

Quantitative Skills and Reasoning

MATH 1001-02: CRN 28080 Spring 2021

Syllabus

Note: All links on this page open in a new window or tab.

Course Information

****THIS COURSE IS BEING OFFERED AS A EXTENDED CLASSROOM DELIVERY COURSE - details follow****

Course name and number: MATH 1001-02: Quantitative Skills and Reasoning

Time/Location: MWF 8:00am to 8:50 in University Hall, Room 250

Credit Hours: 3

Course Description:

This course is for students needing practical, comprehensive instruction, with a focus on life applications, college level study abilities, and clear understanding of mathematics for additional coursework, careers, and everyday living.

NOTE: This course is an alternative in Area A of the General Education Core Curriculum and is not intended to supply sufficient algebraic background for students who intend to take College Algebra, Pre-calculus, or Calculus. Students may not receive credit for both MATH 1001 and MATH 1101.

Instructor Information

- Name: Dr. Nehal Shukla
- E-mail: shukla_nehal@columbusstate.edu (*This is the preferred means of contact*)
- Virtual Office Hours Via Microsoft Team (See more information in CougarView)
 - **All Students Welcome:** Mondays and Wednesdays from 10:30am to 12:30pm
 - **By appointment** (please email me to schedule)
- Office: University Hall, Room 208 (*I will not be using this space for meeting with students this semester*)
- Phone: (706) 507-8250)

Tentative Outline of Modules

MODULE 1: Reasoning and Sets

- Inductive and Deductive Reasoning
- Basic Properties of Sets
- Complements, Subsets and Venn Diagrams
- Set Operations
- Applications of Sets

MODULE 2: Logic

- Logic Statements and Quantifiers
- Truth Tables, Equivalent Statements, and Tautologies
- Conditional and Biconditional Statements

MODULE 3: Functions

- Linear Functions
- Linear Models
- Quadratic Functions
- Exponential Functions
- Logarithmic Functions

MODULE 4: Financial Mathematics

- Simple Interest
- Compound Interest

MODULE 5: Combinatorics, Probability, and Statistics

- The Counting Principle
- Permutations and Combinations
- Probability and Odds
- Measures of Central Tendency
- Measures of Dispersion

Deadline to withdraw with a WP: February 24, 2021

Required/Recommended Textbooks and Materials

Required Materials

- Textbooks: None, but you can access some supplemental information here:
<https://houbinfang.wixsite.com/csumath>

- Equipment: You will need internet access and a way to access **CougarView**, your **CSU gmail**, and **Microsoft Teams**. IF YOU DO NOT HAVE REGULAR ACCESS TO A COMPUTER, PLEASE CONTACT ME RIGHT AWAY. Please bring your own laptop if you want to join this class in person.

Student Learning Outcomes

General Education (Areas A-F) Student Learning Outcomes

By the end of this course you should be able to:

- Solve problems by analyzing:
 - a given dataset, formulating a representative model, and then using the model to predict additional related values of the variables;
 - a given graph and identifying behaviors of one variable as influenced by changes in the other variable.
- Model and interpret quantitative problems from authentic contexts and everyday life situations.

Course Structure and Student Obligations

This course will use an extended classroom instructional model. In order to limit exposure to others in the midst of this public health crisis, Columbus State has asked instructors to be creative with our instruction and, while maintaining current *course* student caps, limit the number of students working together in one space to a *social distancing* cap mandated by room size.

With this in mind, I have created a team-based course that functions whether or not you are present in person. Regardless of your presence in class, you will be logging into a Microsoft Teams meeting and breaking into small groups to work through application-based activities. If you prefer to attend in-person with your laptop in the classroom, that is perfectly fine, but I will have to limit it to 20 people (Last name starts from a letter A-K) on Wednesdays and 20 people (Last name starts from a letter L-Z) on Fridays. On Mondays(except first day of class), everyone will meet virtually. I will be sharing a virtual Sign Up sheet for the Wednesday / Friday in person option.

