



Business Mathematics: Busn 135 Syllabus (Online)

(subject to change)

Spring 2022
Highline College
2400 S. 240th St.
Des Moines, WA 98198

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Getting Started in this Class:

- 1) The first thing you must do is watch the Class Introductory Video and read the Syllabus (you are reading the syllabus now) at this web site:
<https://people.highline.edu/mgirvin/AllClasses/135NoTextBook/135/135NoTextBookClass.htm>
- 2) The video and written syllabus show how this “No Textbook”-YouTube class will be conducted.

Instructor Information:

Instructor’s Name: Michael Girvin
Instructor’s Office Phone: (206) 592-3562
Instructor’s Email address: mgirvin@highline.edu
Office / Student Hours: Monday to Thursday: 12:00 PM – 1:30 PM in 29-307

Office / Student Hours means you can get help with class, advising or other questions that you may have.

In person, phone, or e-mail meetings:

Send me an e-mail to request a meeting Monday to Saturday outside my office hours.

Course Information

Department: Business
Item (Section): 1YCF-LEC (29776)
Location: Online
Schedule: listed at end of this syllabus

Busn 135 Class Description (As Listed in Highline Catalog)

Teaches practical mathematical applications in business; emphasis on percentages, cash and trade discounts, markup and markdowns, depreciation, interest, present values, annuities, and consumer credit. Learn how to make business math calculations by hand on paper and by using the spreadsheet program Excel. Deals with the theory and application to case situations. Extensive practice with the problem analysis, problem setup, making necessary calculations and making conclusions based on the calculations.

Course Overview

This course introduces students to Business Mathematics application using paper and Excel formulas. Students will learn how to make Business Mathematics calculations using Excel effectively and efficiently. We will use Excel as it is a powerful tool that has become well established by different employers in their business process, in everyday accounting and financial calculations. You will leave the class well versed in business calculation and basic and intermediate excel formulas.

Busn 135 Course Outline

- 1) Introduction To Excel
 - i. Why we use Excel for Business Math
 - ii. What is Excel?
 - iii. Formulas
 - iv. Number Formatting
 - v. Cell References & Copying Formulas
 - vi. Keyboards
 - vii. Style Number Formatting
- 2) Math Basics & Word Problems
 - i. Whole Numbers & Decimals

- ii. Order of Operations
 - iii. Rounding
 - iv. Add & Subtract
 - v. Multiply & Divide
 - vi. Exponents
 - vii. Word Problems
- 3) Fractions, Decimals, Percentages
- i. Fractions & Division
 - ii. Fractions, Decimals and Percentages are interchangeable
 - iii. Converting a Fraction or Decimal to a Percent is FORMATTING!!!
 - iv. Prime Numbers
 - v. Reduce Fractions
 - vi. Change Improper Fraction to Mixed Numbers
 - vii. Change Mixed Number to Improper Fraction
 - viii. Multiply Fractions
 - ix. Divide Fractions
 - x. Add and Subtract Fractions
- 4) More About Percentages
- i. Converting any number to a Percentage and Back Again
 - ii. Percent Formula
 - iii. Base
 - iv. Rate
 - v. Part
 - vi. Increase Decrease Problems
 - vii. Markdown
- 5) Banking & Payroll
- i. Banking
 - 1. Checks
 - 2. Check Register
 - 3. Bank Reconciliation
 - 4. Credit Card Reconciliation
 - ii. Payroll
 - 1. Gross Earnings, Like: Wage, Salary, Piecework, Commission
 - 2. Deductions, Like: Social Security and Income Tax
- 6) Buying & Selling
- i. Buying
 - 1. Invoices
 - 2. Trade Discounts
 - 3. Cash Discounts
 - 4. Partial Payment of Invoice
 - ii. Selling
 - 1. Markup on Cost
 - 2. Markup on Sell Price
 - 3. Selling Price of Perishables
 - 4. Markdown

Busn 135 Student Learning Outcomes (As Listed in Highline Catalog)

