

FORMAT 1 - Revised following CNSM review

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	Biology & Wildlife	College/School	CNSM
Prepared by	Diane Wagner	Phone	474-5493
Email Contact	Diane.wagner@alaska.edu	Faculty Contact	Diane Wagner

1. ACTION DESIRED (CHECK ONE):	Trial Course	<input checked="" type="checkbox"/>	New Course	<input type="checkbox"/>
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2. COURSE IDENTIFICATION:	Dept	BIOL	Course #	194	No. of Credits	1
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Justify upper/lower division status & number of credits:	This course will serve as an introduction to faculty and to research and learning opportunities in the biological sciences at UAF. The course is intended to help students choose a concentration and a capstone area of study once they reach senior year.
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3. PROPOSED COURSE TITLE:	Biological Sciences Seminar
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4. To be CROSS LISTED? YES/NO	No	If yes, Dept:		Course #	
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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 #	
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How will the two course levels differ from each other? How will each be taught at the appropriate level?:	N/A
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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:	Every fall
	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)	Fall 2014
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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)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input checked="" type="checkbox"/> 6 weeks to full semester
OTHER FORMAT (specify)						
Mode of delivery (specify lecture, field trips, labs,	Lecture					

etc)

9. CONTACT HOURS PER WEEK:	<input type="text" value="1"/>	LECTURE hours/weeks	<input type="text"/>	LAB hours /week	<input type="text"/>	PRACTICUM hours /week
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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)	<input type="text"/>
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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)

BIOL 1XX Biological Sciences Seminar
 1 credit Offered Fall
 An introduction to research in the biological sciences conducted by faculty at UAF, including cell and molecular biology, physiology, ecology, and evolutionary biology. (1+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	<input type="text"/>	S = Social Sciences	<input type="text"/>
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Will this course be used to fulfill a requirement for the baccalaureate core? If YES, attach form.	YES:	<input type="text"/>	NO:	<input checked="" type="text" value="x"/>
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IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, Format 6	<input type="text"/>	W = Writing Intensive, Format 7	<input type="text"/>	X = Baccalaureate Core	<input type="text"/>
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11.A Is course content related to northern, arctic or circumpolar studies? If yes, a "snowflake" symbol will be added in the printed Catalog, and flagged in Banner.

YES	<input type="text"/>	NO	<input checked="" type="text" value="x"/>
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12. **COURSE REPEATABILITY:**

Is this course repeatable for credit?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	TIMES
If the course can be repeated for credit, what is the maximum number of credit hours that may be earned for this course?	<input type="checkbox"/>	CREDITS
If the course can be repeated with <u>variable</u> credit, what is the maximum number of credit hours that may be earned for this course?	<input type="checkbox"/>	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** None
 These will be required before the student is allowed to enroll in the course.

15. **SPECIAL RESTRICTIONS, CONDITIONS** None

16. **PROPOSED COURSE FEES** \$0
 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? No
 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.

The course will require classroom space, preferably in Murie Auditorium. The course will contribute a small amount to the workload of the coordinator and a negligible amount to the workloads of individual faculty contributors.

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 **Library collections are sufficient.**

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)

Only the Biology and Wildlife programs will be affected.

21. **POSITIVE AND NEGATIVE IMPACTS**

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

We anticipate that the course will lead to greater number of students pursuing research projects with individual faculty, as Individual Study, Research Experience in Biology (BIOL 490), URSA courses, or non-credit activities.

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.

The Biological Sciences BS degree now allows students to choose a concentration in a particular area of biology. Because many of the senior level biology courses useful in particular concentrations, including the capstone courses, have prerequisites, students who choose a concentration early will move most efficiently through the program. However, we anticipate that many students will enter UAF with a general interest in biology but lacking the background to choose an area of concentration. This freshman survey course will introduce students to a variety of subject areas within biology. Each week, several biology faculty will present a summary of their research questions, approaches, and study organisms. We hope that the course will encourage greater faculty-student interaction in the future.