Please note that those students who have approval to take the course 100% online will have the option to attend all three class days in our virtual space. *Please email me if you wish to take the course 100% online. Communication is vital at the best of times, but especially so now.*

I have posted a schedule of topics above and a more specific version in **CougarView**. **Please note that there are certain dates that you will have assessments to take that do not require synchronous (virtual or in-person) attendance. See a complete list of those dates CougarView.**

For each module, it is your responsibility to:

- Watch the lecture videos for the sections being covered.
- Complete an Individual Readiness Assessment.
- Attend class as scheduled, whether virtually or in-person.
 - Participate in Group Activities.
 - Complete a Group Readiness Assessment.
 - Complete a Peer Assessment.
- Optional:
 - Attend virtual office hours (see times above).

It is important that you view lecture videos PRIOR to completing the Individual Readiness Assessment. Sometimes this will require work over the weekends. See the schedule ([In Cougarview](#)) and plan your time accordingly.

Please note: Lecture videos were created in collaboration with two of my colleagues. At various points in the semester, the lectures will be given by me, by Dr. Houbin Fang, and Ms. Elizabeth Mcinnis.

Grading

- *Individual Readiness Assessment (IRA)*
 - For each of the five modules, you will watch pre-recorded lecture videos and take notes. You will then complete a 15 question Individual Readiness Assessment. These assessments occur at the beginning of each two-week module, on a Monday. You will have the 12-hour window from noon until midnight on the first Monday of each Module to complete the 1-hour, 15 question (multiple choice) assessment. You will not have to attend class on those dates (see list [in Cougarview](#)).
- *Group Participation*
 - Once each group member has completed the IRA, groups will discuss and work through a series of activities together via Microsoft Teams (breakout rooms) over the course of the two-week module. Participation (and thus, attendance) is required. 75% of this grade (which is itself 20% of the overall grade) is attendance based, 25% will come from a peer group member assessment. *Please note that while you are not required to use your camera, communication within groups will be significantly improved if discussion happens with at least a mic. The chat can be used in a pinch, but I strongly encourage at least the use of a mic, if not the camera as well.*
- *Group Readiness Assessment (GRA)*
 - At the end of each of the five modules, you will complete a 15 question Group Readiness Assessment together with your group. You must be present in the meeting to earn points for the GRA.
- *MidTerm Exam*

- After Modules 1 and 2, we will have a ~2 week review period and then a cumulative MidTerm Exam. This exam will take place in CougarView on the date listed below. This exam will be weighted as shown below.
- *Cumulative Final Exam*
 - Your final exam will also take place within CougarView during the final exam period in May. It will cover all material for the semester and will be preceded by a 1 week review module. It will take place and be weighted as described in the table below.

Graded Learning Activities and Exams	Percentage
Individual Readiness Assessments (5 @ 15 points each)	15%
Group Participation (5 @ 20 points each)	20%
Group Readiness Assessment (5 @ 30 points each, 1 lowest score will be dropped)	30%
Midterm Exam (Friday, March 12)	15%
Final Exam (between Wednesday 5/5 12AM and Thursday 5/6 11:59PM)	20%
Total Possible	100%

Percentage Range	Final Grade
90-100%	A
80-89%	B
70-79%	C
60-69%	D
59% and below	F

Make-up Policy

I typically do not allow students to make up tests. However, with the special circumstances surrounding this semester, I will handle these situations on a case by case basis. If you must miss a test due to illness, you need to contact me BEFORE the time the test is scheduled to discuss options. I must be fair to everyone, so I will require that you accompany your request with a doctor's note saying that you are ill and have been seen by a physician. We will discuss options at that time.

Expectations

WHAT YOU CAN EXPECT FROM ME

- I will provide feedback and post grades within one week of submission dates.
- I will respond to your e-mail within 24 hours.

- I will be available to discuss questions about the course with you (see Instructor Information for availability).

WHAT IS EXPECTED FROM YOU

- You are expected to be fully prepared to participate in the scheduled activity for each class.
- You are expected to complete the assessments when due, or to request an extension in advance.
- You are expected to be respectful to both your peers and your instructor in all interactions.
- You are expected to regularly check your official CSU email account, and to communicate with me in a professional manner.

