

10/20/14

10 - GNC

SEP 26 2014

FORMAT 1

Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500).
See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

TRIAL COURSE OR NEW COURSE PROPOSAL

SUBMITTED BY:

Department	Fisheries	College/School	SFOS
Prepared by	Anne Beaudreau	Phone	(907) 796-5454
Email Contact	abeaudreau@alaska.edu	Faculty Contact	Anne Beaudreau

1. ACTION DESIRED
(CHECK ONE): Trial Course ☐ New Course ☒

2. COURSE IDENTIFICATION:

Dept	FISH	Course #	605	No. of Credits	2
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Justify upper/lower division status & number of credits:

This is a graduate-level course is aimed at students who have completed a portion of their graduate research and seek to gain skills in communicating their original work with public audiences. The course is comprised of 2 hours of lecture and discussion per week.

3. PROPOSED COURSE TITLE: Communicating Science to the Public

4. To be CROSS LISTED? YES/NO ☐ No If yes, Dept: Course #

NOTE: Cross-listing requires approval of both departments and deans involved. Add lines at end of form for additional required signatures.

5. To be STACKED? YES/NO ☐ No If yes, Dept. Course #

How will the two course levels differ from each other? How will each be taught at the appropriate level?:

Stacked course applications are reviewed by the (Undergraduate) Curricular Review Committee and by the Graduate Academic and Advising Committee. Creating two different syllabi—undergraduate and graduate versions—will help emphasize the different qualities of what are supposed to be two different courses. The committees will determine: 1) whether the two versions are sufficiently different (i.e. is there undergraduate and graduate level content being offered); 2) are undergraduates being overtaxed?; 3) are graduate students being undertaxed? In this context, the committees are looking out for the interests of the students taking the course. Typically, if either committee has qualms, they both do. More info online – see URL at top of this page.

6. FREQUENCY OF OFFERING: Spring Odd-numbered Years
Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (AY2013-14 if approved by 3/1/2013; otherwise AY2014-15) Spring 2017

8. 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. Furthermore, any core course compressed to less than six weeks must be approved by the Core Review Committee.

COURSE FORMAT: (check all that apply) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☒ 6 weeks to full semester

OTHER FORMAT (specify)
Mode of delivery (specify lecture, field trips, labs, etc) Lecture, discussion

9. CONTACT HOURS PER WEEK:LECTURE
hours/weeks LAB
hours /week PRACTICUM
hours /week

Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-guidelines-for-computing/> for more information on number of credits.

OTHER HOURS (specify type) **10. COMPLETE CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible):***Example of a complete description:***FISH F487 W, O Fisheries Management****3 Credits Offered Spring**

Theory and practice of fisheries management, with an emphasis on strategies utilized for the management of freshwater and marine fisheries. *Prerequisites:* COMM F131X or COMM F141X; ENGL F111X; ENGL F211X or ENGL F213X; ENGL F414; FISH F425; or permission of instructor. Cross-listed with NRM F487. (3+0)

FISH 605 Communicating Science to the Public**2 Credits Offered Spring Odd-numbered Years**

In this course, students will gain practical skills in communicating their research to peers and public audiences. Short lectures, readings, and discussion will focus on communication issues in environmental science and management and best practices for good oral and written communication. Throughout the semester, students will engage with professionals in science journalism, education, and resource management. Students will gain direct experience in communicating science to public audiences through a group outreach event that they will co-organize at the culmination of the course.

Prerequisites: graduate standing in the sciences; or permission of instructor. (2+0)

11. COURSE CLASSIFICATIONS: Undergraduate courses only. Consult with CLA Curriculum Council to apply S or H classification appropriately; otherwise leave fields blank.H = Humanities S = Social Sciences

Will this course be used to fulfill a requirement for the baccalaureate core? If YES, attach form.

YES: NO: X ☒

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

O = Oral Intensive, **Format 6** W = Writing Intensive, **Format 7** X = Baccalaureate Core **11.A Is course content related to northern, arctic or circumpolar studies? If yes, a****added in the printed Catalog, and flagged in Banner.****"snowflake" symbol will be**YES NO ☒**12. COURSE REPEATABILITY:**

Is this course repeatable for credit?

