

Math 252 – Fall 2018

Sec 1 - M/W 11:10 – 12:50 & Sec 2 - M/W 1:10 – 2:50 - Neill 5W
(Information given below is subject to change)

Instructor: Emily Sablan
Office: Neill Hall – 129
Office Hours: M/W 9:30 – 10:30 am or by appointment
E-mail: esablan@wsu.edu
WEB Page: learn.wsu.edu
Credits: 3
UCORE Category: QUAN
Prerequisites: MATH 251 with a C or better

REQUIRED MATERIALS:

Text: *Mathematical Reasoning for Elementary Teachers*, Seventh Edition – C. T. Long, D. W. DeTemple, and R.S. Millman (eBook available in MyMathLab)

Activities Booklet: *Problem Solving and Mathematical Reasoning, Part II: Math 252 Activities for the Classroom* – V. Adams, S. Cooper, D. DeTemple, and K. Vincent – (purchase at Cougar Copies)

MyMathLab Access Code: If you have an account from Math 251 you may use this same account, if not, the access code can be purchased online or at the Bookie.

COURSE OVERVIEW: This course utilizes an inquiry-based approach to study fundamental concepts in measurement, similarity, congruence, symmetry; empirical and theoretical probability, basic counting principles, factorials, combinations, permutations; measures of central tendency, variance, normal distributions; data collection, organization, analyzation, and presentation. The following learning outcomes are addressed in this course and will be evaluated by a combination of unit projects, homework assignments, in class group activities, and exam questions.

QUANTITATIVE REASONING SKILLS

At the end of this course, students should be able to:	Course Topics	Evaluation of Outcome
Explain information presented in mathematical forms.	Statistics unit (weeks 2 – 4)	Projects, homework, in class activities, and exams
Convert relevant information into various mathematical forms.	Statistics unit (weeks 2 – 4)	Projects, homework, in class activities, and exams
Understand and apply quantitative principles and methods in the solution of problems.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams
Make judgements and draw appropriate conclusions based on quantitative analysis of data, while recognizing the limits of this analysis.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams

Identify and evaluate assumptions in estimation, modeling, and data analysis.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10);	Projects, homework, in class activities, and exams
Express quantitative evidence in support of the argument or purpose of work.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams

CRITICAL AND CREATIVE THINKING

At the end of this course, students should be able to:	Course Topics	Evaluation of Outcome
Define analyze and solve problems.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams
Integrate and synthesize knowledge from multiple sources.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams
Assess the accuracy and validity of findings and conclusions.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams
Combine and synthesize existing ideas, images, or expertise in original ways.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams
Think, react, and work in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams

INFORMATION LITERACY

At the end of this course, students should be able to:	Course Topics	Evaluation of Outcome
Determine the extent and type of information needed.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams
Implement well – designed search strategies.	Probability unit (weeks 5 – 8)	Projects
Assess information effectively and efficiently from multiple sources.	Probability unit (weeks 5 – 8)	Projects
Assess credibility and applicability of information sources.	Probability unit (weeks 5 – 8)	Projects

Use information to accomplish a specific purpose.	Statistics unit (weeks 2 – 4); Probability unit (weeks 5 – 8); Geometry unit (weeks 9 – 10); Measurement unit (weeks 11- 13); Patterns (week 14); Congruence and Similarity (week 15)	Projects, homework, in class activities, and exams
Access and use information ethically and legally.	Probability unit (weeks 5 – 8)	Projects

CLASSROOM EXPECTATIONS:

BEHAVIOR: It is expected that students attend all scheduled class periods fully prepared to participate in discussions and show respect to classmates by not engaging in conduct that disrupts another student's learning experience. Your full attention is expected to be given to class activities and the ideas and input of your classmates. Math is not a spectator sport. You are expected to take responsibility for your own learning. As with anything else in life, in order to be successful, you must work diligently toward success.

ATTENDANCE: Attendance will be taken daily. You are encouraged to not miss more than two class periods during the semester. Additional absences will cause you to miss in-class projects and affect the learning experience of others by depriving them of your contributions and collaboration and will result in a reduction of your final grade. You are responsible for all material covered in this course regardless of attendance. If you find that you must miss class, there are two ways to arrange excused absences for this course.

1. If you have an emergency situation resulting in an extended absence (illness or family emergency resulting in an absence longer than one day), contact the Office of Student Affairs (335-4531) **immediately**. They will issue letters to all of your instructors to notify them of the absence.
2. Appropriate letters documenting excused university absences (such as participation in athletic events) will be accepted if arranged **before** missing class.

