MTH 105: Introduction to Contemporary Mathematics
Summer 2019, CRN: 15614
10:00 – 10:50 A.M., MTWR; WOH-126

Instructor: Stanley Leung
Office: WOH-103
E-mail: leungs@linnbenton.edu
Phone: leungs@linnbenton.edu
Office hours: Monday, Wednesday: 11:00 – 12:00 P.M.

Course Description:
A survey course in mathematics for students in the liberal arts and other non-science majors. Topics are selected from areas such as management science, statistics, social choice, the geometry of size and shape, and computers and their applications. Emphasizes the application of mathematics to the problems of contemporary society and the critical role these applications play in economic, political and personal life. Prerequisites: Math 095 Intermediate Algebra or equivalent

MTH 105 Student Learning Outcomes
Upon completion of the course, the student will be able to:
1. Demonstrate an understanding of how mathematics and numbers are used in daily life and to model real-life financial situations.
2. Demonstrate an ability to understand and interpret data presented in various forms.
3. Demonstrate an understanding of basic statistics and logic.
4. Apply a healthy skepticism for data and statistics offered in the media.

Required course materials
- Textbook*: Math in Society* (Edition 2.5, 2017) by David Lippman
- Bring your calculator (TI-30X, TI-83, TI-84), laptop computer to every class meeting.

Class format
The course consists of lectures, discussion/problem solving.

Grading Criteria

Points Allocated		Grade Assignment
The final course grade will be computed as follows:		A: 90 – 100 points
• Homework assignments	35 points	B: 80 – 89.99 points
• Two tests	20 points	C: 70 – 79.99 points
• Quizzes	10 points	D: 60 – 69.99 points
• In-class assignments	15 points	F: 0 – 59.99 points
• Final examination	20 points	

Grades of Y and WP are not given in this course.
Note: Your scores for this course are not stored on Moodle.

- **Absences and excuses do not improve grades.**
- **Understanding comes after studying.**

You are expected to observe the following cell-phone policy:

> # Cell-phone policy: Zero tolerance for cell-phone use in class.
>
> You will be asked to leave the classroom if you use cell phone in class.
> All **electronic devices** (except approved medical devices, calculator, laptop**) are banned**
> from our classroom or instructor's office. Consult LBCC policy posted in classroom.
> This policy gives you a higher chance of success in Math 105.

How to do well in this course?
To do well in this course, **your responsibilities** include: **Attend all classes and do all required course work**. Take quizzes, tests, and the final examination. Submit homework assignments and in-class assignments on time. Study lecture notes, read textbook, and watch videos daily. Understand the connections between concepts. Pay close attention to definitions, technical details.

Notice:
- **You are responsible for the material covered, course-related information, and announcements made during the class(es) that you miss.** Even if you are sick, even if your car breaks down, even if your cats have to go to the vet; you are still responsible for all the material you missed in your absence.

Tips for success
> - To succeed in Math 105, attendance is essential. Two or more absences can affect your grade, due to missed work, and explanation of concepts.
> - Keep up!
> - Study your lecture notes, read the textbook, and watch videos. (You are expected to review lecture notes daily.)
> - Help will be much more effective and productive if *you know what it is that you don't understand* and if *you bring specific questions from lecture or the book*!
> - To ensure you comprehend the material, plan on studying at least 1 hour a day outside of class. **You are expected to spend 10 to 20 hours** per week outside of class studying and working on the content of Math 105.
> - Use learning center (WH-226), Math Café, and instructor's office hours. Ask questions in class. Do not wait. You are encouraged to form teams of two.

In-class assignments
Besides lectures, the instructor provides guided discussion/problem solving to illustrate and reinforce concepts. Students are encouraged to work in *teams of two*. Students studying in teams can improve understanding concepts, acquire learning skills including Excel skills; and make new friends, too.
Notice:
- **To receive credit for in-class assignments, you must be present in class**. No excuses.
- In-class assignments must be turned at the end of that class meeting, unless instructed otherwise.

Homework assignments
Do homework assignments **completely** on your own team (= 1 student or 2 students). You must work on the homework assignments on your own team, independent of other teams in class. **Credit for an assignment is equally divided among those teams for work that has been copied.** This includes computer output when used in the homework assignments. The instructor retains copied homework assignments.

You must hand in your homework assignment at the start of class.
Homework deadline: **5 minutes after the start of class** on the due date.
Notice: The instructor does not accept electronic versions of homework assignments.

Policy on late homework assignments

[1] You are allowed to turn in one late homework assignment (up to **72 hours late**) without penalty. Use it for an emergency only. This 72-hour policy may change when it is close to a test or final exam.

[2] If you turn in your homework assignment later than **10:00 A.M.**, you will **lose one point** from the score of the assignment for every minute past the due time. If your assignment is more than 10 minutes late, then option [3] applies.

[3] 1 day late: 90% credit; 10:06 A.M.(due day) to within 24 hours

    2 days late: 70% credit; 10:06 A.M. (due day) to within 48 hours

    3 days late: 50% credit; 10:06 A.M. (due day) to within 72 hours (After 72 hours, late HW assignments will go to recycle bins.)

