Due to Math Alignment Project, course number will be F251S.

83-UNC
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.

RECEIVED
OCT 30 2014
Dean's Office
College of Natural Science & Mathematics

TRIAL COURSE OR NEW COURSE PROPOSAL

SUBMITTED BY:			
Department	**Mathematics and Statistics**	**College/School**	CNSM

Prepared by	**Latrice Bowman**	**Phone**	**474-5427**
Email Contact	**lnbowman@alaska.edu**	**Faculty Contact**	**Latrice Bowman**

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

2. COURSE IDENTIFICATION:	Dept	**MATH**	Course #	F251S ~~X001S~~	No. of Credits	**1**

Justify upper/lower division status & number of credits:	**Course is a freshman level course to be an additional help with placement and core level mathematics courses.**

3. PROPOSED COURSE TITLE:	**Calculus I Skills Workshop**

4. To be CROSS LISTED? *YES/NO*	N	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*	N	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:	**Every Fall, Spring, and Summer**

Governance
11/14/14 TLP

	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 ~~Summer~~ 2015

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*	X	*6 weeks to full semester*

OTHER FORMAT (specify)	

Mode of delivery (specify lecture, field trips, labs, etc)	**Lectures with group work and discussions**

9. CONTACT HOURS PER WEEK:	.5	LECTURE hours/weeks	1.5	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)	**.5 lecture hrs/wk=7hrs =420 min =0.5 cr** **1.5 lab (science) hrs/wk=21hrs=1260 min=0.5cr**

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)

MATH F~~200S~~ XXXX Calculus I Skills Workshop
1 Credit

Course number will be F251S.

Directed study of topics in MATH 200X, emphasis will be placed on problem solving and mathematical communication. Also included will be instruction on how to be successful in Calculus I and mathematics-based courses. Graded Pass/Fail. Note: Credit may be earned for taking MATH 200P or MATH 200S, but not for both. Prerequisites: previous grade below C- or previous W in MATH 200X or placement into MATH 200S or departmental recommendation. This course requires concurrent enrollment in MATH 200X. (~~.5+.5~~) (.5 + 1)

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 "snowflake" symbol will be added in the printed Catalog, and flagged in Banner.

YES		NO	X

12. COURSE REPEATABILITY:

Is this course repeatable for credit?	**YES**		NO	X

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

How many times may the course be repeated for credit?		**TIMES**

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

RESTRICTIONS ON ENROLLMENT (if any)

14. PREREQUISITES	**Previous grade below C- or previous W in MATH 200X or placement into MATH 200S or departmental recommendation. This course requires concurrent enrollment in MATH 200X.**

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

15. SPECIAL RESTRICTIONS, CONDITIONS	**Students who previously earned a grade below a C- or who previously withdrew from MATH 200X or students with low placement into MATH 200X who have not passed MATH 200P are required to take MATH 200S concurrently with MATH 200X.**

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? **Yes/No**	**Y**

If yes, give semester, year, course #, etc.:	MATH 193B Spring 2015

18. ESTIMATED IMPACT

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

This course will require the use of a classroom twice a week and it will require a Blackboard course shell. All other materials will come out of the DMS Math Bridge budget.

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	X	Yes			N/A

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)

This will mostly impact DMS, but peripherally it will impact any program that requires core mathematics.

21. POSITIVE AND NEGATIVE IMPACTS

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

Positive-
Students will gain the knowledge and skills needed to succeed in mathematics;
Students will be less likely to repeat a single math course more than once;
Students will be able to move to their program work more prepared;
Negative-
Problematic for other departments in registering their students for core math courses;
This will require more diligent advising;

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.

Many core MATH courses have low pass rate and many of the students who fail to do well in these courses have poor study habits. These courses tend to be gateway courses for BS students. MATH 200S is designed (based on the current Math Bridge Program) to help students who have previously failed MATH 200X or students who have low placement into MATH 200X and who could not/did not take MATH 200P, gain better study habits as well as guide them in success strategies for completing college level mathematics courses.

APPROVALS: Add additional signature lines as needed.

John C Rhode — Date 10/30/14

Signature, Chair, Program/Department of: Mathematics & Statistics

Date 11-13-14

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

Date 11/13/14

Signature, Dean, College/School of: CNSM

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

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:	

Due to Math Alignment Project, course number will be F251S.

Math 200S: Calculus I Skills Workshop

1 credit

Instructor: Latrice Bowman
Email: lnbowman@alaska.edu Office: Chapman 301E Office Phone: (907) 474-5427
Office Hours: TBA. You may also set up an appointment.

Class Times: (EXAMPLE) T GRUE 301 11:30am-12:30pm and W GRUE 310 11:45am-12:45pm

Prerequisite: Previous grade below C- or previous W in MATH 200X or placement into MATH 200S or departmental recommendation. This course requires concurrent enrollment in MATH 200X.

Text: Calculus I 6th edition by Stewart, Redlin, and Watson. ISBN: 9780840068071 or students may purchase custom edition of text ISBN: 9781133066323. (This is the text being used in your Math 200X course)

Materials: In addition to the course text, students will also need Internet access, a Blackboard account, a UAF email, and paper and pencil. In addition to the above, each student will need to complete the MATH 200S Contract.