ELECTRONIC DEVICES: Computers, cell phones, tablets, and similar devices may not be used during class (unless used for class assignments). Recording of this class is not allowed in any form without direct permission from the instructor. Anyone caught ignoring this policy will be asked to leave the classroom at the discretion of the instructor.

WSU REASONABLE ACCOMODATION: Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations **MUST** be approved through the Access Center. Additional information is available on the Access Center website at <http://accesscenter.wsu.edu>

COURSE ASSIGNMENTS AND GRADING:

Your semester grade will be determined using the following approximate percentages.

10 MyMathLab Assignments	*Drop 2	80 pts	12%
Probability Unit Project		100 pts	15%
10 In Class Assignments	*Drop 2	120 pts	18%
2 Exams		200 pts	31%
Comprehensive Final		150 pts	23%
TOTAL		650 pts	~100%

***The lowest two scores will be dropped**

Your final grade for the course will be determined according to the following scale:

93-100%	A	83-86%	B	73-76%	C	60-66%	D
90-92%	A-	80-82%	B-	70-72%	C-	0-59%	F
87-89%	B+	77-79%	C+	67-69%	D+		

MYMATHLAB: The homework is through the on-line homework system within MyMathLab and will be due most Wednesdays throughout the semester. You will have unlimited attempts for each homework problem and will get immediate feedback regarding whether or not your answer is correct. I strongly recommend that you carefully correct any mistakes you make, in order for you to learn from them, and avoid them in the future (especially on exams). The two lowest scores will be dropped at the end of the semester. MyMathLab assignments cannot be made up after the due date.

IN-CLASS ASSIGNMENTS: These are in-class, hands-on, problem-solving sessions designed to increase understanding of course content through group collaboration. Most of the in – class activities are in the activity booklet. You are expected to bring your activity booklet with you to class each day. If you do not have your activity booklet on any given activity day, you will lose the points for that day’s activity. You will be assigned to a group and are expected to sit with your group whether or not we work on a group activity on any given day. Most of these assignments will be turned in and graded as a group effort. Groups will be reassigned throughout the semester. In – class assignments cannot be made up. In class activities are worth 15 points. Points will be given for participation and for accuracy. The two lowest scores will be dropped at the end of the semester.

UNIT PROJECT: There will be one unit project assigned in this course. Limited class time will be given to work on the project and most work will need to be done outside of class. Projects will be submitted via Blackboard. Projects will not be accepted via email. For each day any part of the project is late, 20% will be deducted from the final score.

EXAMS: Two mid-term exams will be given during the semester. If an exam must be missed for a valid reason you will be allowed to take a make – up exam. Valid reasons must be submitted **PRIOR** to missing an exam. No early exams will be given.

Exam Dates:

Exam I – Wednesday, September 26th

Exam II – Monday, October 29th

FINAL: There will be a comprehensive final exam. No early finals will be given for **any** reason.

Final Exam – Section 1: Friday, December 14th – 1:00 – 3:00 pm

Final Exam – Section 2: Monday, December 10th – 3:10 – 5:10 pm

CALCULATORS: At times calculators may be used in this course. Please be aware that if you are using a calculator, all work and steps must be shown in order to receive full credit on any assignment or exam. Calculators will be provided for use during exams.

STUDY ASSISTANCE: Why struggle? There are many opportunities on campus to get help. Successful students make use of available resources, so don't struggle when help is just a few steps away! I want you to succeed, I'm here for you, and there is FREE tutoring available in the Math Learning Center (Cleveland 130) and the computing lab in Thompson Hall (Room 1). Check it out! Tutoring begins the first week of classes. Also, I am here to help you. It is my goal to see you succeed in this class. Make use of these options. Also, forming study groups and meeting to review assignments is helpful.

WSU SAFETY MEASURES: Washington State University is committed to maintaining a safe environment for its faculty, staff, and students. Please visit <http://safetyplan.wsu.edu> and <http://oem.wsu.edu/emergencies> to access the Campus Safety Plan and emergency information. You should also become familiar with the WSU Alert Site (<http://alert.wsu.edu>) where information about emergencies and other issues affecting WSU will be found.

ACADEMIC INTEGRITY: All assignments are to be done by *you*, not someone else. I encourage you to work together and to discuss homework assignments by asking questions such as, "How do you do this type of problem again?" or "What is the idea here?" But you should not sit down with someone else's paper in front of you and refer to it to get your work done. This is cheating and will not benefit you. Complicity (providing answers for another student) is also a form of cheating. If I see even questionable evidence of cheating on any assignment or exam, all involved students may receive a zero on the assignment and may be reported to the Office of Student Conduct. Cheating could result in failure of the course or even expulsion from the university. It is strongly suggested that you read and understand Standards of Conduct for Students at the following web site: <https://conduct.wsu.edu/academic-integrity/>