- Analyze business problems and make conclusions based on the calculations performed. Explain conclusions in words
- Perform arithmetic with the math operations: add, subtract, multiply, divide, exponents, parenthesis and the order of operations.
- Use Excel to perform business math calculations with an emphasis on data type, Number Formatting and formulas.
- Develop abilities to use fractions, decimals, and percentages to help make business decisions by hand on paper and by using the spreadsheet program Excel.
- Calculate various types of Cash Discounts and Trade Discounts by hand on paper and by using the spreadsheet program Excel.
- Calculate various types of Depreciation by hand on paper and by using the spreadsheet program Excel.
- Make simple interest, compound interest, futures value and present value calculations by hand on paper and by using the spreadsheet program Excel.
- Use calculations and concepts to make business and personal decisions

Additional Outcomes for this class:

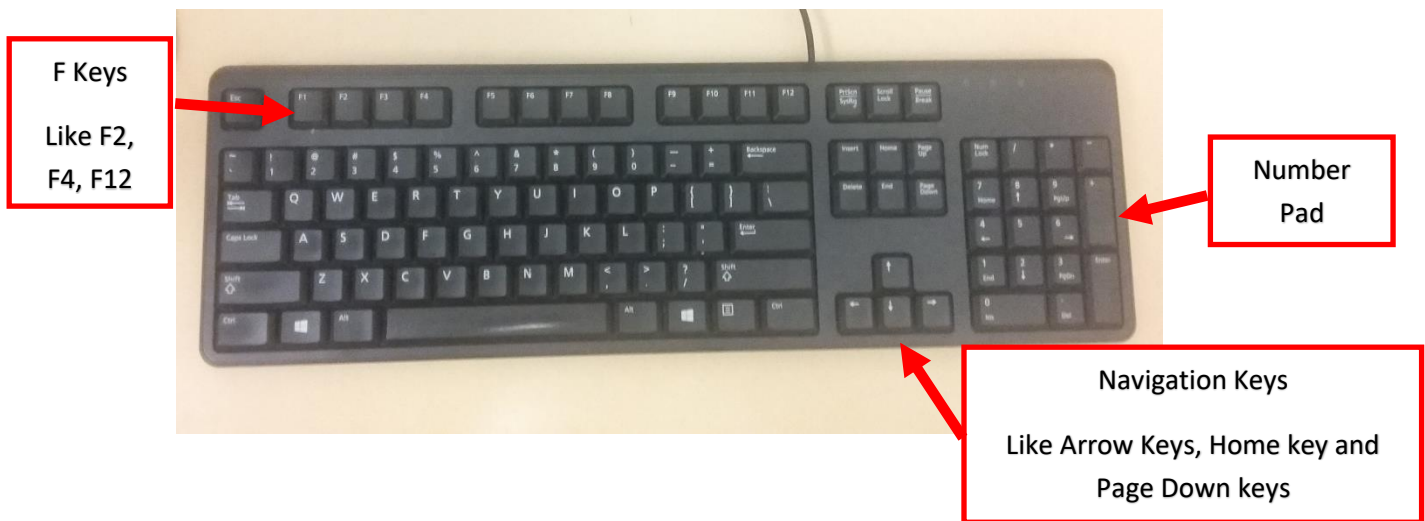
- 1) Understand the definition of Effective and Efficient
 1. Effective:
 - i. Accomplish the stated goal.
 - ii. In this class the goal is to create things like Payroll tables or calculate the correct invoice totals after a trade discount. For these calculations, effective means get the correct answer.
 2. Efficient
 - i. Accomplish the goal with the minimum number of resources.
 - ii. In this class the resource is time. So "Efficient" means we will learn how to create Excel Solutions that make math calculations quickly in order to save time.
 - iii. Two examples of efficient are:
 1. Using the SUM Function like =SUM(B7:B11,B14:B20,B23:B25,E7:E17), rather than the much longer formula:
=B7+B8+B9+B10+B11+B14+B15+B16+B17+B18+B19+B20+B23+B24+B25+E7+E8+E9+E10+E11+E12+E13+E14+E15+E16+E17
 2. Relative and Absolute Cell References to quickly calculate a column of Payroll number, like: =ROUND(B9*\$E\$9,2), where \$E\$9 must be locked (Absolute).