YES NO ☒

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 for credit, what is the maximum number of credit hours that may be earned for this course?

 CREDITSIf the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course? CREDITS**13. GRADING SYSTEM:** Specify only one. Note: Changing the grading system for a course later on constitutes a Major Course Change – Format 2 form.LETTER: ☒PASS/FAIL: ☐

RESTRICTIONS ON ENROLLMENT (if any)**14. PREREQUISITES**

These will be required before the student is allowed to enroll in the course.

15. SPECIAL RESTRICTIONS, CONDITIONS**16. PROPOSED COURSE FEES**

Has a memo been submitted through your dean to the Provost for fee approval?

Yes/No

17. PREVIOUS HISTORY

Has the course been offered as special topics or trial course previously?

Yes/No

If yes, give semester, year, course #, etc.:

18. ESTIMATED IMPACT

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

This course requires a classroom at the Lena Point facility in Juneau two hours per week; if distance delivered, it will require a room with VCON capability at each site. Computers will be needed to complete some in-class exercises. Students will need to provide their own laptops, unless they are available for checkout from their home department.

Anne Beaudreau is teaching this course as a part of her faculty workload; it will serve as one of the 2-3 courses she is required to teach each academic year.

19. 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

Yes

X

I discussed the course readings with Karen Jensen on 7/15/14. Most required readings are online resources and the articles in peer-reviewed publications are available via the UAF library system. Two of four books that I use in the course are available through UAF as electronic books. The two other books are not currently available at UAF and could only be purchased as print copies, not e-books. Karen suggested that they either purchase print copies or Kindle editions (cost per book on Amazon: \$7-16).

20. 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)

The proposed course will most directly impact the Fisheries Department in the School of Fisheries and Ocean Sciences. This course will offer graduate students an opportunity to gain hands-on skills in science communication. The course will be taught from Juneau. Due to the highly interactive nature of this course, it will be distance-delivered only to sites with at least two students enrolled. There are currently no other courses of its type offered in Juneau or other sites with fisheries graduate students (e.g., Sitka, Kodiak) and it is very different from other communication-related courses in Fairbanks. The fisheries graduate program committee and other SFOS faculty have voiced their support of this course as a valuable addition to the curriculum.

There are two classes taught in Fairbanks that relate to science communication.

Science Communication (STO 601) is taught by Laura Conner. This course is not distance-delivered to sites outside of Fairbanks. I talked extensively with Dr. Conner when developing ideas and the direction for my course. While we cover some similar themes and topics, our courses are quite different in their overall focus. STO 601 was developed as part of a training program for students in the NSF GK-12 program and is focused heavily on teaching and communicating science to children. In that course, students lead programs in K-12 school settings, explore pedagogical theory, and learn

how to use active and inquiry-based teaching strategies. My course does not include topics on teaching or pedagogy and focuses on communicating students' original research to adult audiences. In addition, my course is centered on natural resource management issues and the intersection between science and policy.

Scientific Writing Techniques (MSL 694) is taught by Brenda Norcross and focuses on technical scientific writing (i.e., publication in peer-reviewed journals, grant proposals). In contrast, the writing components of my course are focused on developing articles about students' research for lay audiences (e.g., blogs, popular press).

21. POSITIVE AND NEGATIVE IMPACTS

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

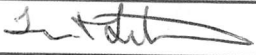
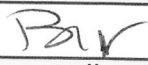
I expect this course to appeal to graduate students in Fisheries and other environmental science programs (e.g., marine science and limnology, biology, natural resource management). The course will not be a requirement, but will give students another option to fulfill graduate level elective coursework. There should be no negative impacts, as this course will not be a requirement and should not reduce enrollment in other courses.

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. Use as much space as needed to fully justify the proposed course.