Although the focus of the course is exposure to the variety of research topics and approaches in biology at UAF, a small amount of class time will also be devoted to coaching students about how to succeed as the biological sciences major.

APPROVALS: Add additional signature lines as needed. SEE ATTACHED SIGNATURES

	Date	
Signature, Chair, Program/Department of:		

	Date	
Signature, Chair, College/School Curriculum Council for:		

	Date	
Signature, Dean, College/School of:		

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)		

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

	Date	
Signature, Chair Faculty Senate Review Committee: __Curriculum Review __GAAC __Core Review __SADAC		

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

We anticipate that the course will lead to greater number of students pursuing research projects with individual faculty, as Individual Study, Research Experience in Biology (BIOL 490), URSA courses, or non-credit activities.

JUSTIFICATION FOR ACTION REQUESTED


Section revised -- see previous page.

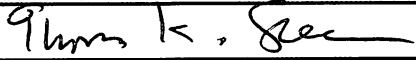
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

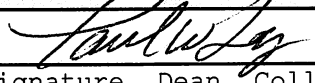
The Biological Sciences BS degree now allows students to choose a concentration in a particular area of biology. Because many of the senior level biology courses useful in particular concentrations, including the capstone courses, have prerequisites, students who choose a concentration early will move most efficiently through the program. However, we anticipate that many students will enter UAF with a general interest in biology but lacking the background to choose an area of concentration. This freshman survey course will introduce students to a variety of subject areas within biology. Each week, several biology faculty will present a summary of their research questions, approaches, and study organisms.

As in the more content-focused first-year experience seminars on campus, we will also use the course as a vehicle to build connections between students and faculty, and to improve student understanding of program requirements, academic resources, and the student code of conduct.

APPROVALS: Add additional signature lines as needed.

 Date 1/9/2014
Signature, Chair, Program/Department of: Biology + Wildlife

 Date 2-17-14
Signature, Chair, College/School Curriculum Council for: John K. Bell CNSM

 Date 2/17/14
Signature, Dean, College/School of: _____

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

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

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

Signature, Chair Faculty Senate Review Committee: Curriculum Review GAAC
 Core Review SADAC

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

	Date	
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

BIOL 194
Biological Sciences Seminar
Fall 2014, 1 credit
Prerequisites: none
Time:
Location: Murie Auditorium

Course Description

This course introduces students to current areas of research in the biological sciences through a series of short lectures delivered by multiple members of biology faculty on their research interests, approaches, and study organisms. The course is intended for new biology majors and those considering studying biology at UAF.

Catalog description: An introduction to research in the biological sciences conducted by faculty at UAF, including cell and molecular biology, physiology, ecology, and evolutionary biology.

Course Coordinator

Diane Wagner

Office hours xxx in 101D Murie Bldg

diane.wagner@alaska.edu

Course Goals and Learning Objectives

The broad goal of the course is to familiarize students with the breadth of biological science in general, and the types of biological research being conducted on the UAF campus.

Specifically, upon completion of the course, students will:

- Learn about the breadth of modern biological research topics, approaches, and organisms studied at UAF
- Become familiar with particular faculty members, including their research interests and approaches, the courses they teach, and how to contact them
- Be better prepared to choose a degree path, elective courses, and a capstone research experience within the biological sciences degree

Instructional Methods

The course will consist of a series of short, face-to-face presentations by faculty with occasional periods of discussion during class. There will generally be two presentations per class period. During each introductory lecture, the faculty member will summarize the type of research questions they pursue, the types of opportunities for undergraduate research they offer, the courses they teach, and the best way to contact them.

Course Policies

Students are expected to attend all lectures, to arrive on time, and to remain seated until the end of class. At times, faculty will provide readings to help students prepare for class. Students are encouraged to take notes, as a written summary of each topic will be required (see Evaluation). Any readings will be posted on Blackboard with email

notification of their posting.

