

MA 105: Introduction to Statistics — Spring 2020
Section A: Tuesday, Thursday 01:20p to 02:35p in Olin Hall 300

Professor

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Office Hours: • Wednesday 10a–12p (McGregory 323)
• Thursday 2:35p–3:35p (Olin 300)
• [By appointment on Google Calendar.](#)

Purpose: To give students an algebra-based introduction to the modern statistical methods including descriptive and inferential statistics. To show students that statistics is an important way of thinking that can be used to formulate and answer questions about the world. Students will summarize data to understand and evaluate statistical statements as well as make inferences using real data. Students will use **Cran R** to do such analyses, giving them a valuable opportunity for exposure to a covetable skill across disciplines.

Course Objectives: At the completion of this course, students will be able to:

1. evaluate ethical issues associated with statistical practice
2. critically consume statistically-based results
3. create graphical displays and numerical summaries of real data
4. recognize and explain the central role of variability and randomness in statistical analyses
5. demonstrate an understanding of, and ability to use, ideas of statistical inference in a variety of settings
6. interpret and draw conclusions based on standard output from statistical software

In 20 years, I want students to remember the juice is worth the squeeze. If they struggle with a puzzle, they *can* solve it. We're working toward a holistic understanding of thought and not mindless mimicking.

Productive Failure: I would like to recast failure as a learning tool. Realizing mistakes in practice provides a rich time for learning if we complete the hard work of helping each other to the point of epiphany. This requires us to signal our need for help to each other, which necessitates an environment where it is safe to take risks and connect. In-class discussion and curious risk-taking will be celebrated as much as the correct answer. An incorrect response provides the best place to grow. This is how we will *learn* to actively engage and discuss mathematics.

Rules of Engagement:

1. All humans are accepted members of our classroom.
2. Assume positive intent.
3. Share talking time.
4. Listen to understand.
5. Be present.
6. Critique ideas, not people.
7. Everyone has expertise. We can learn something from everyone.
8. Share a feeling of mutual responsibility for each other.
9. Encourage others to succeed.

Recommended Reading: *Naked Statistics*, by Charles Wheelans, W. W. - Norton Publishing.

Technology: Students will have the opportunity to learn and use **Cran R** for this course. Many students may have previously used the TI line of graphing calculators, but this is antiquated technology that is only used in schools; practically no academic researcher or industry professional uses TI calculators. Instead, using **Cran R** will expose students to the state of the art in statistical computing. Students shouldn't expect to learn how to code **R** from scratch, but to get to a point where they can copy and paste working code and make minor changes to answer new questions. Coding isn't easy – learning it or teaching it – but this skill is increasingly important. We will work to understand coded solutions and tweak them according to new requirements; this is the level of work students should expect. If a student feels like they're reinventing the wheel from scratch, or that they need to be an expert software developer to complete an assignment, they should stop and come see me.

Support for Technology: Devices, like laptops, are paramount to success in college. I recognize that these digital devices can be expensive and that students might not have the same access to the latest technology; digital technology changes rapidly and students might rely on older, more problem-prone devices that breakdown or become unreliable to use. These technology issues can become a significant source of stress for students. Given these challenges, students can and should contact me if they experience a technology-related problem that interferes with their learning in this course. This will enable me to assist students in accessing the appropriate [resources on campus](#).

Attendance: Students are expected to attend all classes and to arrive on time. That being said, when a student misses class due to illness, hangovers, interviews, personal crises, deaths in the family (I hope not!), and whatever else, they don't need to let me know and they should talk to classmates and check the Moodle page for what they missed. All students are responsible for all assignments that are due or assigned in the class they miss. I'd rather students not miss any class. Every class they don't attend isn't just discussion and material they missed; it's also thinking they didn't do – thinking that they will need for assignments and exams later on. In other words, every missed class is a disadvantage, even aside from grade penalties; the obligation is on the student to minimize that effect. That being said, there is no penalty or benefit for attendance as deflating or inflating grades with any percentage of a student's score coming from attendance would make a poor measure of an individual's competency in the course; students seeking high grades will quickly learn that they need to attend the course as often as possible.

Outside Class Discussion: Students should use the discussion board in Moodle as a safe place to ask questions and be curious about the course material. I expect students to answer such questions and to feed the curiosity of their peers through furthering the discussion; I will monitor the discussion board and chime in from time to time. This is intended to foster students' creativity and curiosity collaboratively, and prepare them to think critically, ask questions and gain a lifelong value out of their education.