There is an increasing demand among our graduate students for courses that provide them with practical, real-world skills in communication and problem-solving. This course is designed specifically to meet the needs and interests of fisheries graduate students, many of whom will pursue careers in natural resource science and management that involve substantial engagement with the public. Learning how to translate their research in an understandable way and effectively communicate with stakeholders is of critical importance for students in the applied sciences. As researchers, we are increasingly asked to demonstrate the broader impacts of what we do to funding agencies, other scientists, and the general public. This course will provide a valuable opportunity for students to practice those communication skills before they join the workforce and makes a unique contribution to the existing curriculum.

APPROVALS: Add additional signature lines as needed.

SEE ATTACHED EMAIL	Date	
Signature, Chair, Program/Department of:		
	Date	9/19/14
Signature, Chair, College/School Curriculum Council for: SFOS		
	Date	9/28/14
Signature, Dean, College/School of: SFOS		

Offerings above the level of approved programs must be approved in advance by the Provost.

	Date	
Signature of Provost (if above level of approved programs)		

UNIVERSITY
of ALASKA

Christina Neumann <clneumann@alaska.edu>

Communicating Science to the Public: new course paperwork

Shannon Atkinson <shannon.atkinson@alaska.edu>

Fri, Aug 1, 2014 at 1:08 PM

To: Christina Neumann <clneumann@alaska.edu>

Cc: Anne Beaudreau <abeaudreau@alaska.edu>

Hi Christina- Attached are the graduate committee's comment for the new course entitled, " Communicating Science to the Public". Pls use this email as my signature on the form. Pls let me know that you receive this. Thanks!

[Quoted text hidden]

3 attachments

**Beaudreau_Communicating Science_Syllabus & Schedule.doc**
102K**Beaudreau_New Course Proposal_CommSci.docx**
48K**Communicating Science to the Public Comments from the Graduate Committee.docx**
15K

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

	Date	
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Signature, Chair

Faculty Senate Review Committee: ___Curriculum Review ___GAAC

___Core Review ___SADAC

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)

	Date	
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Signature, Chair, Program/Department of:

	Date	
--	------	--

Signature, Chair, College/School Curriculum Council for:

	Date	
--	------	--

Signature, Dean, College/School of:

ATTACH COMPLETE SYLLABUS (as part of this application). This list is online at:

<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:

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

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

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

3. Course readings/materials:

☐ Course textbook title, ☐ author, ☐ edition/publisher.

☐ Supplementary readings (indicate whether ☐ required or ☐ recommended) and

☐ any supplies required.

4. Course description:

☐ Content of the course and how it fits into the broader curriculum;

☐ Expected proficiencies required to undertake the course, if applicable.

☐ Inclusion of catalog description is *strongly* recommended, and

☐ Description in syllabus must be consistent with catalog course description.

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

6. ☐ Student Learning Outcomes (more specific)

7. Instructional methods:

☐ 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:

☐ 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:

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

10. Evaluation:

☐ Specify how students will be evaluated, ☐ what factors will be included, ☐ their relative value, and ☐ how they will be tabulated into grades (on a curve, absolute scores, etc.) ☐ Publicize UAF regulations with regard to the grades of "C" and below as applicable to this course. (Not required in the syllabus, but is a convenient way to publicize this.) Link to PDF summary of grading policy for "C":

http://www.uaf.edu/files/uafgov/Info-to-Publicize-C_Grading-Policy-UPDATED-May-2013.pdf

11. Support Services:

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

12. Disabilities Services: Note that the phone# and location have been **updated**. <http://www.uaf.edu/disability/> The Office of Disability Services implements the Americans with Disabilities Act (ADA), and ensures that UAF students have equal access to the campus and course materials.

☐ State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655) to provide reasonable accommodation to students with disabilities.

5/21/2013

Communicating Science to the Public

FISH 605

Spring, Odd-numbered years

Course information

2 credits (2+0)

Prerequisites: graduate standing in the sciences
(advanced undergraduates may take the course
with instructor permission)

Schedule: Friday 9-11 am

Location: Juneau and other sites by permission of
instructor. Due to the highly interactive nature of this
course, it will be distance-delivered only to sites with
at least two students enrolled.