Requirements for class:

- 1) There is no textbook to buy for this class.
- 2) Must have daily access to a Windows based PC computer that fulfills these requirements:
 - Computer must have an internet connection that allows you to watch the YouTube class videos.
 - Computer must have Excel 2013 or later for PC. Free Microsoft 365 Office with Excel that Highline provides all students is good for this class.
 - Computer can NOT be a MAC or a Chromebook.
 - i. Why are Macs and Chromebooks not allowed?
 1. Because the Mac and Chromebooks are different than Windows based computers.
 2. Because most employers require employees to use Windows based PC computers.
 3. The Business Department at Highline is required to teach you on a Windows based PC computer to match employers' demands.



- 3) Buy a USB Jump Drive so you can store our class Excel & PDF files.
- 4) A Standard Keyboard with the F Keys, Navigation keys and the Number Pad is strongly suggested because of the number crunching and data analysis we do and because it is more efficient for most business applications. If you don't have a Standard keyboard, you must have a keyboard with the F Keys and Navigation keys. For some laptop computers you may have to use the Fn button (Function key) to access the F keys.
 - Standard Keyboard looks like this:



- Laptop computers have many different configurations. But if you have a laptop, you may have to access the F Keys using the Fn button (Function key). Here is a picture of a Surface Laptop Keyboard:



Access to Computers:

- 1) The Computer Lab Building 30 is open to students, the computers can be scheduled up to 2 hours at a time and is limited to students only. You can book an appointment by going to <https://its.highline.edu/> or you can check in at the help desk in building 30.
- 2) If you do not have access to a Windows based PC computer with the Excel program installed, you will have to submit a request to the Highline helpdesk to borrow a computer for the quarter.
 1. Please complete the request to borrow a laptop online using this link <https://forms.office.com/Pages/ResponsePage.aspx?id=AzbjXcO4-06rg5AtOyQeHLOGPASG4rpPtmhuUP6HgPNUQ01FTk9TOENSQ0NMNkxVODMzOExKSzY1Ny4u> or you send an email request to: helpdesk@highline.edu
 2. In the request you must ask for a Windows based PC computer with a full keyboard and the program Excel installed on it.
 3. Please refer to our canvas Module -- Covid-19 Information and Resources.
- 3) If you have a computer and just need the Excel program, Highline provides students with a free version of Microsoft 365 Office with Excel and Word. Here is link: <https://its.highline.edu/> (first link in Important Information list).

First Week Drop Policy

You must take Quiz 00 in the Week 1 section of the Home Area of Canvas BEFORE Friday, October 1 at noon. If you do not complete this quiz before the deadline, you will be dropped from the class in accordance with the Highline College first week non-attendance drop policy. The quiz is a one question quiz that has only the single option "Yes". You select "Yes". This quiz is worth 10 extra points toward your grade for the class.

We have Two Class web sites:

1. Use the people.highline web site to download files and watch videos:
<https://people.highline.edu/mgirvin/AllClasses/135NoTextBook/135/135NoTextBookClass.htm>
The people site contains:
 - 1) Introductory Video
 - 2) Syllabus, which has details of the class and a daily schedule with details of video lectures, quizzes and test dates and times.
 - 3) All Video Lectures
 - 4) Downloadable files for class
2. Use Canvas to take quizzes, upload tests and view your points for the class.
<https://canvas.highline.edu>
The Canvas site contains:
 - 1) Announcements
 - 2) Quizzes
 - 3) Test Upload Links
 - 4) Grades section shows you your points earned for the quizzes and tests
 - 5) **The Canvas site is only available during Fall quarter which starts at 12:00 AM, Monday, April 4, 2022, and ends at noon on Wednesday, Jun 15, 2022. If you want information about your score or grade after the class is turned off, just e-mail mgirvin@highline.edu.**

How to succeed in this class (structure of class):