Course Description:
Directed study of topics in MATH 200X. Emphasis will be placed on problem solving and mathematical communication. Also included will be instruction on how to be successful in Calculus I and mathematics-based courses.

Course Goals:
The main purpose of this course is to help students form good study habits and understand how to develop mathematical understanding. We will cover material needed to learn and understand Calculus I, (this course will include the content of MATH 200X and aid students in understanding this material). Students will cover limits, continuity, tangents, derivatives of functions including product, quotient, and chain rules, and the mean value theorem. Students will apply derivatives to problem solve. Students will learn about integration and methods for finding integrals. Students will recognize that the structure of this course emphasizes successful study strategies and well as mathematical communication.

Student Learning Outcomes:

- Graph functions and interpret graphs (including polynomial, rational, exponential, logarithmic, and trigonometric functions)
- Move between numerical, graphical and algebraic representations of functions
- Understand the definition of the derivative
- Use properties and techniques to find derivatives
- Use derivatives to analyze functions
- Use derivative concepts to solve applications
- Formulate methods for studying and reviewing mathematics

Evaluation/Grading:
This course is graded Pass/Fail.
To receive a passing grade a student must satisfy the following:

- attend at least 27 of the 30 hours that this course meets
- Must actively participate in the class by contributing to discussions, completing assigned work, and contributing to group activities
- Must submit all bi-weekly grade and attendance checks
- Must be enrolled concurrently in their MATH 200X course

Instructional Methods:
This course is designed to help students succeed in their core MATH 200X course. In MATH 200S students will spend the first 30 minutes of each week discussing study skills and student success strategies for mathematics. The sessions will include both discussion and hands-on activities. The remaining 90 minutes of the week will be group course work to further understand topics from MATH 200X. All coursework will be available on Blackboard and students will be able to view completion progress on Blackboard.

Tentative Course Schedule:
Every Wednesday is a group work day for this course. Tuesdays will be part study skill discussion/ activities and part group work. You should come to class prepared to work individually as well as in groups.

Date	Tuesday Study Skill Topics
Week 1	No classes this week
Week 2	Introduction, Materials, Mastering Math Skills
Week 3	Math Resources and Your Grade
Week 4	The Syllabus and your Instructor
Week 5	Study Partners and Learning Math
Week 6	Class Attendance and the Learning Cycle
Week 7	Homework, Studying, Reviewing
Week 8	Testing
Week 9	New Material and Reading the Text
Week 10	Time Management and Seeking Assistance
Week 11	Taking Notes and When to use a calculator
Week 12	Practice and Evaluating Study Habits
Week 13	Learning Formulas and Definitions
Week 14	Mathematical Applications
Week 15	Success in Mathematics

Course Policies:
Students are expected to attend class and participate daily. Students must arrive on time and are allowed to have at most 3 absences. Students will need to be able to work in groups and are strongly encouraged to ask questions. Students should be prepared to participate in class discussions. This course requires concurrent enrollment in MATH 200X. Students who fail to participate or attend will be dropped from both courses.

Support Services:
The Math and Stat Lab is located in CHAP 305 and is staffed by Math Graduate students and upper-division Math students. This lab operates on a walk-in basis and schedules are posted that provide tutor times. The Math and Stat Lab also offers one-on-one tutoring by appointment. Students will be asked to set up appointments at least 48 hours in advance to meet with a tutor.

SSS (Student Support Services) provides one-on-one tutoring to students who satisfy the requirements

of the program. In addition to math tutoring SSS provides, advising, all core subject tutoring, laptop rentals and some other services.

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

Department of Mathematics and Statistics

MATH200S Just-in-Time Contract

Calculus I Skills Workshop is a 1-credit pass/fail course designed to help students succeed in MATH 200X. This course will help students master MATH 200X content, improve study habits and enable students to do well in their university math courses.

Name_____ UAF Student ID_____

Day Phone_____ Email_____

Courses:

XXXXX MATH F200X-FXX Calculus I 4 Credits

XXXXX MATH F200S-F01 Calculus I Skills Workshop 1 Credit

I comprehend that my enrollment in MATH 200X is conditional upon my concurrent enrollment in MATH 200S.

I acknowledge that in order to pass MATH 200S, I must

- attend at least 27 of the 30 hours that this course meets
- actively participate in the course by completing assignments and contributing to discussions
- complete biweekly grade check for my MATH 200S and Math 200X instructors
- maintain concurrent enrollment in MATH 200X

I understand that if I miss more than three of the required hours or do not actively participate in the course I may be withdrawn from the class. If I am withdrawn from MATH 200S, **I understand that I will be withdrawn from MATH 200X**. If I am withdrawn from these courses, I will lose the tuition I paid for the math courses, as outlined in the current school catalog. If I am on financial aid or have a scholarship, being withdrawn may negatively affect my status relative to any financial aid or scholarships and may make me ineligible for current or future awards. Financial aid recipients must maintain satisfactory academic progress as outlined in the *Satisfactory Academic Progress Statement*.

I am aware that the UAF Math Department has recognized electronic mail as the official means of communication, and that I may receive messages from my Math 200X instructor, my MATH 200S instructor or my MATH 200S leader via my UAF e-mail account. It is my responsibility to retrieve these messages from my official UAF e-mail account and to respond to them accordingly.

Student Signature_____ Date_____