

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 Division	College/School	School of Fish and Ocean Sciences
Prepared by	Brennan Smith	Phone	907-486-1531
Email Contact	bmsmith10@alaska.edu	Faculty Contact	Brennan Smith

1. ACTION DESIRED
(CHECK ONE):

Trial Course	<input checked="" type="checkbox"/>	New Course	<input type="checkbox"/>
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2. COURSE IDENTIFICATION:

Dept	FISH	Course #	F394	No. of Credits	3
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Justify upper/lower division status & number of credits:	This course is designed for the BS Fisheries students pursuing a career in Fisheries, Fish management, and seafood. Due to the complexity of this material covered in this course, the course should be offered to students farther along in the degree programs. BIO 116X and CHEM 106X or the equivalent are required to take this course. For these reasons it would be unadvisable for students in their first or second year of undergraduate education to complete this course.
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3. PROPOSED COURSE TITLE: Fish Nutrition

4. To be CROSS LISTED? YES/NO

<input type="checkbox"/> YES	<input checked="" type="checkbox"/> 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

<input type="checkbox"/> YES	<input checked="" type="checkbox"/> 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?:

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:

	Fall Odd-numbered Year
	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)

	AY 2014-2015
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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, etc)	Lecture					

9. CONTACT HOURS PER WEEK:

<input type="checkbox"/> 3	LECTURE hours/weeks	<input type="checkbox"/>	LAB hours /week	<input type="checkbox"/>	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)	
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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)

FISH F394 Fish Nutrition

3 Credits Offered Fall odd-numbered years

Introduction of the concepts and principles of nutrition; biochemical pathways and processes for nutrient utilization; basics of nutrients and their digestion and metabolism; fundamentals of nutrition for fish. *Prerequisites: BIO 116X; CHEM 106X; or permission of instructor.* 3 credits (3 + 0).

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

Will this course be used to fulfill a requirement for the baccalaureate core? If YES, attach form.	YES:	<input type="checkbox"/>	NO:	<input checked="" type="checkbox"/>
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IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, Format 6	<input type="checkbox"/>	W = Writing Intensive, Format 7	<input type="checkbox"/>	X = Baccalaureate Core	<input type="checkbox"/>
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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="checkbox"/>	NO	<input checked="" type="checkbox"/>
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12. COURSE REPEATABILITY:

Is this course repeatable for credit?	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
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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="text"/>	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="text"/>	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="text"/>	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:	<input checked="" type="checkbox"/>	PASS/FAIL:	<input type="checkbox"/>
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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

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 will be part of Dr. Brennan Smith annual workload. This course will require access to a room with video conference equipment. Blackboard will also be used to distribute course deliverables.

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

Contact Date to Ms. Karen Jensen: July 26, 2013 by e-mail; Resolution Date: July 29, 2013 The library will have the resources needed for the course.

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)

B.S. Degree in Fisheries, Fisheries Division, School of Fisheries and Ocean Sciences. Nutrition courses are offered in other programs. Instructors have been contacted and assured the lack of overlap and the need for the course. The proposed course may also attract Biology and wildlife students from College of Natural Science & Mathematics as well as students from the College of Natural Science & Mathematics. This could conflict with schedules of courses from other academic departments. Specifically, Dr. Perry Barboza, instructor of the BIOL 459 course was contacted to determine how this course would affect Dr. Barboza's Wildlife Nutrition Course (BIOL 459) in terms of offering times and content overlap. Dr. Barboza was very enthusiastic about the creation of the course and verbally stated a real need. An email from Perry is below:

Brennan:

Although there is some overlap between your proposed course and Wildlife Nutrition, the courses differ substantially in scope (3 credit lecture vs. 4 credit lab and lecture), level (300 vs 400), focus (individual animal vs. population), and audience (fisheries vs. general biology and wildlife management).

Good luck with the first offering.

Best Regards,
Perry

21. POSITIVE AND NEGATIVE IMPACTS

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

This course will positively impact the B.S. Fisheries Program. The proposed course is targeted at the biochemical and practical application of nutrition sciences in fisheries. Currently, there is no nutrition course targeted at fisheries students. This course would be beneficial to students by providing a needed curriculum in the understanding of how and why nutritional conditions (feed, environmental, and physiology) effect the overall wellbeing of fish, This course would also benefit the fisheries division by providing a 300 level course in the fall semester of odd number years. Currently, 300 level fisheries courses are lacking in the fall semester. Instructors from similar courses in other academic departments were contacted. Through conversations with these instructors it was determined that the content of this

course is unique from other courses offered through the UAF. For this reason, there are no major negative impacts foreseen in the creation of this course to courses from other academic departments.


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.

