum grade of C (2.0) is required for all major and prerequisite courses

Discussion:

We will reserve the last ~30 minutes of course time to discuss 1-2 papers from the primary literature (assigned ahead of time; provided on Blackboard). You will be graded on your participation in this discussion. This is meant to be a *low-stress* way to familiarize you with the salmon literature and to get you thinking critically about questions and methodology in salmon biology. A good participant raises relevant points and contributes to each discussion, but also allows other students to contribute and gives other's points due consideration.

Final Project:

The final project will consist of developing and giving 15-minutes oral presentation on a topic related to Pacific salmon ecology, evolution, or management. A brief description of your presentation topic will be due on **4 Oct** and the presentation will be delivered on **6 Dec**. I will work with you to determine the best AV format with which to deliver your presentation (PowerPoint, pdf, Keynote - on the VCON system or via Illuminate). Your presentation will be graded on the following criteria: 1) how well did you research your topic? (e.g., information comes from multiple sources); 2) how clear is your presentation; and 3) how effective are your audio-visual aids? (e.g., slides legible and enhance, rather than detract from, audience comprehension of your material).

Course Goals:

The goal of this course is for students to gain a broad understanding of patterns of life history variation in Pacific salmon and the mechanisms behind these patterns.

Learning Outcomes:

You should emerge from this course with -

- an understanding of patterns of life history variation in Pacific salmon
- the ability to understand salmon life history variation in its evolutionary and ecological context
- the ability to critically read and discuss literature in salmon ecology and evolution
- the ability to summarize and synthesize information in written and oral formats

Instructional Methods:

The course will be a combination of lecture and discussion. Lecture materials (such as Power Point slides and video) will be shared with students using the internet and the E-live feature of Blackboard. We will use V-Con to connect students across campuses for discussion. Reading materials (pdf format) will be posted on Blackboard.

Course Policies:

Missed classes cannot be made up, as a large part of the instructional material will be discussion among instructor and students. Distance delivery makes it possible for students to participate wherever they have an internet connection; therefore if you will be out of town, I encourage you to join us via E-live. Plagiarism will not be tolerated (i.e., if unoriginal work is submitted, no credit will be given for the paper). You must provide citations for any information (including figures) used in your oral presentation. I am happy to discuss with you ways to provide such citations.

UAF Blackboard:

Course materials such as assigned discussion papers will be available on Blackboard. Lecture materials will be posted to Blackboard following their presentation in class. Papers for Discussion will be posted to Blackboard at least 5 days prior to class.

Disability Services:

The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. I will work with the Office of Disabilities Services to provide reasonable accommodation to students with disabilities; *please let me know* if you need such accommodations.

Course Schedule:

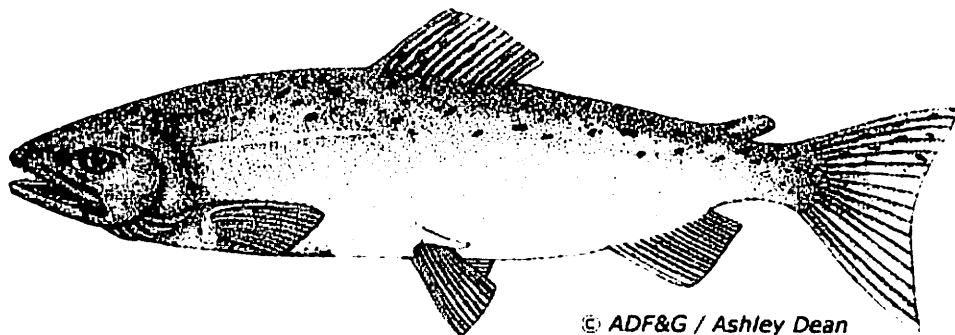
*pdf available on Blackboard; see Blackboard for weekly Discussion Papers (not shown here)

Date	Subject	Readings**
11/30 (Th)	Course Syllabus and Schedule Introduction to Pacific Salmon	Syllabus Quinn, chapter 1
9/4 (T)	Adult homeward migration	Quinn, chapters 2-4
9/6 (Th)	Homing and straying	Quinn, chapter 5
9/11 (T)	Spawning and Senescence	Quinn, chapter 6
9/13 (Th)	Adult salmon in freshwater ecosystems	Quinn, chapter 7
9/18 (T)	Incubation	Quinn, chapter 8
9/20 (Th)	Emergence and early movement	Quinn, chapter 9
9/25 (T)	Early Life in Freshwater I	Quinn, chapter 10
9/27 (Th)	Early Life in Freshwater II	Quinn, chapter 11
10/2 (T)	Early Life in Freshwater III	Quinn, chapter 11
10/4 (Th)	Smoltification and seaward migration Presentation Topic Due	Quinn, chapter 12
10/9 (T)	Why go to sea? Alternatives to anadromy	Quinn, chapter 12 Hendry et al. 2004*
10/11 (Th)	Midterm Exam (Material through 10/9)	N/A
10/16 (T)	Early Life at Sea: Estuaries and Nearshore Environment	Quinn, chapter 13
10/18 (Th)	Early growth and survival at sea	Quinn, chapter 16

