

UAF DMS Guidelines for

MATH 122X Essential Precalculus with Applications

1. General guidelines set by UAF; follow this link to the [UAF syllabus requirements](#)

2. GER Information (sample statement below):

This course is listed as a General Education Math Course as such this course is expected to meet the 4 general learning outcomes.

1. Build knowledge of human institutions, sociocultural processes, and the physical and natural works through the study of mathematics. Competence will be demonstrated for the foundational information in each subject area, its context and significance, and the methods used in advancing each.
2. Develop intellectual and practical skills across the curriculum, including inquiry and analysis, critical and creative thinking, problem solving, written and oral communication, information literacy, technological competence, and collaborative learning. Proficiency will be demonstrated across the curriculum through critical analysis of proffered information, well-reasoned solutions to problems or inferences drawn from evidence, effective written and oral communication, and satisfactory outcomes of group projects.
3. Acquire tools for effective civic engagement in local through global contexts, including ethical reasoning, intercultural competence, and knowledge of Alaska and Alaska issues. Facility will be demonstrated through analyses of issues including dimensions of ethics, human and cultural diversity, conflicts and interdependencies, globalization, and sustainability.
4. Integrate and apply learning, including synthesis and advanced accomplishment across general and specialized studies, adapting them to new settings, questions and responsibilities, and forming a foundation for lifelong learning. Preparation will be demonstrated through production of a creative or scholarly product that requires broad knowledge, appropriate technical proficiency, information collection, synthesis, interpretation, presentation and reflection.

3. Text: Mathematics with Applications in Business and Social Sciences by HAWKES Learning

#	·	·	-0.6 (r)
#	·	·	-1.6 (r)
#	·	·	-2.4 (r), 2.5 (o)
#	·	·	-3.9 (r)
#	·	·	-4.4 (r)
#	·	·	-5.4 (r)
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4. Online Homework System

This text comes with the HAWKES online homework which has a template for this course. This can be modified to adjust ordering of topics or due date and integrates with Canvas.

5. Timing of material

For each of the following, the minimum time spent on the sections is listed.

This is a suggested outline with three exams. Modifications can be made if giving four exams.

Section Topic Approx. timing

0.1 Real Numbers

½ -1 day

Math 122X Syllabus Guidelines