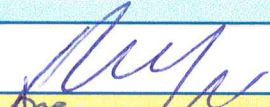
The objective of the B.S. degree in fisheries is to “prepare students for careers studying the biology and ecology of fishes, managing fish stocks, conducting research and more.” Currently, the students in the B.S. Fisheries Program are not being offered a course on nutrition. Nutrition science is a critical discipline for understanding the cause effect relationships between fish health and fishery management and assessment. For example, environmental, genetics, reproductive cycles, feed, and various stresses affect the overall health and condition of fish as individuals and as fish populations by effecting how nutrients are metabolized. Other courses offered focus on environment, stock assessment, fish reproduction, or fisheries management. While this course does not cover this material in any kind of detail, it does focus on understanding the biochemical aspects of metabolism and how external factors (covered in other courses) influence metabolic pathways and fish health. Understanding these relationships, will better prepare students for careers studying the biology and ecology of fishes, managing fish stocks, conducting research and more.

By taking this course, the students will obtain a more complete knowledge of fisheries science.

APPROVALS: Add additional signature lines as needed.

	Date	09/03/13
Signature, Chair, Program/Department of:	Fisheries Division	

	Date	09/03/13
Signature, Chair, College/School Curriculum Council for:	SFOS Council Committee	

	Date	Sept 4, 2013
Signature, Dean, College/School of:	SFD	

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	
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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:

[Faint handwritten signatures and dates are visible in this area, including names like "M. J. ...", "D. ...", and dates like "12/3/2015".]

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

**FISH F394 Fish Nutrition
Fall 2014**

Instructor

Dr. Brennan M. Smith, Assistant Professor
Kodiak Seafood and Marine Science Center
118 Trident Way
Kodiak AK 99615
Tel: 907-486-1531
E-mail: bmsmith10@alaska.edu

Office Hours

Monday - Friday: 9:30 - 11:30 a.m.

Meeting Times

1:00 – 2:30 p.m., Tu - Th, 225 Kodiak Seafood and Marine
Science Center and by video conference

Course Reading Materials

A majority of the course readings will be in the form of power point lectures. These lectures will be comprised of information taken from various optional reading sources. Optional text books/readings will be from:

Fundamentals of Biochemistry: Life at the Molecular Level, 4th Edition Donald Voet, Judith G. Voet, Charlotte W. Pratt John Wiley & Sons, Inc., 2013, ISBN: 978-0470-54784-7

National Research Council (NRC): Nutrient requirements of fish and shrimp. The National Academies Press, Washington, D.C., 2011, ISBN: 978-0-309-16338-5

Course Description

Introduction of the concepts and principles of nutrition; biochemical pathways and processes for nutrient utilization; basics of nutrients and their digestion and metabolism; fundamentals of fish nutrition. Prerequisites: BIO 116X; CHEM 106X; or permission of instructor. 3 credits (3 + 0).

Instructional Methods

Course material will be presented in 90 min lectures as power point presentations and supplemental handouts (journal articles, diagrams, etc...). Course material will be put online prior to each lecture. It is the student's responsibility to bring his or her materials to class.

Course Goals and Learning Outcomes

1. Develop a working knowledge of the basic principles of nutrition.
2. Gain an understanding of nutrient digestion, metabolic pathways, and nutrient utilization.
3. Apply knowledge of nutrition, digestion, metabolism, and nutrient utilization in practical/real-world scenarios.
4. To sharpen critical thinking, written and oral communication, and professional skills relative to nutrition and science issues.

Statement for Academic Accommodations for Students with Disabilities

Any student with a disability who needs a classroom accommodation, access to technology or other academic assistance in this course should contact the instructor immediately as well as the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655). The instructor will work with the Office of Disabilities Services to provide reasonable accommodation to students with disabilities.

Classroom Conduct

All student activities in this course are governed by the Student Code of Conduct as outlined in the UAF catalog.

All assignments submitted are to be entirely your own work, unless you receive specific instructions to the contrary. All aspects of your course work are covered by the Honor system. Any suspected violations (e.g. cheating, plagiarism) will be promptly reported and appropriate action(s) will be taken. Additionally, you will receive a zero for that assignment or exam; two such violations and you will automatically fail this course. Honesty in your academic work will develop into professional integrity. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

Homework Assignments

A total of three homework assignments will be given. These assignments will vary, but at least one assignment will contain two parts: A two page review of a peer reviewed journal article assigned by the instructor. The written portion of this exercise will be worth 25 points. The second portion of this exercise is a brief oral presentation that will be presented in class and will be worth 25 points. Other homework assignments will equal 25 points each. Assignment due dates will be assigned during the "Homework assigned/presentation guidelines" lecture.

Quizzes

A total of ten quizzes will be randomly given over the course of the semester. Each quiz is worth a total of 10 points. Advanced notice of quizzes will be given in most instances.

Exams

Three lecture exams (100 points each) and the final exam (150 points) will be administered during the semester. Lecture exams are tentatively scheduled for Oct 07 and Oct 23, and Nov 13. You will be allowed 90 minutes to complete these exams. The final exam will be given during the two-hour time period designated by the university.