- 1) There is no textbook in this class.
- 2) This class uses video lectures rather than expensive textbooks.
- 3) The weekly schedule of what to do is at our people web site (at the end of this syllabus). This weekly schedule tells you what videos you need to watch each week, what quiz you need to take or what Test you will need to submit.
- 4) For each video there is an Excel file and pdf notes.
- 5) Before you watch the video lecture, you download the Excel file and open it.
- 6) Then you watch the video to learn how to do math and Excel inside the downloaded Excel file.
- 7) You will go back and forth between the video and the Excel file. You can hit pause and rewind as many times as you need while you complete the video exercises in the Excel file.
- 8) When you are done with the video and you have completed all the video exercises in the Excel file, you can try the homework problems.
 1. These homework problems are at the end of the worksheets in the Excel files.
 2. There are answers to the homework problems directly next to the homework problems so you can check your work.
- 9) The video exercises and homework problems are NOT handed in to get points toward your grade. The video exercises and homework problems are done by you to practice for the quizzes and tests.
- 10) When you are done with a video, you read the pdf notes, which summarize in written and pictorial form everything that you learned from the video.
- 11) After you read the pdf notes, you move on to the next video.
- 12) When you are done with all the video projects, the Excel files and homework problems for the week, you look at the schedule to find the quiz or test that you should take.
- 13) When you are done with everything for the week, you move on to the next week.
- 14) The quizzes and test upload links are in the Home Area of Canvas.
- 15) Details about the tests and quizzes are in the next section.
- 16) To earn a grade in this class you watch the videos, complete the Excel file, do the homework, all for practice so that you can earn points toward a grade with the quizzes and tests. This means that the video Excel work and homework problems are NOT handed in for points toward your grade.
- 17) The instructor will communicate with you through Announcements in Canvas.

Details about Tests

- 1) There will be about 4 take home Excel & Math Tests that will be e-mailed to you which you must complete and then upload to the Test Upload Link in the Home area of Canvas for points toward your grade.
- 2) These tests are not True/False or Multiple Choice tests.
- 3) These tests will be similar to the Excel & Math exercises/homework that you complete while watching the Video Lectures. It is important that you are watching the videos and doing the homework to do well in the tests.
- 4) The send out test dates and due dates are listed in the schedule, which appears later in this syllabus. These dates are firm.
- 5) You cannot take tests early.
- 6) Late test uploads lose 25% of the test points. This means that you must upload the test before the date-time due date to avoid a 25% reduction in earned points.
- 7) Makeup tests can be taken if a documentable emergency occurs, like documented deaths or medical emergencies. In order to qualify for documentable emergency you will have to submit written proof (like doctor's note or death certificate) to the instructor.
- 8) The test scores earned will count toward your grade for the class.
- 9) No Late tests can be handed in after the official end of class date-time: **noon, Wednesday, Jun 15, 2022.**

Details about Quizzes

- 1) There will be about 5 Canvas True/False or Multiple Choice.
- 2) These quizzes are listed in the Home area of Canvas.
- 3) The suggested dates for these quizzes are listed in the schedule, which appears later in this syllabus. These dates are not firm, which means you can take the quizzes at any time that you want throughout the quarter, with an **exception to quiz 00 which has a firm date of October 1, 2021, before noon.**
- 4) Although, these quizzes can be taken anytime during the quarter, it is strongly suggested that you take them on the dates that are listed in the schedule. This will help you to have the freshly studied content of the class in your mind when you take the quiz.
- 5) Each quiz will be cumulative, which means it will test on everything in the class up to that point in the class.
- 6) During the quiz, there is no backtracking, which means you must be sure of your answer before submitting it.
- 7) The quiz scores earned will count toward your grade for the class.
- 8) No Late quizzes can be handed in after the official end of class date-time: **noon, Wednesday, Jun 15, 2022.**

Canvas Gradebook is NOT Correct

- 1) Do NOT use the percentage grades you see in canvas to calculate your grade.
- 2) The percentage grades you see in canvas indicate the percentage correct, ONLY on assignments handed in.
- 3) The scores for each assignment in Canvas are correct. That is to say, the point you earned are correct.
- 4) All official grading for your grade will be done outside of Canvas. Grades will be calculated in Excel by the instructor.

Grading:

- 1) Your grade is calculated by tallying your total points from tests and quizzes and dividing by the total points possible from tests and quizzes. That decimal or percentage can be looked up in the table at the right to determine your grade.
- 2) Only your three highest test scores and quiz scores will be used for grading. This means that your lowest test score and lowest quiz score will be dropped.
- 3) For example, if your three highest quiz scores were 21, 27 and 25 (maximum possible on each is 30) and your three highest test scores were 89, 76 and 97 (maximum possible on each is 100), your total would be: $(21 + 27 + 25 + 89 + 76 + 97) / (30 + 30 + 30 + 100 + 100 + 100) = 335 / 390 = 0.859$ or 85.9%, and your decimal grade from the table on the right would be 3.1.