Make-up Policy: Make-ups and extensions will be considered on a case by case basis. Students who feel they are in an extreme circumstance must notify me at least two days before the regularly scheduled deadline or as soon as possible. Students should feel welcome to reach out to discuss any due dates or exam dates that conflict with their religious observations, or other issues which are not acknowledged by the university. All make-up exams must be scheduled to be taken before or on the same day as the exam when possible.

Inclusion: It is my goal and responsibility to make this course and our classroom as accessible and inclusive as possible. I understand that students have different styles and paces of learning and accessing information and that each student comes with their own, and sometimes difficult, experiences with learning. I acknowledge the persistence of discrimination and exclusion in mathematics based on race, gender, socio-economic status, and other factors. I take responsibility for the work of lowering barriers so that access is practical and equitable. It is really important to me that we work to make the classroom environment as comfortable and respectful as possible. As a class, we will resolve to listen, learn and act in order to make this classroom proactively welcoming to all students. I encourage all students to see me if they want to discuss their learning process, experience or needs and to point out any blind spots.

Specific Learning Accommodations and Support: I hope that students will feel comfortable in notifying me at the start of the course if they require specific learning accommodations or support. I am here to help! This information will remain confidential. In many cases, students requesting accommodations will also need to contact the [Office of Academic Support and Disability Services](#) to receive help determining and coordinating a specific accommodation on the basis of disability/medical documentation. Contact info as follows: Lynn Waldman: lwaldman@colgate.edu, (315) 228-7375.

Academic Honesty: Students are expected to follow Colgate's academic honor code. If a student feels stressed about exams or deadlines they should come to see me as soon as possible so we can review their options to avoid any academic honesty issues. See [Colgate's Academic Honor Code](#).

Support: College life can sometimes get bumpy; if you are experiencing emotional or personal difficulties, seek help right away. [The counseling center](#) offers completely confidential and highly professional services, and can be contacted at 315-859-4340. If this seems like a difficult step, come find me. We can talk and call or walk to the Counseling Center together.

How to Succeed in this Class

1. Go to office hours. These conversations not only get you past an immobilizing issue in understanding but help me understand where students are in their learning process. There are many times I have a discussion in office hours that completely changes how or what I teach the next class. These meetings help us get on the same page. Come to my office hours regularly, even if you aren't struggling with the current material.
2. Come to class prepared to discuss the material for that day's lecture. Being prepared means: actively reading and thinking about past material by investigating the concepts on your own. Try practice exercises, run the sample code on your own, try a problem from class without consulting the answer. When you come to class with questions based on the concepts from these activities we can strengthen and expand our knowledge in lecture.
3. For every hour in class, you are expected to spend 2-4 hours outside of class on reading, working on assignments, and studying for exams. Be sure this time is productive – seek advice if you find yourself 'spinning your wheels.'
4. Invest a small amount of time immediately after an assignment is given to make sure you understand it and don't have major questions. Then break down the assignment into manageable pieces and work on them over the course of the week. If you wait until the last minute, seemingly insurmountable problems will undoubtedly arise, and by then it's too late to get assistance. Remember, it takes no more time to complete an assignment if you spread it out; not to mention research shows you'll retain more if you do.
5. Ask well-informed questions. Questions such as "I don't understand X; can you explain X to me?" are welcomed, but not well-informed and will almost certainly not get you the answer you are looking for. Instead, ask questions that reveal your current knowledge of the topic, similar to the following: "I understand how Y works, and I see that X is different from Y in way Z. What is it about X that causes this difference?" Answers to these questions will be much more informative and more likely to help us get closer to meeting our goals.
6. Form study groups as soon as possible and actively read, study for exams, and work on homework assignments together. If you start to struggle, make plans to see me right away (even if it has to be outside of office hours).
7. Understand and remind yourself that performance on homework or exams is not tied to your capability or intelligence. These types of assessments are snapshots of where we are and diagnostic tools for where we need to go. We are not proving our intelligence, but developing it. The goal is to grow; mistakes are not evidence of a lack of capability but illumination of places to improve.

Grading:

Homework (15%): The purpose of homework is to practice concepts introduced in lecture. Students can expect ten homework assignments. These ten assignments will consist of eight multiple choice assignments, a written statistical analysis, and (combined) weekly diagnostics.