Grading

Grades will be assigned using a plus-minus system based on the following scale:

- A > 93
- A- 90-92.9
- B+ 87-89.9
- B 83-86.9
- B- 80-82.9
- C+ 77-79.9
- C 70-76.9
- C- 65-69.9

If the class average falls below 75%, this scale will be adjusted accordingly. All assignments are due at the beginning of the indicated class period. Late assignments will be docked 10% of the total exercise point value for each day late and missed exams or class discussion periods will be assigned a zero score. Grades reduction due to late assignments or academic dishonesty will **NOT** be factored into adjustment of the grading scale. If you cannot take an exam, turn in an assignment, or attend a class discussion period for a legitimate reason, it is your responsibility to contact the instructor prior to the date in question in order not to receive a penalty. With the exception of emergencies, exam make-up or late assignment requests will only be honored if a legitimate reason is provided to the instructor in writing at least one week prior to that date. Point and percentage values for each evaluation component are as follows:

<u>Grading</u>	<u>points</u>
Quizzes	100
Homework and Presentation	100
Regular Exams (three)	300
Final Exams	150
Total Points	650

LECTURE OUTLINE

<u>Topic</u>	<u>Date</u>	<u>Readings</u>
Introduction to nutrients.....	Sep 04	Course notes
Introduction to nutrients (cont).....	Sep 09	Course notes
Comparative digestive physiology	Sep 11	Course notes NRC Chap. 3
Comparative digestive physiology (cont).....	Sep 16	Course notes NRC Chap. 3
Components of Feed		
Protein.....	Sep 18	Course notes Voet Chap. 4, 5 NRC Chap. 5

Lipid.....	Sep 23	Course notes Voet Chap. 9 NRC Chap. 6
Carbohydrate.....	Sep 25	Course notes Voet Chap. 8 NRC Chap. 7
Ash (Min. & Vit.)	Sep 30	Course notes
Exam review	Oct 02	
Exam	Oct 07	
Homework assigned/presentation guidelines.....	Oct 09	
Components of Feed (cont)		
Analysis of.....	Oct 14	Course notes NRC Chap. 2
Metabolism		NRC Chap. 4
Protein.....	Oct 16	Course notes Voet Chap. 21 NRC Chap. 5
Cholesterol and Lipid/ exam review	Oct 21	Course notes Voet Chap. 20 NRC Chap. 6
Exam	Oct 23	
Energy (ATP).....	Oct 28	Course notes Voet Chap. 14 NRC Chap. 4
Energy (ATP pathways).....	Oct 30	Course notes Voet Chap.16, 17 18 NRC Chap. 4
Energy (ATP pathways cont.).....	Nov 04	Course notes Voet Chap.16, 17 18 NRC Chap. 4
Energy (ATP turnover).....	Nov 06	Course notes Voet Chap.16, 17 18 NRC Chap. 4
Exam review	Nov 11	
Exam	Nov 13	
Nutrition and exercise/stress.....	Nov 18	Course notes NRC Chap. 4
Reproduction and nutrition.....	Nov 20	Course notes

Fish digestion.....	Nov 25	NRC Chap. 4 Course notes NRC Chap. 3
Thanks Giving.....	Nov 27	
Fish Diets.....	Nov 25	Course notes NRC Chap. 2, 4
Student presentations.....	Dec 09	
Presentations/ Final Review	Dec 11	

Curriculum Committee SFOS

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

21 August 2013

New Course

Course Number: FISH 330

Course Title: Animal Nutrition

Instructor: Smith

First Time of Offering: Yes

General Recommendations:

The Committee recommends changing this course from a New Course to a Trial Course in order to evaluate the enrollment demand for this course as an elective in Fisheries degree programs. For both the form and syllabus, there were a number of typographical errors that need to be resolved for the final submission.

Faculty Senate Form:

Clarify and Address the following:

- Please change the course from a New Course to a Trial Course option.
- The course title in Section 3 does not match the course title in Section 10. Please resolve.
- Frequency of Offering – Fisheries electives are offered on an every other year basis; as a result, the Committee recommends a similar course offering frequency as having too low of enrollment by offering the course annually would lead to the course not being offered at all.
- For contact hours per week, please remove “2 hours for finals”. It is not necessary to list that as it is mandatory.
- For Catalog Description, it is unclear what you are referring to by “contrasted with humans and agricultural species”. Contrasting fish with people and cows/sheep/swine? If so, why?
- For Estimated Impact, remove “and will be used to meet the requirements of Fisheries unit criteria”.
- For Library Collections, it is great that you contacted the library. However, you must also state the outcome of that contact – do they have the library resources available that are needed for your course?
- Impacts – There is a course BIOL 459 Wildlife Nutrition that could be similar to your course. You will need to contact the instructor to make sure that there is not overlap with your course and that course. Will this course be applicable for students in other degree programs? If so, which ones?

- Positive and Negative Impacts – If other programs could be impacted (e.g., Biology – BIOL 459), need to state what those impacts would be to those programs. Also, several typographical errors in this section.
- Justification – disciple should be discipline.

Syllabus:

- Be sure to follow the syllabus checklist and address all required syllabus components per the last page of the Faculty Senate form.
- For quizzes, remove sentence three and add the word “randomly” to sentence one between “be” and “given”.
- Just so that you are aware, if you have students at distant locations, they keep the exams. It is hard to enforce that policy when you have to send exams electronically.
- What are the course readings (what do the course notes contain)? It would be hard to justify a 300-level course without any readings outside of course notes.