Instructor

Dr. Anne Beaudreau

321 Lena Point Building

(907) 796-5454

E-mail: abeaudreau@alaska.edu

Skype: anne.beaudreau

Office hours: Friday 11am-1 pm
or by appointment

Course readings/materials

There are four required books for this course (*see reading list below*). Additional readings will be made available on Blackboard. Students will need to provide their own laptops, unless they are available for checkout from their home department.

Course description

FISH 605 Communicating Science to the Public

2 Credits Offered Spring Odd-numbered Years

In this course, students will gain practical skills in communicating their research to peers and public audiences. Short lectures, readings, and discussion will focus on communication issues in environmental science and management and best practices for good oral and written communication. Throughout the semester, students will engage with professionals in science journalism, education, and resource management. Students will gain direct experience in communicating science to public audiences through a group outreach event that they will co-organize at the culmination of the course. *Prerequisites: graduate standing in the sciences; or permission of instructor.* (2+0)

Course goals

As researchers, we are increasingly asked to demonstrate the broader impacts of what we do to funding agencies, other scientists, and the general public. This course will provide a valuable opportunity for students to practice those communication skills before they join the workforce. The broad goals of this course are as follows:

- (1) *Build the oral, written, and visual communication skills that graduate students will use throughout their careers.* Specifically, students will gain extensive practice in presenting their original research to peer and public audiences. Our focus is predominantly on oral presentation with the use of visual aids (e.g., images, video, data plots, other graphics) and writing for popular media outlets (e.g., blogs, magazine or newspaper articles)
- (2) *Increase graduate student skill in communicating science to diverse audiences.* Students will learn to assess the prior knowledge of an audience and tailor their communication to that group. They will learn to use tools such as metaphors and analogies to tell the story of their research.

- (3) *Provide experience in facilitating discussions and constructive critiques among peers.* Throughout the semester, students will develop their skills in peer-review through constructive criticism and discussion of each other's work. They will learn to facilitate group discussion of literature on learning and communication.

Student learning outcomes

By the completion of this course, students will be able to:

- Present their own research clearly and effectively, with minimal jargon, in oral and written form for lay audiences.
- Assess the prior knowledge of their audience and, accordingly, translate their research effectively to specific audiences (e.g., fisheries stakeholders, natural resource managers, other scientists, general public).
- Communicate the broader impact of their own research, in particular, being able to clearly and concisely articulate why their research matters. They will practice doing so one-on-one, in small peer groups, and with a large public audience.
- Develop metaphors and analogies to effectively translate science concepts to audiences of all ages and backgrounds.
- Understand the purpose of and create original infographics to help communicate scientific concepts.
- Lead and facilitate discussions among peers and constructive critiques of each other's work.

Reading List

Baron N. 2010. Escape from the Ivory Tower. Washington, DC: Island Press. *Available as UAF e-book at no cost.*

Dean, Cornelia. 2009. Am I Making Myself Clear? A Scientist's Guide to Talking to the Public. Cambridge, MA: Harvard University Press. *Available as UAF e-book at no cost.*

Heath, Chip & Dan Heath. 2007. Made to Stick. New York, NY: Random House. *Available from Amazon for approx. \$12 (Kindle) or \$7 (paperback).*

Olson, Randy. 2009. Don't be Such a Scientist. Washington: Island Press. *Available from Amazon for approx. \$10 (Kindle) or \$16 (paperback).*

Other readings will be assigned throughout the semester, and will be posted on Blackboard approximately 1 week prior to the due date. See course schedule below for more details.

Instructional methods and evaluation

The course will be taught using a combination of discussion and active learning methods. Discussions will focus on current issues in the presentation of science to the public. Classroom exercises and workshops with professionals engaged in science communication (2-5 over the course of the semester) will provide students with an opportunity to practice oral and written communication for multiple audiences and purposes. Course materials, including assigned readings, will be provided to students through Blackboard.