Course Communication

Virtual Office Hours

I would like to make clear from day one my willingness to help you succeed in this course. I cannot help you if you don't let me know that you are in need of help, so I encourage you to make contact with me if you feel you are struggling. Email is always a great option, and speaking to me before or after class is also good. But if you have content questions, the best place and time to get those answered are during Virtual Office Hours (see above for times). Please make time to attend if you are feeling confused or behind at all. I want to help! Please tell me when you need it.

Tutoring

The Academic Center for Tutoring (ACT) at CSU offers free tutoring for all enrolled CSU students in a variety of courses as well as in writing and resume/cover letter preparation. Tutors can also help students with online learning. For safety in the Spring 2021 semester, all ACT services will be offered online. An appointment is required. More information is available on the ACT website: <https://act.columbusstate.edu/>. If you have questions you can email act@columbusstate.edu or call 706-507-8646. If you cannot participate online and need a face to face appointment, contact the ACT.

NETIQUETTE

It is expected that you will demonstrate a positive attitude and courtesy toward other participants and abide by the netiquette guidelines posted on the [Distance Education Standards and Guidelines web page](#). Netiquette principles include the following:

- Practicing manners and civility in all communication with your Instructor and classmates.

- Respecting your Instructor in all communication ('Dear Professor xxx' not 'Hey').

E-MAIL

- Use your official CSU account for all e-mail communication (please *do not* use CougarView email - that is much harder to respond to).
- Follow common sense in writing and sending e-mail. As this course is a semi-public space, be cautious about sharing too much personal information such as address or phone number.
- Read and think about e-mail before sending. Email is a permanent record of your communication.
- As a rule with all e-mail communication, always identify yourself and the course title.

Course Policies

ACADEMIC HONESTY

Students: Please refer to the [CSU Student Handbook \(2020-2021\)](#) for additional information on academic honesty.

All students are expected to recognize and uphold standards of intellectual and academic integrity. As a basic and minimum standard of conduct in academic matters that students be honest and that they submit for credit only the products of their own efforts. Both the ideals of scholarship and the need for fairness require that all dishonest work be rejected as a basis for academic credit. They also require that students refrain from any and all forms of dishonorable or unethical conduct related to their academic work.

In an effort to foster an environment of academic integrity and to prevent academic dishonesty, students are expected to discuss with faculty the expectations regarding course assignments and standards of conduct. In addition, students are encouraged to discuss freely with faculty, academic advisers, and other members of the academic community any questions pertaining to the provisions of this policy.

ADA AND 504 STATEMENT

If you have a documented disability as described by the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973, Section 504, you may be eligible to receive accommodations to assist in programmatic and physical accessibility. We recommend that you contact the Center for Accommodation and Access located in Schuster Student Success Center, room 102, 706-507-8755 as soon as possible. The Center for Accommodation and Access can assist you in formulating a reasonable accommodation plan and in providing support. Course requirements will not be waived but accommodations may be able to assist you to meet the requirements. Technical support may also be available to meet your specific need. For more information go to [CSU Center for Accommodation and Access](#).

Title IX Discrimination

Under Title IX of the Education Amendments of 1972, harassment based on sex, including non-consensual sexual contact, stalking, sexual exploitation, domestic and dating violence, and harassment because of pregnancy or related conditions, is prohibited. If a student would like to file a complaint for Title IX discrimination or has any questions, please contact the CSU Title IX Coordinator (Lauren A. Jones, J.D. 4225 University Avenue, Schuster 221, Columbus, GA 31907, jones_lauren3@columbusstate.edu, 706.507.8757) and/or the Office of Civil Rights (Atlanta Office, U.S. Department of Education, 61 Forsyth Street S.W., Suite 19T10, Atlanta, GA 30303-8927, 404.974.9406, OCR.Atlanta@ed.gov).

Social Distancing / Mask Policy

For safety, while physically present, all individuals should remain 6+ feet apart at all times. Face coverings and physical distancing will be required this spring for anyone on campus. The face covering requirement will be enforced according to our student code of conduct. Students unable to wear face coverings due to other health challenges may request accommodations through our Center for Accommodation and Access. The first step is completing the CAA COVID intake form at <https://caa.columbusstate.edu/surveys/covid-intake-form.php> or emailing CAA@columbusstate.edu for guidance.