4) Grading Scale:

% Grade	Decimal Grade	% Grade	Decimal Grade
94.00%	4	76.00%	2.2
93.00%	3.9	75.00%	2.1
92.00%	3.8	74.00%	2
91.00%	3.7	73.00%	1.9
90.00%	3.6	72.00%	1.8
89.00%	3.5	71.00%	1.7
88.00%	3.4	70.00%	1.6
87.00%	3.3	69.00%	1.5
86.00%	3.2	68.00%	1.4
85.00%	3.1	67.00%	1.3
84.00%	3	66.00%	1.2
83.00%	2.9	65.00%	1.1
82.00%	2.8	64.00%	1
81.00%	2.7	63.00%	0.9
80.00%	2.6	62.00%	0.8
79.00%	2.5	61.00%	0.7
78.00%	2.4	0.00%	0
77.00%	2.3		

Academic Honesty:

Students are expected to maintain a high standard of honesty in their academic work. Cheating and plagiarism are specifically prohibited under the college's Student Rights and Responsibilities provisions. Acts of cheating may include:

- 1) Turning in an item you did not create is cheating. Copying another person's digital item or work is cheating.
- 2) Allowing (intended or not intended) someone else to copy your work or digital item, is considered cheating and will result in a failing grade for the assignment. This means that you must safeguard your work and computer so that others do not have access to your work or computer.
- 3) During a test or quiz, do your own work, do not look at other's work, and do not talk with others (to do so is cheating). Do not discuss your test or quiz with others before or after the test. Having someone take or help you with a test or quiz is cheating.

Academic dishonesty of any kind will result in a grade of 0.0 on the assignment and possible disciplinary action from the college.

If I have reason to believe that you engaged in academic dishonesty, I may make a report to the Office of Student Conduct after speaking with you about the situation. Students who have more than one report of alleged academic dishonesty during their time at Highline College may be required to meet with a Conduct Officer for a student conduct hearing and have sanctions imposed. It is both your right and responsibility to be familiar with the document entitled [Student Conduct Code WAC 1321-125](#).

Incomplete Policy

- 1) In accordance with Highline policy, Incomplete Contacts are granted in the cases of documented emergencies. Examples of documentable emergencies are notes from doctor for hospital visit or a copy of death certificates for a relative.
- 2) Incompletes are considered only if 80% of the class work is done with a 2.0 grade or higher before the end of the sixth week.
- 3) The student must notify the instructor BEFORE the last day of the class in order to qualify for an incomplete.
- 4) If an incomplete is granted, a contract between the student and teacher will be created and the terms of the contact must be completed within two weeks of the last day of class.

College Policies

Inclusive Statement

Highline College actively promotes and supports a learning environment which ensures social justice, mutual respect, understanding, civility and nonviolence.

I recognize and respect diversity knowing that we are all different, and we also learn in different ways. These differences provide us with opportunities to learn new things, compare experiences, test our assertions, understand ourselves better, and find common ground. In this class I will uphold and promote an anti-discriminatory environment where everyone will belong and feel safe. I am committed to provide an equitable learning environment that will provide support to everyone in this class with a goal to ensure that we all learn and succeed.

Access Services Statement:

Your experience in this class is important to me. If you have already established accommodations with Access Services, please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through Access Services, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact Access Services at 206-592-3857, access@highline.edu or access.highline.edu. Access Services is located in building 99 suite 180.

Grievance Procedures:

I hope that you will communicate with me if you experience anything in this course that does not support an inclusive environment. You can also report any incidents you may witness or experience on campus through the following procedures:

For instructional grievance process:

In the case of a complaint about a course, students are encouraged to speak with their instructor first, and if the matter is not resolved, students should then contact the division chair if the complaint is against a full-time faculty member, or with the department coordinator if the complaint is against a part-time faculty member. For more detail, see the procedure: https://catalog.highline.edu/content.php?catoid=2&navoid=33#Instructional_grievance

For Title IX (claims related to discrimination and sexual harassment)

It is the policy of Highline College to provide equal opportunity in education and employment and not discriminate on the basis of race, color, national origin, age, disability, sex, sexual orientation, marital status, creed, religion, or status as a veteran of war as required by Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, RCW 49.60.030 and their implementing regulations. Prohibited sex discrimination includes sexual harassment (unwelcome sexual conduct of various types).