Workshops and discussion

Students will practice their communication skills throughout the semester by leading and participating in class discussions and workshops. Each student will lead 1-2 in-class discussions about the assigned readings for the week. Students will also participate in 2-5 workshops led by invited experts in science journalism and science-based decision making in natural resource management. Workshops take place during a regularly scheduled class period and typically include a lecture and activities led by the invited expert. The total number of workshops will be determined by the instructor prior to the start of the course based on the availability of local and visiting guests.

Public presentations

Students will develop a presentation about their own research designed for a general public audience. Students will present to their peers, revise their presentations based on feedback, and then present their talks as a science outreach event in a public venue. The students will collaboratively identify potential venues for their final presentations and contact staff there to determine interest in hosting a science outreach event. For example, venues could include a public library, a museum, a government facility, or an educational institution. The outreach event will be conceived and coordinated by the students and instructor, in coordination with relevant staff at the chosen venue. Following the outreach event, students will be asked to self-evaluate their performance and, as a group, discuss the successes and lessons learned from the experience.

News article analysis

Read and present the scientific research behind statements made in a popular news media article (e.g., New York Times) covering a marine science-related issue of your choosing. Assess the accuracy of media portrayal of the science and evaluate the challenges of conveying complicated scientific concepts to a lay audience.

Written communication

Students will write a short article on their own research or a current research topic of their choice for the popular press. Articles will be posted on the instructor's website (<http://sites.google.com/site/annebeaudreau>).

Point breakdown

Assignment/Exam	Points
Final presentation to the public	200
Article for popular press	100
News article analysis	100
Participation	100
Discussion leader	50
TOTAL	550

Grades will be calculated as a percentage of the 550 points possible in the course. Rubrics will be distributed that describe specific scoring procedures for each assignment. Students are encouraged to be creative and push themselves out of their comfort zone to ultimately improve their communication skills. Therefore, 50% of the final presentation grade will be based on effort

throughout the semester and improvement following peer input. The remaining 50% will be based on oral presentation style, narrative and structure, clarity of ideas, and quality of visuals.

90-100% = A
80-89% = B
70-79% = C
60-69% = D
Below 60 = F

Course policies

My role in this course is to largely serve as a facilitator in your practice of science communication. This includes providing the necessary background on each week's topics, facilitating in-class exercises, and moderating classroom discussions. Your role is to be an active, contributing member of the class.

Attendance and in-class participation are very important in this course. If you cannot attend class for a legitimate reason, it is your responsibility to contact me in advance. With the exception of emergencies, late assignment requests will only be honored if a legitimate reason is provided to me in writing at least one week prior to the due date.

Plagiarism and other forms of academic dishonesty will not be tolerated in this class. Plagiarism is defined as the submission or presentation of work that is not a student's own without acknowledgment of the source. Submission of the same work in more than one course without prior approval of all professors responsible for the courses is also considered academic dishonesty. Any suspected cases of academic misconduct will be handled according to University regulations and violations will result in automatic failure of the course.

You are responsible for understanding and following the UAF Student Code of Conduct (<http://www.uaf.edu/catalog/current/academics/regs3.html>).

Support services

I encourage you to take advantage of my scheduled office hours or, if necessary, make an appointment to meet with me. I am happy to provide the support you need to be successful in the course. Students with special needs or concerns can contact Student Support Services (474-6844). Please let me know at the beginning of the semester if you will require accommodations due to a documented disability and I will work with you in conjunction with the Office of Disability Services (<http://www.uaf.edu/disability/>). You can also contact Disability Services by phone (907-474-5655) or e-mail (fydso@uaf.edu).