A student may receive permission to miss a class without penalty due to illness or family emergency by contacting the course coordinator by email in advance of the class. A student requesting excused absence should be prepared to provide verification that the absence was necessary.

Evaluation

Grading will be pass/fail. To earn a passing grade, a student must earn at least 75% of the points available.

There will be 14 course meeting over the semester, most of which will include two separate short presentations by faculty. Each class meeting is worth a maximum of 10 points, for a total of 140 points total. To earn points for a class, a student must both attend class and submit a brief written assignment by 5pm Wed of the following week. The written assignment will consist of (1) a summary of each research topic presented (at least one paragraph per topic) and (2) at least one question or issue about which the student would like to know more for each research topic presented. Partial points will be awarded for assignments that are incomplete or poorly prepared. **Note that students who miss more than three class meetings will not earn a passing grade for the class.**

Disabilities Services

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. The course coordinator will work with the Office of Disability Services (208 Whitaker, 474-5655) to provide reasonable accommodation to students with disabilities.

Course Schedule

Week	Date	Speakers	Topic
1	5 Sep	Diane Wagner	The importance of research in the biology undergraduate curriculum
		Kristin O'Brien	Cell biology and adaptation to cold temperatures
2	12 Sep	Andrea Ferrante	The immune system
		Andrej Podlutzky	Biology of cancer
3	19 Sep	Diane O'Brien	Nutrition and physiology
		Barbara Taylor	Toxins, nutraceuticals, and neural function; introduction to URSA
4	26 Sep	Jack Chen	Virus-host cell interactions and emerging pathogens
		Robert Coker	Human nutrition and exercise physiology
5	3 Oct	Perry Barboza	Wildlife nutrition and physiological ecology
		Andrea Bersamin	Human nutrition and epidemiology
6	10 Oct	Diane Wagner	Navigating the biological sciences curriculum
		Carolyn Chapin	
7	17 Oct	Pat Doak	Insect Ecology
		Knut Kielland	Plant-animal interactions
8	24 Oct	Christa Mulder	Community ecology and biological invasions
		Mary Beth Leigh	Microbial ecology and bioremediation
9	31 Oct	Diane Wagner	Plant defenses to herbivory
		Richard Boone	Global change and ecosystem ecology
10	7 Nov	Roger Ruess	Plant ecology and ecosystems; the boreal forest
		Marion (Donie) Bret-Harte	Plant physiology and ecosystem ecology
11	14 Nov	Tamara Harms	Ecosystem ecology at land-water interfaces
		Jeremy (Jay) Jones	Stream ecosystems
12	21 Nov	Link Olson	Evolution and biogeography of mammals
		Steffi Ickert-Bond	Evolution and biogeography of plants
13	5 Dec	Kevin Winker	Evolution and ecology of birds
		Derek Sikes	Evolution and conservation of insects
14	12 Dec	Diana Wolf	Plant evolutionary genetics
		Naoki Takebayashi	Evolution of plant reproductive biology

BIOL 194 "Biological Sciences Seminar"

Comments from CNSM Committee

From Tom Green, Chair

I have summarized the comments from the committee and included some of my own. More specific comments are given below. Overall the response is positive to the course, but there are some concerns.