For more detail, see the procedure: <https://humanresources.highline.edu/faculty-and-staff/policies/title-ix/>.

Additional College Procedures & Policies

For information on college policies on diversity, classroom behavior, incompletes, absences for religious reasons, student grievances, withdrawals, and emergency procedures please visit [Highline College Procedures and Policies](#).

Student Resources:

The college offers many resources to support student achievement and success. These include Access Services, faculty advising, the Academic Success Centers (math, writing, and general tutoring), the college library, and technical support. For more detailed information on these services, please visit [Highline College Resources for Students](#).

Last Day of Class:

- All tests and quizzes must be completed before the final day of class: **noon, Wednesday, Jun 15, 2022.**
- The Canvas web site will be shut off after the final day of class: **noon, Wednesday, Jun 15, 2022.**
- If you want to contact the instructor after the class is over you can e-mail Michael Girvin at: mgirvin@highline.edu

Schedule on 2 Next Pages:

Week	Dates	Topic (section of Web Site)	Videos to watch at people web site	Earn Points for Grade with Quiz or Test
Week 1	Mon, Apr 04, 2022 to Sun, Apr 10, 2022	Introduction To Excel	Video 00 & 01 Video 02 Video 03 Video 04 Video 05 Video 06 Video 07	Complete Quiz 00: Attendance Quiz before noon on Friday, 04/08/2022. Complete Quiz 1 before midnight Sunday, 04/10/2022.
Week 2	Mon, Apr 11, 2022 to Sun, Apr 17, 2022	Math Basics & Word Problems	Video 08 Video 09 Video 10	Excel Math Test 1 e-mailed out at 9 AM on Friday, 04/15/2022 Excel Math Test 1 MUST be uploaded to Canvas before midnight Sunday, 04/17/2022
Week 3	Mon, Apr 18, 2022 to Sun, Apr 24, 2022	Fractions, Decimals, Percentages	Video 11 Video 12 Video 13, 14, 15 Video 16 Video 17	Complete Quiz 2 before midnight Sunday, 04/24/2022.
Week 4	Mon, Apr 25, 2022 to Sun, May 01, 2022	Fractions, Decimals, Percentages	Video 18 Video 19 Video 20 Video 21 Video 22	
Week 5	Mon, May 02, 2022 to Sun, May 08, 2022	Fractions, Decimals, Percentages	Video 23 Video 24 Video 25 Video 26	Excel Math Test 2 e-mailed out at 9 AM on Friday, 05/06/2022 Excel Math Test 2 MUST be uploaded to Canvas before midnight Sunday, 05/08/2022

Week	Dates	Topic	Videos to watch at people web site	Earn Points for Grade with Quiz or Test
Week 6	Mon, May 09, 2022 to Sun, May 15, 2022	Banking & Payroll	Video 27 Video 28 Video 29 Video 30 Video 31 Video 32	Complete Quiz 3 before midnight Tuesday, 05/10/2022. Covers up through Video #28
Week 7	Mon, May 16, 2022 to Sun, May 22, 2022	Banking & Payroll	Video 33 Video 34 Video 35 Video 36	Excel Math Test 3 e-mailed out at 9 AM on Friday, 05/20/2022 Excel Math Test 3 MUST be uploaded to Canvas before midnight Sunday, 05/22/2022
Week 8	Mon, May 23, 2022 to Sun, May 29, 2022	Buying & Selling	Video 37 Video 38 Video 39	
Week 9	Mon, May 30, 2022 to Sun, Jun 05, 2022	Buying & Selling	Video 40 Video 41 Video 42	Complete Quiz 4 before midnight Wednesday, 06/01/2022.
Week 10	Mon, Jun 06, 2022 to Sun, Jun 12, 2022	Finance	Video 43 Video 44 Video 45	Excel Math Test 4 e-mailed out at 9 AM on Friday, 06/10/2022 Excel Math Test 4 MUST be uploaded to Canvas before midnight Sunday, 06/12/2022
Week 11	Mon, Jun 13, 2022 to Wed, Jun 15, 2022		END OF CLASS is noon Wednesday, Jun 15, 2022. NO WORK CAN BE HANDED IN AFTER OFFICIAL END OF CLASS.	