Date	Subject	Readings**
10/23 (T)	Controls on salmon abundance at sea	Quinn, chapter 15
10/25 (Th)	Movement patterns at sea Age at maturity schedules	Quinn, chapter 14, 17
10/30 (T)	Local adaptation, population structure, and stock identification	Quinn, chapter 18
11/1 (Th)	Alaska Chapter AFS meeting: NO CLASS	N/A
11/6 (T)	The 4H's, Harvest	Morishima & Henry 2000*
11/8 (Th)	Management of Salmon Fisheries - Dr. Milo Adkison (UAF)	AK Escapement Goal Policy* AK Sustainable Fisheries Policy*
11/13 (T)	Hatcheries	Hillborn & Winton 1993* Brannon et al. 2004*
11/15 (Th)	Habitat: mining and salmon	Woody et al. 2010*
11/20 (T)	Habitat and Hydropower	Nehison et al. 1991*
11/22 (Th)	Thanksgiving Holiday NO CLASS	N/A
11/27 (T)	Salmon and the Endangered Species Act	Waples 1991* Gustafson et al. 2007*
11/29 (Th)	Complexity and salmon resilience	Quinn, chapter 19 Hillborn et al. 2003*
12/4 (T)	Complexity in salmon management and conservation - AYK case study	Krueger & Zimmerman 2009 (excerpts)*
12/6 (Th)	Student Presentations	
12/?? (?)	Final Exam (comprehensive, focus on material after 10/9)	

FISH F633: Pacific Salmon Life Histories

3 credits



- Meeting:** Tuesdays & Thursdays 3:40-5:10p
F633 F01 – Fairbanks – O'Neill 214
F633 FJ1 – Juneau – Lena 101
- Instructor:** Dr. Megan McPhee
309 Lena (Juneau)
(907) 796-5464
mvmcphee@alaska.edu
- Office Hours:** Tuesday 2:00-3:00 p
Thursday 2:00-3:00 p
Or by appointment
- Prerequisites:** FISH/BIOL F427 (Ichthyology) or permission of instructor
- Readings:** Thomas P. Quinn (2005) *The Behavior and Ecology of Pacific Salmon & Trout*. American Fisheries Society, Bethesda, Maryland. 378 p. ISBN 0-295-98457-0

Journal articles (pdf format) - available on BlackBoard
- Course Description:** This course provides an introduction to the life histories of Pacific salmon (*Oncorhynchus*). We will explore variation in life history traits within and among species, as well as within and among populations, at each stage of the salmon life cycle. Life histories will be understood in evolutionary and ecological context. We will also discuss management and conservation of Pacific salmonid species throughout their range, but with focus on Alaska. Graduate students are required to lead discussion and evaluate peers' work.

Course Evaluation:	1) Mid-term exam	(15 pts.)
	2) Discussion	
	Lead	(5 pts.)
	Participation	(10 pts.)
	3) Final Project	
	Draft paper	(10 pts.)
	Peer evaluation	(15 pts.)
	Final paper	(25 pts.)
	4) Final exam	<u>(20 pts.)</u>
	TOTAL	100 pts.
Grading Scale:		A: 91-100 pts.
(no curve)		B: 81-90 pts.
		C: 71-80 pts.
		D: 61-70 pts.
		F: 0 - 60 pts.

Discussion:

We will reserve the last ~30 minutes of course time to discuss 1-2 papers from the primary literature (assigned ahead of time; provided on Blackboard). Each graduate student will lead discussion at least once during the semester. You will be graded on your leadership based on: 1) preparedness (knowledge of the assigned reading), 2) critical thinking (ability to evaluate methods, results and conclusions in the paper), and 3) ability to draw other students into the discussion. You will also be graded on your participation, whether or not you are leading discussion. This is meant to be a *low-stress* way to familiarize you with the salmon literature and to get you thinking critically about questions and methodology in salmon biology. A good participant raises relevant points and contributes to each discussion, but also allows other students to contribute and gives other's points due consideration.

Final Project:

The final project will consist of developing and writing a review paper on a topic related to Pacific salmon ecology, evolution, or management, and reviewing similar review papers from your peers. A brief description of your paper topic will be due on **4 Oct**, a draft full proposal will be due **6 Nov**, and the revised full proposal will be due **6 Dec**. You will also review draft papers of your peers. Papers must be written in the format required by Transactions of the American Fisheries Society (instructions for authors will be posted on Blackboard). Products must be submitted electronically (in Microsoft Word format) via email or Blackboard. Your paper will be evaluated on 1) how well you reviewed the scientific literature relevant to your topic; 2) how well you synthesized various journal articles into a coherent, 'state of the science' summary of your topic; 3)

use of citations (proper attribution); and 4) use of proper grammar and scientific writing style.