- **Completing Homework:** Students will submit final answers on Moodle by class-time the day it is due, which will be graded for correctness. Students should judiciously review posted solutions to homework and extra problems in preparation for exams. Late submissions will not be accepted, unless previously agreed upon, due to the automatic release of solutions on Moodle. I encourage students to discuss the homework opportunities with each other and me. This can be done in a variety of ways – on the Moodle discussion board, in office hours, in active homework sessions.
- **Weekly Diagnostic Check-points:** Weekly, I will ask students to reflect on what we've discussed by seeing what they thought was important and if there are any unanswered questions. Each diagnostic will also have some questions aimed to help guide homework completion. Diagnostics will open Thursday after class and must be submitted before 11:59 on Friday.
- **Writing Assignment** – Due to the varied interest of those enrolled in the course, there will be several opportunities to complete **one** writing assignment; students will choose a writing assignment at the beginning of the semester that most closely aligns with their interests. This assignment is intended to foster students' creativity and curiosity, and prepare them to think critically, ask and answer questions using statistics, and gain a lifelong value out of their practiced statistical thinking.

Standards (50%): We will cover roughly 20 *standards* which include statistical concepts such as finding the mean of a dataset. Students can expect four two-hour, cumulative exam periods where they will be evaluated on any of the 20 standards recently covered and, perhaps, be re-assessed on previous standards. These exams do not have a percentage score. Instead, questions are graded and tracked individually.

- **Why?:** This is to provide an iterative process of learning. Initial grades are meant to serve students by providing clear, specific, and actionable feedback on what they are doing well and what may need to be revisited.
- **How?:** Exams will be returned quickly and accompanied by detailed feedback on the progress made on each assessed standard.
- **What's the Benefit?:** This allows for the opportunity to *improve* understanding after receiving feedback. The aim is to more accurately measure learning, modeling the process more closely by allowing students to be evaluated after receiving feedback and revisiting material. Additionally, the topics of the course are implicitly cumulative and repeated retrieval leads to deeper learning and easier access to new material.
- **Using Feedback:** Make attempts productive. Take a struggle with a particular topic as an invitation to try again – revisit the notes, past solutions, ask for help so that the second time is a success. Take successes as a chance to hone that knowledge on the subject by providing a highly formal solution the second time around.
- **Weighting:** The first and second attempts account for 25% and 75%, respectively, unless equal weighting benefits a student.
- **When?:** The expected dates for the exam periods can be found in the schedule below, though they may change as our course progresses. **02/19, 03/11, 04/01, 04/22.**

Final Exam (35%) A comprehensive final exam will be given according to the University's exam schedule. The exam will cover all information covered in the course.

- **When?:** The final exam is scheduled by the registrar as **Thursday, May 7 9-11a.**

Standards Scoring

– *List of Standards:*

ID	Standard/Objective	Sections	First Attempt	Most Recent Attempt
1	Samples and Populations	TBA		
2	Types of Research and Ethics	TBA		
3	Sample Techniques	TBA		
4	Bias	TBA		
5	Summarizing Experiments	TBA		
6	Summarizing Data I (Continuous Data)	TBA		
7	Assessing a Histogram	TBA		
8	Summarizing Data II (Quantitative Data)	TBA		
9	Law of Large Numbers	TBA		
10	Probability	TBA		
11	Probability Models (Discrete Data)	TBA		
12	Probability Models (Continuous Data)	TBA		
13	Sampling Distributions	TBA		
14	Central Limit Theorem I (Categorical Data)	TBA		
15	Central Limit Theorem II (Quantitative data)	TBA		
16	Confidence Intervals I (Categorical Data)	TBA		
17	Confidence Intervals II (Quantitative Data)	TBA		
18	Hypothesis Testing I (Categorical Data)	TBA		
19	Hypothesis Testing II (Quantitative Data)	TBA		
20	Association and Regression	TBA		

– *Rubric:* Each question asked during an exam period is scored on the following rubric:

Designation	Required Objectives	Points
A (Mastery)	<ul style="list-style-type: none"> • Perfect for the standard being assessed • Achieves a correct solution • Justifies decision(s) toward solution • Effectively communicates solution and support • Notation used is appropriate and clearly shows all steps 	1.00
B (Sufficient)	<ul style="list-style-type: none"> • Essentially contains the correct answer but contains a slight error • Makes correct decision(s) toward solution • Justifies decision(s) toward solution • Effectively communicates solution and support • A slight error, confused reasoning, or notation mistake 	0.85
C (Progressing)	<ul style="list-style-type: none"> • Does not contain the correct answer but does show work in the correct direction • Makes some correct decision(s) toward solution • Some justification of decision(s) toward solution • Attempts to communicate solution and support • A wrong decision, confused reasoning, and/or notational mistakes 	0.75
D (Developing)	<ul style="list-style-type: none"> • Does not contain the correct answer but shows some correct work • Incorrect decision(s) toward solution • Insufficient or incorrect justification for decision(s) toward solution • Little or no communication of solution and support • Several wrong decisions, confused reasoning, and/or notation mistake 	0.65
F (Needs Attention)	<ul style="list-style-type: none"> • Does not contain the correct answer or work in the correct direction • Missing or incorrect decision(s) toward solution • Little or no justification for decision(s) toward solution • Little or no communication of solution and support • Several wrong decisions, confused reasoning, and/or notation mistake 	0.25
Z (Not assessable)	No Response, there is no reasonable attempt to provide the correct solution.	0.00

The standards based grading scheme allows for meaningful feedback about learning and scores for students that fully address understanding. Ronald Fisher, often credited as the father of modern day statistics, once said “to consult the statistician after an experiment is finished is often merely to ask him to conduct a post mortem examination. He can perhaps say what the experiment died of.” Similarly, typical testing and grading techniques focus on evaluative work at the end of the semester, when such feedback is too late to make meaningful changes. This leads to a situation where students feel over-tested, but are left under assessed – at least when such assessment can be corrective.

The rubric above aims to provide nuanced feedback after every assessment by using a rubric that considers what evidence was found to indicate understanding on a concept. Simple mistakes that lead to incorrect answers still receive a “B” range grade, and solutions that show progress, but don’t get to the correct answer, still receive a grade in the “C” range. This emphasizes understanding by recognizing a student’s ability to show they know what needs to be done by better rewarding students that show they know what resources they would need to solve a new problem and truly requiring mastery for a grade in the “A” range.

Students should not feel stressed to review all of their notes the night before the exam, but incentivized to *learn* the material over the semester. If a student feels stressed, they should visit during office hours to discuss their studying techniques and how they might make changes toward learning, away from memorization. Students, almost without exception, end up with far better scores at the end of the semester as current performances are simply used as a diagnostic tool to show students what topics they might have more questions about. In other words, initial scores are not permanent and students have opportunities to change them by taking current performance as an *incentive to learn more*.

– *Grading* – Since the scoring of standards is in terms achievement, which might be new for some students, the calculation of this part of the grade may not seem obvious. At the end of the semester, the number of points students earn on standards will be based on the distribution of scores on their first and most recent attempts, with more weight on the most recent score. After each exam period, solutions will be posted to Moodle, and students will receive nuanced feedback in an email that lists their progress for each standard and an updated percentage score. Students are highly encouraged to pick up their marked exams for their review during exam pick-up hours.

– *Conversion to Percentage* – A student’s final percentage score considers their average first attempts and their average second attempts. A percentage score is calculated for first and second attempts as follows:

1. Add points for each standard.
2. Divide by the number of standards tested
3. The standards grade percentage is calculated the following ways and the highest grade is taken:

$$\text{Standards Percentage} = 0.25(\text{1st attempt percentage}) + 0.75(\text{2nd attempt percentage})$$

$$\text{Standards Percentage} = 0.50(\text{1st attempt percentage}) + 0.50(\text{2nd attempt percentage})$$

By the nature of this retesting scheme the weight on the first attempt is chosen to be low thus putting more emphasis on the second attempt. This allows students to use previous attempts as *learning experiences* and to incentivize them to *revisit* materials they need to after receiving nuanced feedback. Students that do well on the first attempts are further incentivized to retain and revisit material which is important as this course is *very cumulative*.

Though students may want their best attempt to count, it generally turns out that the most recent score *is* the best score as initial attempts are often taken as an invitation to revisit a topic more thoroughly. The most recent score is used to encourage this long-lasting learning and discourage simple memorization of a particular topic for an exam.