Emotional and Mental Health STATEMENT

Your emotional and mental health is very important and can affect your ability to meet your academic responsibility. Part and full time students have free access to mental health counseling through the CSU [Counseling Center](#). If you begin to experience any sort of emotional concerns such as anxiety, depression, or significant life events that are negatively impacting you, please seek help at the counseling center as quickly as possible. Please know that you will find a friendly "virtual" face for your appointments. Hours of operation are 8:00AM to 8:00PM Monday and Tuesday and 8:00AM to 5:00PM Wednesday through Friday. You can call to set up an appointment: 706-507-8740. If you are in crisis during non-business hours, please call the Georgia Crisis Line: 1-800-715-4225.

COUGARVIEW ACCESSIBILITY STATEMENT

From D2L website: "At D2L we believe learning technologies should never limit learning opportunities. Our accessibility program is tightly integrated with our research and development lifecycle to ensure our tools are standards compliant and easy for people to navigate and understand using the assistive technologies and devices that support their needs... At Desire2Learn we use WAI guidelines, such as the Web Content Accessibility Guidelines 2.0 (WCAG 2.0), Authoring Tool Accessibility Guidelines 2.0 (ATAG 2.0) and Accessible Rich Internet Applications Suite (WAI-ARIA) to ensure our designs are consistent with international objectives." For more information go to [D2L Accessibility](#).

COURSE ATTENDANCE POLICY

Accessing class regularly and participating in all class activities is required, even if you have permission to take the class 100% online. For everyone:

- Watch lecture videos in a timely manner.
- Complete the IRA as scheduled.
- Attend class meetings as scheduled .
- Inform your instructor as soon as possible if you encounter problems meeting your assignment deadlines OR if you are having problems with technology as that is such an important part of this class.

HOUSE BILL 280

Whether a fully online, blended classroom, or on-ground classroom student, you should become familiar with "campus carry" legislation. For information regarding HB 280 (Campus Carry), please refer to [House Bill 280](#). It is the permit holder's responsibility to know and comply with the law.

STUDENT RIGHTS AND RESPONSIBILITIES

Information regarding student rights and responsibilities can be found in the [CSU Student Handbook](#).

Time Commitment

The amount of time it will take you to complete the work for the course will depend on many factors, which will vary with each individual. Students can expect to spend anywhere from 6 - 12 hours per week on this course. Consult with the course Calendar and your instructor to be sure you are on schedule, keeping up with the material and submitting assignments and assessments on time.

Technical Requirements

Generally speaking, you should be proficient in:

- Composing an e-mail
- Attaching a file
- Uploading a file
- Downloading a file
- Saving a file to computer or USB device
- Using a Webcam
- [See the CougarVIEW Student Guide](#)

Calculator

You will need a graphing calculator (TI 84 or TI-84 plus), You can download app (less than 5\$) on your phone or computer that is also allowed.

HARDWARE REQUIREMENTS

[See the System Checker here.](#) (GeorgiaVIEW's system checker is compatible with CougarVIEW.)

SOFTWARE REQUIREMENTS

- An office suite such as Microsoft Office or Open Office
 - Microsoft Office 365 is available free to all CSU students at [Microsoft Office 365](#).
 - [OpenOffice](#) can be downloaded for free.
 - Microsoft Teams will be required. See details in CougarView.
 - To open a PowerPoint file without the PowerPoint application, explore the options listed on the Microsoft [Supported versions of Office viewers](#).
- To open PDF files you might need [Acrobat Reader](#)

Browser Plugins (Pdf files, QuickTime files, Mp4 files) can usually be obtained at the browsers website.

- [Google Chrome](#)
- [Firefox](#)
- [Safari](#)

You can always learn more about how to use CougarVIEW by selecting CougarVIEW (D2L) Student Guide under the Technical Resources menu, located on the right side of the homepage. CougarVIEW runs on Desire2Learn's course management system Brightspace. The Student Guide is available also through the Resources navigation menu. You can learn more about how to use the system while visiting the site.

If you cannot solve your problem after reviewing the knowledge base help pages, you can call help center 24-7 and talk to a Help Center agent. The number is 1-855-772-0423.