1. Consider removing the "snowflake" identifier since not all B&W research faculty focus on northern topics. **Snowflake has been removed.**
2. Consider adding pre-requisites or co- requisite to the course, especially BIOL 115, since the course is intended for new biology majors. The concern is that those students with minimum biology background will not derive much benefit from the course. Related to this, students are expected to view faculty webpages and read research papers. From my perspective, I doubt students with very little or no background in biology will derive much from the papers. I could be wrong about this. I supposed the outcome will depend on what level the topics are introduced in the lectures in combination with the student's background. **While it is true that our primary target is new biological science majors, we would rather have the open to all students interested in biology and biological research, as a way to engage the uncommitted as well as to focus the interests of committed majors. The stakes are low since the course is pass/fail and the primary requirement is that students attend, so the risk is low as well. The course coordinator will work with the presenters to ensure that any readings assigned are appropriate. As you point out, scientific papers might be too specialized at this stage, but publications in Science News, Scientific American, and the popular press might be very useful and engaging. I anticipate that only a subset of presenters will ask students to do advance readings.**
3. Students will be encouraged to ask questions according the syllabus. We suggest that students be asked to write a question or two and submit to the speaker prior to attending the lecture. These questions can be used if needed to drive the discussion and as a metric for gauging participation by the student. The concern is that students are required only to attend the seminars, but nothing more. Some students are very reticent about asking questions, especially if they have insufficient background, which might be the case given that there is no pre- or co-requisite. Perhaps the students could be asked to write a short summary paragraph of what they gained from the lectures and submit it. **These are good suggestions that have been incorporated into the syllabus.**
4. Other minor corrections.

#18, edit: "coordinator a negligible" should likely be "coordinator and a negligible Syllabus; Instructional Methods, edit: "a series short" should likely be "a series of short".

Fixed.

Reviewer 1

I like this proposal, but have a comment. I don't see a clear criteria for what the students must do except attend the seminars. In the GEOS department, we have something like this for the grad students and they are expected to write questions beforehand for each speaker, based on the speakers research foci. As one of the speakers for this course, I have found that those predetermined questions are very effective in getting discussion going after the talk, when one is faced with students who won't speak up and ask questions! Usually, my experience has been that you get a blank wall of silence from the students, at which point I grab the sheet full of questions they

wrote down and start answering them myself. Without some metric, I don't think it will be possible to gauge whether the students learn much from the seminars.

Agreed – student questions may be problematic. In addition to student reticence, there is the high likelihood that many faculty presentations will run long (especially for the first course offering) and thereby preclude Q and A. In the revision I have asked students to provide a written summary of each presentation and to pose at least one question or issue about each presentation that they'd like to know more about. This will encourage reflection from students, and I will share the student responses with the relevant faculty.

Reviewer 2

a) I think that the attachment of the "snowflake" signifier (northern, arctic, circumpolar) is a bit of a stretch (rather than being directly related to northern studies, the course is about the research conducted by the B&W faculty, which in many -- but not all -- cases does encompass northern topics), and I would respectfully request that the B&W faculty reconsider the request for that signifier, on the grounds that it is in their best interest that that signifier not become diluted.

Addressed above.

b) I am surprised that there are NO prerequisites for this course, as that seems to imply that a student could develop a meaningful appreciation of the research done by the UAF faculty in the biological sciences, and because the course is "intended to help students choose a concentration and a capstone area of study once they reach senior year." Coupled with the fact that the course cannot be repeated, there seems to be a real chance of developing a cohort of students who do not derive the full benefit of the course. Since the course is, as per the justification statement, aimed to be a freshman survey course, it seems desirable that it have at very least a co-requisite of the first part of the biology survey sequence, BIOL 115.

Part of the utility of the course will be to get (or keep) students engaged and excited about biology and about their future in the Biological Sciences major even if they cannot take BIOL 115 freshman semester, as is the case with many students who lack the 115 prerequisites.

c) #18, edit: "coordinator a negligible" should likely be "coordinator and a negligible" Fixed.

d) The justification states that this course will also attempt to undertake many of the functions as a "first-year experience" (FYE) seminar. However, it is not clear that without the strong content-focus that characterizes successful FYE courses here and elsewhere, that functionality will be realized. Based on the syllabus, those functions have only a weak emphasis, belying the intents set out in the second paragraph of the justification.

A fair criticism. We were trying to do too much at once, at least with the first trial offering. I removed the language comparing this seminar to a first year experience and focus on exposure to biological research.

e)

f) I predict that, given the already tight time constraint on each faculty's presentation, there will be very little discussion.

Agreed.

Overall: fairly straightforward corrections will make this proposal acceptable, although there are several issues which I ask the B&W faculty to give due consideration.