– *The Reasons* – Grading is very important. It is an integral part of scholastic activity, but it is also something that is under-evaluated and very resistant to change. Grades should mainly reflect academic attainment or understanding of particular objectives, not the accumulation of points. In this class each student has their own grade book, a table of objectives with meaningful scores via the rubric on the previous page. I struggled for a long time with how to do away with grades on individual assignments while still being able to report student progress as a number; this version of standards is born from that process, after much literature

review and feedback from students. This requires a lot of time to implement and requires much effort, both from me and students, but the result empowers students to focus on what they need to learn.

As a statistician, I am acutely critical of measurement. When we talk about learning, is that best measured by the ability to answer a question once at a specified time and date, or measured using the absolutely uncalibrated instrument of points? For example, consider the use of points as the overall indicator of how a student performs on an exam; we lose a great deal of information about that student's understanding. O'Connor and Wormeli (2011) state that "grades should be accurate, consistent, meaningful, and supportive of learning" to correct what Marzano (2000) points out about current grades that "are so imprecise that they are almost meaningless."

We know that overall average grades can be very misleading (Marzano, 2000; O'Connor, 2009, 2010; Reeves, 2010; Wormeli, 2006). Consider a class with an equally weighted midterm and final. If a student earns a 55% on the midterm but learns the material and earns 98% on the final they receive a 76.5%. Unfortunately, the average of these two, a C, is submitted to the registrar. This is not an accurate report of the student's newfound understanding of the objectives of the course. If we want to emphasize learning and understanding, the student's latest performance should be relevant. The student's mastery should be measured along the learning process, not at the beginning. Alternatively, a student can receive a C not because of their lack of understanding but because they were absent and participated infrequently in class. This grading scheme is aimed at being representative.

Taking this course may require a level of effort not required in your usual introductory mathematics course. I wholeheartedly believe, however, that the end product is well worth the effort, particularly in an increasingly data-heavy world. I hope this style of grading allows for better communication, self-evaluation, motivation, and program evaluation (Guskey, 1996). Traditional grading has shortcomings in many of these categories (Brookhart and Nitko, 2008; Guskey and Bailey, 2001; Reeves, 2011).

I understand that this might be different than most students' previous experiences, so please reach out with additional questions.

Overall Grade: A student's overall grade will be a weighted average of their **percentage** scores on homework, standards assessment, and final exam. The overall grade that will be assigned to each student will be decided as follows.

$$\text{Overall Grade} = 0.15(\text{HW}) + 0.5(\text{Standards}) + 0.35(\text{Final})$$

Letter	Final Grade
A	93-100%
A-	90-92.9%
B+	87-89.9%
B	84-86.9%
B-	80-82.9%
C+	77-79.9%
C	73-76.9%
C-	70-72.9%
D+	67-69.9%
D	63-66.9%
D-	60-62.9%
F	< 60%

- **A** range represents above and beyond expectations, excellence with distinction. These are not impossible to achieve but are difficult to come by. While there is merit to hard work and long hours, it does not always guarantee success. Excellence refers to the combined results not just the effort.
- **B** range signifies that a student is meeting the expectations of the course. Good is more common than excellent and should be celebrated as a success.
- **C** range signifies adequate but at the level of expectation. Average is not usually an appealing categorization for those who strive for extraordinary. A grade of C, however, is a respectable point. If students don't want to be categorized as adequate, they must recognize what more is needed, make a plan to achieve that and execute it; I can help with a plan!
- **D** range represents less than adequately equipped to perform the basic functions of the course; just passable. I do recognize that a D may also mean that a student truly does not understand what is expected. Students, in this case, should make an appointment with me to discuss how they might make a plan and take action to achieve at the level they desire to. Course warnings are submitted to the appropriate Administrative Dean for students earning an D in this course at any point during the semester.
- **F** range represents a clear failure to meet the expectations of the class. F represents a lack of effort and interest in the course. This is a cause for deep concern; course warnings are submitted to the appropriate Administrative Dean for students earning an F in this course at any point during the semester.

Note: I do not curve or round grades at the end of the semester. No matter what policy is followed, some could miss a grade boundary by a very small amount. I prefer to keep it straightforward by announcing the sharp grade boundary and strictly following it. I find it helps keeps the process more objective, and does not allow room for subjective grade adjustments, which are almost always unfair. I expect students to use the nature of retesting to "curve" their grade and work with me to *earn* the grade that they want.