Homework Policy

- To get credit, all parts of your response to a problem (or part of a problem) must be **correct**, **specific**, and **explicit**.
- You **must use standard procedure of solving statistics problems**, with standard mathematical symbols and notation. Your instructor, as well as your textbook, shows you the standard procedure for solving math problems. Clear written communications are expected.
- Homework must be written neatly and in an **organized manner**. Homework that is submitted for grading must be in **finished form** and not in draft form. **Do not put your sketch work on homework sheets**.
- Use 3 or 4 decimal places for numerical answers if necessary. Units of measurement must be included.
- For **full credit**, show all your **WORK** (problem setup, formulas and steps of calculation, standard procedure, standard notation, units, …)
- **Correct numerical answers with no WORK receive no credit**.

This policy applies to in-class assignments, homework assignments, tests, and the final examination.

Quizzes

These quizzes will be closed book. You may use a 3" × 5" note card, both sides are okay. The topics for a quiz will be announced on Moodle. The quiz problems will be similar to in-class and homework problems. Quizzes are the **last 20 minutes** of class. You will have 5 quizzes.

Quiz schedule: Thursday; weeks 2, 3, 6, 7, 9

Tests

In-class tests consist of true-or-false questions, multiple-choice questions, computational problems, short-answer conceptual questions. All in-class tests are closed-book and closed-notes. You may use a letter-size sheet for hand-written notes. Both sides are fine.

If you have questions regarding your graded test, you must talk to the instructor within **3 school days** after it is returned to you.

Test 1: Thursday, Week 4; **Test 2**: Thursday, Week 8

Policy on tests:

- Make-up tests will not be given under any circumstances.
- If you missed a test and have a **documented reason** or **verifiable emergency**, the credit for the test will be transferred to the final exam. That is, the credit for your final exam is 30 (= 20 + 10) points.
- You must not use cell phones or cell-phone calculators during tests, or the final examination.

Final Examination

The final examination is comprehensive and covers all lectures through the end of the fall quarter. This is an open-book and open-notes exam. The final exam consists of true-or-false questions, multiple-choice questions, conceptual questions, computational problems, and data-analysis skills. **No make-up final examination**.

Final exam: Thursday, week 10

Incomplete Policy

- If you are **passing the course** (C or above) **and** have a **documented reason** or **verifiable emergency** for not being able to complete the course, I may be able to grant you an incomplete. You must obtain my written agreement if you wish to have a grade of incomplete recorded.
- If you miss the final exam, are passing Math 105 and have a **documented reason** or **verifiable emergency**, you will be given an Incomplete. If you miss the final exam and your absence is unexcused, you will receive whatever grade you have earned by your total points (maximum 80) prior to the final exam.

Special Circumstances:

Students who have any emergency medical information the instructor should know of, who need special arrangements in the event of evacuation, or students with documented disabilities who may need accommodations, should **make an appointment with the instructor as early as possible, no later than the first week of the term.**

Request for Special Needs or Accommodations

You should meet with your instructor during the first week of class if:

1. You have a documented disability and need accommodations.
2. Your instructor needs to know medical information about you.
3. You need special arrangements in the event of an emergency.

If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources (CFAR) Online Services webpage every term in order to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR Website for steps on how to apply for services or call 541-917-4789.

Center for Accessibility Resources
Main Office, Red Cedar Hall 105 (RCH-105)
Monday-Friday 9:00 a.m. - 3:00 p.m.
Phone: (541) 917-4789 Email: cfar@linnbenton.edu

Support Lab, Red Cedar Hall 114 (RCH-114)
Monday-Friday 8:00 a.m. - 3:00 p.m.
Phone: (541) 917-4343 Email: cfarlab@linnbenton.edu

The LBCC Center for Accessibility Resources and YOU!

The Center for Accessibility Resources provides assistance to students who have documented disabilities by:

- Reviewing documentation, provided by the student, that provides evidence of disability
- Planning reasonable accommodations
- Coordinating services in the classroom
- Providing support (i.e. assistive technology, testing accommodations, and classroom accommodations)
- Success coaching and advocating

If you have a disability and feel that you will need accommodations as a student at Linn-Benton Community College, we are here to support you.

Your instructor is a fair dictator!   ☺

- To be fair to all students in Math 105, the instructor strictly enforces the course policies. For individual situations not covered in the course policies, the instructor will act at his discretion. Additional information relating to the course material or assignments will be handed out or announced in class. **You are responsible for the material covered, course-related information, and announcements made during the class(es) that you miss**.
- The instructor does not use class time to return graded assignments, and tests.

Tentative Course Outline (Tentative)

Problem Solving
Finance
Voting Theory
Apportionment
Fair Division
Growth Models
Statistics
Describing Data
Probability

Note: This outline gives you a rough sense of our course of study. We go faster on some simple topics, and slower on some important concepts. We will cover and learn as much as we can.

Important:

- Class notes, homework assignments, solutions, announcements, and review materials are stored on Moodle.
- Make sure that you check Moodle for course-related materials **at least 3 times a week**.

The amount of time you spend on homework problems as well as in-class problems will directly affect how much you learn, your exam scores and, therefore, your grade in the course.

☺ I hope you will enjoy your *guided tour* through **Introduction to Contemporary Mathematics**. ☺