Course schedule: F 0900-1100***SUBJECT TO REVISION***

Week/ Dates	Topic	Assigned reading
1	Introduction and overview <i>Personal science communication stories; Case study: communicating climate science</i>	<ol style="list-style-type: none"> 1. Somerville RCJ, Hassol SJ (2011) Communicating the science of climate change. <i>Physics Today</i>, Oct 2011:48-53 2. U.S. Global Change Research Program (2009) Regional climate impacts: Alaska. pp. 139-144 <i>In</i> Global climate change impacts in the U.S. Karl TR, Melillo JM, Peterson TC (eds) Cambridge: Cambridge University Press. Available: http://globalchange.gov/usimpacts
2	Ways of knowing and the culture of science <i>Knowledge generation and transmission; The nature and practice of science; Science culture</i>	<ol style="list-style-type: none"> 1. Baron N. Escape from the Ivory Tower. Chapters 1 and 2. 2. Medawar, P.B. Is The Scientific Paper a Fraud? Experiment: A Series of Scientific Case Histories First Broadcast in the BBC Third Programme, David Edge, editor. London: British Broadcasting Corporation, 1964, pp. 7-13.
3	Storytelling and developing a theme <i>Elements of a story; Framing your research story</i>	<ol style="list-style-type: none"> 1. Dean C. Am I Making Myself Clear? Chapters 8 and 9 2. Baron N. Escape From the Ivory Tower. Chapter 4. 3. Heath and Heath. Chapter 6. Stories.
4	Science translation <i>Science and journalism; Terminology; Analogies and metaphors</i>	<ol style="list-style-type: none"> 1. Dean C. Am I Making Myself Clear? Chapters 3-6
5	Knowing your audience <i>Assessment of prior knowledge and misconceptions; Building rapport</i>	<ol style="list-style-type: none"> 1. Olson R. Don't Be Such a Scientist. Chapters 3 and 5. 2. Baron N. Escape from the Ivory Tower. Chapter 4 (<i>review</i>).
6	Communicating science to stakeholders <i>Message box; Aquatic conservation case study</i>	<ol style="list-style-type: none"> 1. Baron N. Escape from the Ivory Tower. Chapter 8. 2. Olson R. Don't Be Such a Scientist. Chapters 1, 2, and 3 (<i>review</i>).
7	Science advocacy <i>Advocacy and ethics; Finding your advocacy comfort zone</i>	<ol style="list-style-type: none"> 1. Advocacy in Science: Summary of a Workshop convened by the American Association for the Advancement of Science. Washington, DC. October 17-18, 2011
8	Writing for lay audiences <i>Principles of good science writing; Writing workshop</i>	<ol style="list-style-type: none"> 1. Dean C. Am I Making Myself Clear? Chapter 10 2. Rafter, Michelle. Writing basics: how to write a lead. URL: http://michellerafter.com/2013/02/20/writing-basics-the-lead/ 3. Scanlan, Chip. The Nut Graf, Part I. URL: http://www.poynter.org/how-tos/newsgathering-storytelling/chip-on-your-shoulder/11371/the-nut-graf-part-i/ 4. Tucker, Ian. Science writing: how do you make complex issues accessible

		and readable? URL: http://www.guardian.co.uk/books/2012/dec/02/science-writing-debate-pinker-gleick-greene-frank-foer
9	NO CLASS – SPRING BREAK	
10	Visual display of information <i>Presenting information graphically—tips and tools; Infographics; Single slide activity</i>	<ol style="list-style-type: none"> 1. Yau N (2011) Visualize This, Chapter 1. Wiley Publishing, Inc.: Indianapolis, IN 2. Infographics <ol style="list-style-type: none"> a. http://www.verysmallarray.com/?p=1538 b. http://www.washingtonpost.com/wp-srv/special/nation/us-weekly-flu-report/?tid=rr_mod c. http://www.informationisbeautiful.net/play/mountains-out-of-molehills/ d. http://www.st.nmfs.noaa.gov/economics/publications/feus/fisheries_economics_2011
11	Public process of resource management <i>Science and policy; Fisheries management case study</i>	<ol style="list-style-type: none"> 1. Conway FDL (2006) Sharing knowledge, power, and respect: Keys in bringing communities together to improve science, practice, and relationships. <i>Journal of Higher Education Outreach and Engagement</i> 11(1):133-143 2. Verweij MC, vanDensen WLT, Mol AJP (2010) The tower of Babel: Different perceptions and controversies on change and status of North Sea fish stocks in multi-stakeholder settings. <i>Marine Policy</i> 34:522-533
12	Science and film <i>Differences between film and other science communication approaches; Discussion: effective use of video; Speed talks</i>	<ol style="list-style-type: none"> 1. Olson, R. Don't Be Such a Scientist. Appendix 2, pp. 181-185 2. Zimmer, Carl (2010) Communication: Learning to love science films. <i>Nature</i> 468:35-36. URL: http://www.nature.com/nature/journal/v468/n7320/full/468035a.html 3. An Introduction to Science and Wildlife Filmmaking: http://www.untamedscience.com/film
13	Presentation peer-review	No required readings
14	Presentation peer-review	No required readings
15	Public presentations. Final thoughts and outreach event debrief.	No required readings