A Pedagogical Note:

As a first generation student, I've come to realize that I, perhaps, have a point of view about education that differs with many students where I am perceived as a bit of an individualist. While many things affect performance and learning, your resolve to do well is most paramount to your success; my goal is to work with all of you so that you are *earning* the grade that you want while actually learning something you will use in your life and career including statistics – *you are capable of conquering difficult things*.

A university level course should not be easy, no matter the level of the course. I think the best courses seem challenging but provide students with all the resources to succeed – these challenging courses will also help students learn time management and when they need to reach out for more resources. Bjork(1994) coined this type of course as having “desirable difficulty,” where the learning tasks require a “desirable” amount of effort which improves long-term performance. Students that harness their ability to think independently and solve problems just beyond their reach will fully realize their capabilities, in and outside of the classroom, by becoming better academics and future professionals.

By working hard and learning a lot in high school, students have earned entry into Colgate – a selective and prestigious liberal arts university; students should welcome challenges, as they have the tools to conquer them. Having been exposed to both sides in my professional and academic careers, I can say that a student's exposure to difficult course material and the learned ability to conquer and discuss challenging topics just beyond their reach will be clear and well received by future educators and employers.

This class will be “desirably” challenging. Students should ask questions, read more sources, really dive into what they're learning and their education will be infinitely more valuable when they graduate. Students will become more effective problem solvers and communicators through this process as they will retain the skills learned this semester.

I have designed this course to be challenging but startlingly doable if students engage with the resources for the course, even for students who may be nervous about math or *think* they are not good at math. The course is designed for students of vastly different mathematics experiences to do well – students that need more time to master the material are granted such time through retesting. The course is designed for students to have the opportunity to perform poorly, take it as an invitation to try again – read more, do more problems (even ones that aren't assigned), ask for help; students are granted such opportunities through retesting. Retesting is a tool for learning how to learn and conquering a challenging course that rewards long-term performance and discourages temporary memorization.

In this light, you will find that I will incessantly ask for feedback throughout the semester. The reason I survey students and rigorously review their comments about what could be changed models the behavior I expect from them. Having an accurate snapshot of what I am doing well and what I can work on, in terms of serving students, helps me become a better professor for current and future students. I take all feedback seriously and very often take constructive criticism as an invitation to make changes for the better.

Please ask for what you need. I want all of you to succeed this semester.

Schedule:

Date	Event
01/20/20	First Day of Classes (Special Schedule: 2p-22:20p)
01/21/20	Syllabus and Using R
01/23/20	Data Types, Samples and Populations
01/28/20	Flex Day (Studies & Experiments & Sampling)
01/29/20	End of Drop/Add Period
01/30/20	Margin of Error & Confidence Statements
02/04/20	Experimental Design and Ethics
02/06/20	Summarizing Categorical Data
02/11/20	Summarizing Continuous Data
02/13/20	Margin of Error
02/18/20	Probability
02/19/20	Exam Period One* (Olin Hall 300 5-7p)
02/20/20	Probability
02/25/20	Probability Distributions
02/26/20	Exam Pick Up (McGregory 323 12p-1p)
02/27/20	Probability Distributions
03/03/20	Sampling Distributions
03/05/20	Sampling Distributions
03/10/20	Flex Day
03/11/20	Exam Period Two* (Olin Hall 300 5-7p)
03/12/20	Confidence Intervals
03/14/20-03/22/20	Mid-Term Recess
03/24/20	Confidence Intervals
03/25/20	Withdrawal Deadline (with a grade of W)
03/25/20	Exam Pick Up (McGregory 323 12p-1p)
03/26/20	Confidence Intervals
03/31/20	Confidence Intervals
04/01/20	Exam Period Three* (Olin Hall 300 5-7p)
04/02/20	Hypothesis Testing
04/07/20	Hypothesis Testing
04/08/20	Exam Pick Up (McGregory 323 12p-1p)
04/09/20	Hypothesis Testing
04/14/20	Hypothesis Testing
04/16/20	Introduction to Association
04/21/20	Regression
04/22/20	Exam Period Four* (Olin Hall 300 5-7p)
04/23/20	Regression
04/28/20	Regression
04/29/20	Exam Pick Up (McGregory 323 12p-1p)
04/30/20	Regression
05/07/20	Final Exam (Olin Hall 300 9a-11a)

Note: Dates will likely change as I largely let the class dictate the speed of the course through asking questions and completing extra problems in class.