**OAKLAND UNIVERSITY**
**DEPARTMENT OF MATHEMATICS AND STATISTICS**
**STUDENT INFORMATION SHEET AND SYLLABUS**

**COURSE:**  MTH 1118, Mathematical Sciences in the Modern World**, 10150, 4 Credits**
SEMESTER:  Winter 2018

| Faculty | Office | Section | Class Time | | Room | Phone | Email |
|---|---|---|---|---|---|---|---|
| **Prof. W. Zhang** | **446 MSC** | **010** | **1:00 pm - 2:47 pm** | **TR** | **168 MSC** | **370-3442** | **w2zhang@oakland.edu** |

**Attendance at every class is expected.**

COURSE WEBSITES:
https://moodle.oakland.edu for grades and course postings
http://www.mymathlab.com

EXAMS:  There will be 2 in-class exams (worth 150 points each) scheduled for **Tuesday, February 13, and Tuesday, April 3, 2018.**  The final exam (worth 200 points) is scheduled for **12:00 – 3:00 pm Tuesday, April 24, 2018.** The exams and the final exam are closed-book close-notes exams.

OFFICE HOURS**:** TR 3:00 – 3:50 pm or by individual appointments with the instructor through emails.

CATALOG DESCRIPTION:  Designed for students without an extensive mathematics background who wish to explore the ways people use mathematical sciences to solve problems that arise in modern society. *Satisfies the university general education requirement in the formal reasoning knowledge foundation area. (Formerly MTH 118)*

PREREQUISITES:  Recommended a 2.0 or better in MTH 0661, or passing placement test I, or an equivalent course at another school.

TEXT:  Excursions in Modern Mathematics, 9th Ed., by Peter Tannenbaum, published by Pearson. The material to be covered is contained in chapters 1−4, 9, 10, and 15.  (See detailed syllabus below). You are expected to purchase a copy of this textbook. A student solutions manual, containing worked-out solutions to many of the exercises, is available at the book center, but its purchase is totally optional.

GENERAL EDUCATION LEARNING OUTCOMES:  For the General Education Integration area of Knowledge Applications, the student will be able to synthesize their knowledge, to see connections among the various disciplines and to apply their knowledge to real world problems. This integrated knowledge forms the basis for students to continue to learn and grow throughout their lives and prepares them for productive lives of service and leadership.

EMERGENCY CLOSING:  If the University is closed at the time of a scheduled in-class exam or quiz, (for example, because of snow), it will be given during the next class period when the University reopens. The Oakland University emergency closing number is 248-370-2000.

GRADING POLICY: Your course grade will be based upon the percentage of total points you have earned out of the 500 points available to you (300 points for all tests and 200 points for the final examination).  There is no fixed grading scale for this course; a conversion formula from your percentage score to an Oakland University grade will be determined at the end of the course.  However, the following list shows the lowest possible grade that a given percentage score will earn:  95%-->4.0,  80%-->3.0,  65%-->2.0,  50%-->1.0. This list is the best way to measure your performance throughout the semester. Course grades are posted by the Registrar on-line at sail.oakland.edu. Any questions about a course grade must be raised with the instructor within 10 work days of its posting by the Registrar.

MAKE-UP POLICY:  No make-up exams or make-up quizzes will be given, unless you miss one due to university business.  If you miss an exam and have a valid documented excuse, your final exam will be used to calculate the score of the excused exam; otherwise the missed exam will count as a 0.

ACADEMIC HONESTY:  Cheating is a serious academic offense. Oakland University policy requires that all suspected instances of cheating be reported to the Academic Conduct Committee for adjudication. Anyone found guilty of cheating in this course will receive a course grade of 0.0, in addition to any penalty assigned by the Academic Conduct Committee. Working with others on a homework assignment does not constitute cheating; handing in an assignment that has essentially been copied from someone else does. Receiving help from someone else or from unauthorized written material during a quiz, exam, or final exam is cheating, as is using a calculator as an electronic "crib sheet."  Providing such assistance for someone else also constitutes cheating.

