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	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 #	~~161R~~ F122R R	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: Prep for Precalculus for Business

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 (offered in Wintermester, Maymester, and Summer)

Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) – or As Demand Warrants **RECEIVED**

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

~~Summer~~ 2015
Fall

OCT 3 0 2014

Dean's Office
College of Natural Science & Mathematics

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	X	2		3		4		5		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:	4.5	LECTURE hours/weeks	6	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)	4.5 lecture hrs/wk=9hrs =540 min =0.7 cr

Governance
11/14/14

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 F161R Prep for Precalculus for Business — Course number will be F122R (not "P") **1 Credit** **An intensive, individualized review of prerequisite topics needed in Precalculus for Business along with small group practice of related functions topics. Emphasis will be placed on problem solving and mathematical communication. Also included will be instruction on how to be successful in Precalculus for Business. Graded Pass/Fail Note: Credit may be earned for taking MATH 161P or MATH 161S, but not for both. Prerequisites: previous grade below C- or previous W in MATH 161X or placement into MATH 161P or departmental recommendation.** (x+x)(.7 + 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**]

14. PREREQUISITES	Previous grade below C- or previous W in MATH 161X, or placement into MATH 161P, or departmental recommendation

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 161X or students with low placement into MATH 161X, are required to pass this course prior to re-enrollment in MATH 161X OR they must take MATH 161S concurrently with MATH 161X.

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 193A Spring 2015, MATH 195P Summer 2011

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

This course will require the use of a computer lab for the two weeks that this course meets. It will also require a Blackboard course shell. All other resources will come out of the current 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		

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.*
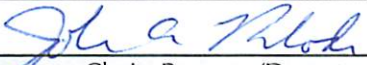
Positive-
Students will gain the knowledge and skills needed to succeed in mathematics;
Students will be less likely to repeat a single math course more than once;
Students will be able to move to their program work more prepared;
Negative-
Problematic for other departments in registering their students for core math courses;
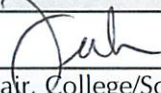This will require more diligent advising;
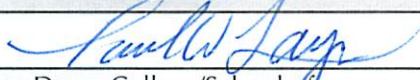
JUSTIFICATION FOR ACTION REQUESTED
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This 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 161P is designed (based on the current Math Bridge Program) to help students who have previously failed MATH 161X or students who have low placement into MATH 161X 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.

	Date	10/30/2014
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:		

Spring 2015
Math 161P: Prep for Precalculus for Business
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) Jan 5-Jan 9, Jan 12-14, 10am-12pm and 1pm-2pm

Prerequisites: Previous grade below C- or previous W MATH 161X or placement into MATH 161P or departmental recommendation.

Materials: In addition to the ALEKS access (provided) students will also need Internet access, a Blackboard account, a UAF email, and paper and pencil. There is no text needed for this course. In addition to the above, each student will need to complete the MATH 161P Contract.

Course Description:
An intensive, individualized review of mathematics needed for Precalculus for Business, along with small group practice of related math topics. Emphasis will be placed on problem solving. Also included will be instruction on how to be successful in college-level mathematics 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 background material needed to learn and understand Functions for Calculus. Students will receive an individualized review of concepts needed going into Functions for Calculus. Students will study different classifications of functions and for each classification we will look at definitions, algebraic formulation, numerical properties and graphical characterizations. Students will review basic terminology for business mathematics. Students will also study mathematical notation, methods for solving equations, and problem-solving of real-world applications. Students will recognize that the structure of this course emphasizes mastery of all course material.

Student Learning Outcomes:
- Solve linear, quadratic, rational, radical, absolute value, and polynomial equations
- Solve various inequalities
- Perform basic operations on rational and polynomial expressions, including factoring
- Find and graph solutions to one variable equations and inequalities
- Translate between numerical, graphical and algebraic representations of functions
- Understand terminology for business mathematics
- Use business related formulas such as cost, revenue, profit, demand, supply, etc.
- Use mathematical 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 18 of the 21 hours that this course meets
- actively participate in the course by completing assignments and contributing to discussions
- complete at least 85% of my course pie chart
- score at least 75% on the final assessment in ALEKS
- score at least 75% on the written final exam

Instructional Methods:
This course is designed to help students succeed in their core MATH 161X course. In MATH 161P students will spend the four hours working on study skills and student success strategies for mathematics. These sessions will be both discussion based and hands-on activities. The remaining class hours will be spent on tutor-assisted ALEKS work. All homework (outside of ALEKS) will be available on Blackboard and students will be able to view course completion progress on Blackboard.

Tentative Course Schedule:
Note: Lab days will consist of individual and group work

Date	Study Skill Topics
Day 1	Intro, Seeking assistance, Math Resources
Day 2	Lab Day
Day 3	The Syllabus, Your Grade, Math Tests
Day 4	Lab Day
Day 5	Class Attendance, the Learning Cycle, Studying and Time Management
Day 6	Lab Day
Day 7	Study Habits, Practice, Success in Mathematics
Day 8	Lab Day and Final

Course Policies:
Students are required to attend class and participate daily. Students must arrive on time and be prepared to work. Students are allowed to have at most 3 hours of absences with the understanding that they are required to complete all coursework. 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.

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. There are four computers in the lab that have the ALEKS plug-in installed. Computers are available on a first come basis. 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
MATH 161P Pre-Semester Prep Course Contract

Prep for PreCalculus for Business is a 1-credit pass/fail course designed to help students succeed in Math 161X. This course will help students master prerequisite skills, improve study habits and enable students to do well in their core math course.

Name_____   UAF Student ID_____

Day Phone_____   Email_____

Courses: XXXXX MATH F161P-F01 Prep for PreCalculus for Business 1 Credit

                    XXXXX MATH F161X-FXX PreCalculus for Business 3 Credits

I comprehend that I will be pre-registered in Math 161X and this registration is conditional upon my passing of MATH 161P.

I acknowledge that in order to pass MATH 161P, I must

- attend at least 18 of the 21 hours that this course meets
- actively participate in the course by completing assignments and contributing to discussions
- complete at least 85% of my course pie chart
- score at least 75% on the final assessment in ALEKS
- score at least 75% on the written final exam

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. I understand that I will lose the tuition I paid for MATH 161P, as outlined in the current school catalog. I understand that 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 161X instructor, my MATH 161P instructor or my MATH 161P 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.

Finally, I understand that if I am withdrawn or fail to pass this course then I will be required to take MATH 161S concurrently with MATH 161X.

Student Signature_____   Date_____