Course Goals:

The goal of this course is for students to gain a broad understanding of patterns of life history variation in Pacific salmon and the mechanisms behind these patterns.

Learning Outcomes:

You should emerge from this course with -

- an understanding of patterns of life history variation in Pacific salmon
- the ability to understand salmon life history variation in its evolutionary and ecological context
- the ability to critically read and discuss literature in salmon ecology and evolution
- the ability to summarize and synthesize information in written and oral formats

Instructional Methods:

The course will be a combination of lecture and discussion. Lecture materials (such as Power Point slides and video) will be shared with students using the internet and the E-live feature of Blackboard. We will use V-Con to connect students across campuses for discussion. Reading materials (pdf format) will be posted on Blackboard.

Course Policies:

Missed classes cannot be made up, as a large part of the instructional material will be discussion among instructor and students. Distance delivery makes it possible for students to participate wherever they have an internet connection; therefore if you will be out of town, I encourage you to join us via E-live. Plagiarism will not be tolerated (i.e., if unoriginal work is submitted, no credit will be given for the paper).

UAF Blackboard:

Course materials such as assigned discussion papers will be available on Blackboard. Lecture materials will be posted to Blackboard following their presentation in class. Papers for Discussion will be posted to Blackboard at least 5 days prior to class.

Disability Services:

The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. I will work with the Office of Disabilities Services to provide reasonable accommodation to students with disabilities; *please let me know* if you need such accommodations.

Course Schedule:

*pdf available on Blackboard; see Blackboard for weekly Discussion Papers (not shown here)

Date	Subject	Readings**
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10/4 (Th)	Smoltification and seaward migration Review Paper Topic Due	Quinn, chapter 12
10/9 (T)	Why go to sea? Alternatives to anadromy	Quinn, chapter 12 Hendry et al. 2004*
10/11 (Th)	Midterm Exam (Material through 10/9)	N/A
10/16 (T)	Early Life at Sea: Estuaries and Nearshore Environment	Quinn, chapter 13
10/18 (Th)	Early growth and survival at sea	Quinn, chapter 16

Date	Subject	Readings**
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10/30 (T)	Local adaptation, population structure, and stock identification	Quinn, chapter 18
11/1 (Th)	Alaska Chapter AFS meeting; NO CLASS	N/A
11/6 (T)	The 4H's, Harvest Review Paper Draft Due - 5:10 pm <i>Peer Reviews Assigned</i>	Morishima & Henry 2000*
11/8 (Th)	Management of Salmon Fisheries - Dr. Milo Adkison (UAF)	AK Escapement Goal Policy* AK Sustainable Fisheries Policy*
11/13 (T)	Hatcheries	Hilborn & Winton 1993* Brannon et al. 2004*
11/15 (Th)	Habitat: mining and salmon	Woody et al. 2010*
11/20 (T)	Habitat and Hydropower Peer Reviews Due <i>Peer reviews distributed to Author</i>	Nehlsen et al. 1991*
11/22 (Th)	Thanksgiving Holiday NO CLASS	N/A
11/27 (T)	Salmon and the Endangered Species Act	Waples 1991* Gustafson et al. 2007*
11/29 (Th)	Complexity and salmon resilience	Quinn, chapter 19 Hilborn et al. 2003*
12/4 (T)	Complexity in salmon management and conservation - AYK case study	Krueger & Zimmerman 2009 (excerpts)*
12/6 (Th)	Student Presentations Final Review Paper due by 5:10 pm	
12/?? (?)	Final Exam (comprehensive, focus on material after 10/9)	

Curriculum Committee SFOS

Members: Trent Sutton (Chair)
Katrín Iken
Jeremy Mathis
Andre Lopez

06 December 2011

Revised Course

Course Number: FISH 433

Course Title: Pacific Salmon Life Histories

Instructor: McPhee

First Time of Offering: Yes

General Recommendations:

None

Faculty Senate Form:

Clarify and Address the following:

- Check the box “Description” for section 2 as this is being changed as well.
- For the box “Stacked”, remove “633”.
- For the current course description (section 6), provide the exact course catalog description as it appears (do not modify it at all).
- For the new course description (section 7), provide the new description for each version (433 and 633) and underline any changes from the current course description. Be sure to type these up as you want them to exactly appear in the course catalog with the course title, credits, description, credit distribution, and prerequisites. For the 633 version, do not state what graduate students will do to make the course different (that is only necessary for the course justification). Please take a look at course description examples in the UAF course catalog. Also, be sure to italicize *Oncorhynchus*.
- For section 10, the course is stacked, not cross listed. Please change.
- For section 12, the Committee recommends changing the wording “affect” to “benefit”.
- For section 13, remove the second paragraph on negative impacts as that weakens your argument to stack the course. Just state that “No negative impacts are expected”.
- For the justification, change “cross listing” to “stacked”. Remove the 5th and 6th sentences of the first paragraph and state that will differentiate the course between undergraduate and graduate students.

Syllabus:

- For both syllabi, the prerequisite should be FISH/BIOL 427