CALCULATOR POLICY:  You may use a calculator for numerical calculation on exams and homework assignments. However, using a calculator to store formulas you need for an exam or obtain the statistic answers is not permitted. Calculator or other device with external communications capabilities is **not** permitted on any exams. To receive full credit on exams, you must show analytic hand work steps and techniques **not** from a calculator. No matter what kind of calculator you have, it is important to learn to use it effectively. In particular, know how to do long calculations without writing down intermediate answers, and be aware of how many digits of accuracy you can expect an answer to have. Try to use your calculator imaginatively, too; for example, calculators often provide you with ways to verify an answer (e.g. by graphing with a graphing calculator, or plugging in particular values of variables). Any questions you have about the operation of your particular calculator should be addressed by consulting its operating manuals or accompanying technical support.

STUDY HABITS:  Cultivating good work and study habits is necessary for doing well in mathematical sciences courses. You should keep on top of the subject by doing large amounts of homework (frequently working on problems not assigned), regularly reviewing earlier material, asking questions in class, and making good use of your instructor's office hours and the Academic Skills Center. If you are having difficulty with some concept or mathematical procedure, you should get it clarified as soon as possible. If you make mistakes on exams or quizzes, rework these problems with the idea that you will not make similar mistakes later. Regular reviewing of older material in the course will put you in good stead when it comes to final exam time. This will help you to avoid the usual non-retention problems that students encounter at the end of the course.  You should expect that doing all of these things will take at least two hours outside of class for each hour in class. Many students find it helpful to spend some of this time working with others, in study groups.

VETERAN SUPPORT SERVICES:  The Office of Veteran Support Services (VSS) is the campus office responsible for supporting student veterans and military families.  Through VSS, veterans and their dependents can be connected to campus and community resources to help ensure they are receiving the benefits they have earned. Student veterans and military dependents who wish to learn more about the services afforded to them should contact VSS, by visiting 116 North Foundation Hall, emailing VSS@oakland.edu, by phone at 248-370-2010 or visiting our website at http://wwwp.oakland.edu/veterans/.

SPECIAL CONSIDERATIONS:  Students with disabilities who may require special considerations should contact the Office of Disability Support Services.  Student althelets with conflicting exams schedules may require special considerations by submitting proper paper work from OU. All such students should also notify their instructors as soon as possible.

**Please see the following link for important dates:**  https://wwwp.oakland.edu/registrar/important-dates/

**TENTATIVE (INTENDED) SYLLABUS WINTER 2018**

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|
| | | | **Jan. 4**<br>15.1, 15.2 | |
| | **Jan. 9**<br>15.2, 15.3 | | **Jan. 11**<br>15.3, 9.1 | |
| | **Jan. 16**<br>9.2, 9.3 | | **Jan. 18**<br>9.3, 9.4 | |
| | **Jan. 23**<br>10.1, 10.2 | | **Jan. 25**<br>10.2, 10.3 | |
| | **Jan. 30**<br>10.3 | | **Feb. 1**<br>10.4 | |
| | **Feb. 6**<br>10.5 | | **Feb. 8**<br>Review | |
| | **Feb. 13**<br>Exam 1 | | **Feb. 15**<br>1.1, 1.2 | |
| | **Feb. 20**<br>WINTER RECESS | | **Feb. 22**<br>WINTER RECESS | |
| | **Feb. 27**<br>1.3, 1.4 | | **March 1**<br>1.4, 1.5 | |
| | **March 6**<br>2.1, 2.2 | | **March 8**<br>2.2, 2.3 | |
| | **March 13**<br>4.1, 4.2 | | **March 15**<br>4.2, 4.3 | |
| | **March 20**<br> 4.4. 4.5 | | **March 22**<br>4.5, 4.6 | |
| | **March 27**<br>3.1, 3.2 | | **March 29**<br>Review | |
| | **April 3**<br>Exam 2 | | **April 5**<br>3.2, 3.3 | |
| | **April 10**<br>3.4, 3.5 | | **April 12**<br>3.5, 3.6 | |
| | **April 17**<br>Last day of class,<br>Review, Catch Up | | | |