Curriculum Committee SFOS

Members: Trent Sutton (Chair)
Brenda Konar
Ana Aguilar-Islas
Andres Lopez

25 August 2014

New Course

Course Number: FISH 605

Course Title: Communicating Science to the Public

Instructor: Beaudreau

First Time of Offering: Yes

General Comments and Recommendations:

Given the large number of graduate students (both FISH and MSL) and general lack of a true science-based communications course in Fairbanks, the SFOS Curriculum Committee strongly supports the recommendation of the Fisheries Graduate Program Committee to consider offering the course via distance to Fairbanks. As noted in the proposal, there are a couple of courses available in Fairbanks that appear similar but are functionally very different. Offering the opportunity for graduate students broadly within SFOS (or at least within Fisheries Division) will provide an equal opportunity for all students.

Faculty Senate Form:

Clarify and Address the following:

- For Frequency of Offering, please remove “As Demand Warrants”.
- For Semester and Year of First Offering, please change to Spring 2017 since this will be the first time that this actual course will be offered.
- For the catalog description, please include the course number (605). Also, I the outreach event organized individually or for the entire class (need to specify).
- For course classifications (point 11), please check the “no” box as this course will not fulfill requirements in the baccalaureate core.
- Why no letter-based grading system? While pass/fail is generally acceptable for one-credit seminars, courses with two or more credits (especially those requiring evaluated assignments) should be grade based. The SFOS Curriculum Committee recommends adopting a letter-grade system for this course.
- Impacts on Programs/Departments – Rationale is provided for teaching the course only to Juneau graduate students because it is highly interactive. Many courses in SFOS are highly interactive and are taught to multiple locations using videoconference equipment and other distance-delivery modalities. The two courses listed (STO 601 and MSL 649) as related to science communication are vastly different based on the description provided in the rationale. Therefore, there really is no Fairbanks-equivalent course related to this topic. Are either

MSL 601 Professional Development or MSL 602 Proposal Writing similar or different to this course content?

- Positive and Negative Impacts – It is stated that this course would appeal to graduate students in Fisheries and other environmental science programs. However, that is not the case since it will only be offered in Juneau (and consequently is only available to Fisheries graduate students at that location). Please clarify this other group of students.
- Justification – Please remove the second paragraph of the justification section as it is not directly related to the content needed for this section.

Syllabus:

- The course description needs the course number (605).
- Course learning objectives are very vague – need to spell out and be specific. This is a significant area of focus at the next level of review (UAF GAC).
- Move the orphaned header (Reading List) to the next page. Same for *Written communication* on the next page.
- The student learning outcomes are more activities than outcomes/objectives. Please provide greater depth on what you want students to get out of this class.
- Are the textbooks readily available and is there high cost for them? Given that there are four books required (and two of them are presumably free as e-books), the committee wanted to make sure that the textbooks are not too expensive to where students would not purchase them.
- Under instruction, it is listed that there will be workshops. However, the syllabus seems to indicate only one workshop. Is there more than one or only one workshop? Please resolve discrepancy.
- It is not clear how the public venue presentation is set up. Is that the responsibility of the students, the instructor, either? Please provide additional details.
- Evaluation – UAF GAC is going to want to see details on how assignments are evaluated (e.g., what are the explicit requirements, how pass/fail allocated, are there grading rubrics, etc.). How is pass/fail for the course assigned? How does this grading scheme not foster complacency?
- Course policies – Exams and quizzes are listed, however none appear anywhere else in the syllabus. Should there be exams and quizzes? If not, please remove.