COURSE SYLLABUS for IN-PERSON SECTIONS MATH 1552 - INTEGRAL CALCULUS - SUMMER 2023 SCHOOL OF MATHEMATICS GEORGIA INSTITUTE OF TECHNOLOGY

Welcome to Integral Calculus! This course is designed to introduce you to the fundamental concepts of integration and infinite series. All our students play an important role in our educational mission. We hope that you will find this to be a useful, fundamental course for your future studies.

We want to support your success in this course! If there is anything you would like us to know about your situation, please contact your instructor directly.

Course Description and Learning Outcomes

Course Title: Integral Calculus

Learning Objectives:

- Students will understand the geometric concept of a definite integral and learn how to approximate the integral using Riemann sums.
- Students will be able to evaluate indefinite and definite integrals algebraically using various integration techniques, including substitution, integration by parts, trigonometric substitution, trigonometric identities, and partial fractions.
- The idea of convergence will be applied to improper integrals and infinite series.
- Given an infinite series, students can analyze the function to determine if the series converges by applying an appropriate convergence test (divergence, comparison, integral, ratio or root).
- Taylor series will be constructed for various functions and will be applied to numerical approximation problems and definite integrals.
- Students will understand the proper usage of mathematical notation in relation to the above topics.

Textbook: Thomas, Calculus: Early Transcendentals, 14th ed. We will cover topics in Ch. 5, 6, 7, 8, and 10.

Important Websites:

Course Information: http://canvas.gatech.edu (*required*)

Textbook/Homework Access: <u>http://www.mymathlab.com</u> (*highly recommended, access through Canvas*)

On-line Discussions: <u>www.piazza.com</u> (highly recommended, access through Canvas)

MyMathLab: We will be utilizing MyMathLab (MML) for homework through a joint code for the Thomas *Calculus* text and the Lay *Linear Algebra* text. Our MML course is linked to Canvas. Please login to your Canvas account, then go to the "Pearson Access" tab on the left-hand menu. From the MyMathLab page, you can login or create your MyMathLab account to access our course. You should not need to enter a course ID.

Important notes on MML:

• If you already have an account on MyMathLab using this combined textbook within the past 18 months, then you do not need to purchase a new code. Login to your MyMathLab account through Canvas to add to our course.

• If you do not have a MyMathLab account using the Thomas or Lay textbooks, or if your account is over 18 months old, you will need to purchase a new code for our course.

When signing up for MyMathLab, it will be immensely helpful (for grading purposes) if you will set your STUDENT ID to your USERID for the GT system (i.e., your Canvas USERID, as in "gburdell3")

Course Organization

This course will consist of lectures on MWF and studios on TR. During lectures, the instructor will present new material and example problems to the students. The teaching assistants will help students to apply this material during problem-based studio sessions.

For lectures and studios, the instructors and TAs hope to provide an in-class experience for students as much as possible this semester. However, at times it may be necessary for classes to move online due to illness of the instructor/TA. Lecture recordings will be available to accommodate students who cannot physically attend class. Due to the interactive nature of studio classes, studio sessions are not recorded.

Course Requirements and Grading (*In-person Sections ONLY*)

HOMEWORK: Classwork HW assignments will be posted on MyMathLab each week. The assignments are counted towards the classwork grade and questions from the homework may appear on quizzes or exams. For students who choose not to purchase MyMathLab and wish to obtain coursework points through the other methods, we have provided a list of problems to try from the textbook to practice for quizzes and exams.

CLASSWORK POINTS(*): Classwork points (CP) will be divided into three categories: MyMathLab, studio attendance, and quizzes. Classwork points (CP) will count for 20% of the overall class grade.

ONLINE MYMATHLAB PROBLEMS: Homework assignments will be assigned through MyMathLab. To calculate the CP points you have accumulated for MyMathLab assignments, total the Canvas gradebook MML points and divide by 4. Students may work together, use calculators, and seek help from the instructional staff when solving homework problems, but must submit their own work. Homework is due by 11:59 PM on the same day that studio that covers the material, beginning in the second week of classes. Late assignments will be accepted with a 20% deduction. Note that the final deadline for MyMathLab homework is the last day of studio and due to institute policy no work done during reading week can count towards your grade.

PRE-LECTURE VIDEOS: Pre-lecture recordings have been posted on Canvas. Students are expected to watch the videos prior to each scheduled lecture. Short quizzes on the lecture material will be embedded into the videos but this component will not be graded.

START-OF-SEMESTER SURVEY AND SYLLABUS QUIZ: A short welcome survey and a syllabus quiz will be posted on the first week of class. Each of these assessments will count 10 CP points toward the classwork grade.

STUDIO PARTICIPATION: The class participation grade is based on attendance in the studio sections. Active participation in the studio will earn you 1 CP point per studio. Students who do not actively participate, who are disruptive, or who come late or leave early will get a zero for the day for the participation grade. Students requiring a make-up exam lose the attendance point for the day.

IN-STUDIO QUIZZES: Beginning on the second week of class, a quiz will be administered during the last 20 minutes of the studio classes on Thursdays for all non-exam weeks. The questions will be based on the homework assignments posted on MyMathLab, examples from class lectures, or studio worksheets. Quizzes are closed book, closed notes, and no calculators are allowed. Each quiz will be graded out of a maximum 20 CP points.

Breakdown of the Classwork Grade: There are a maximum of 197 possible CP points for the classwork grade. To compute your classwork average, we will divide the number of CP points earned by 130. Scores above 100% are not allowed, but extra CP points will be converted to final exam bonus points at a rate of 1 extra CP point = 0.05 bonus points on the student's final exam score, for a maximum of 3.35 bonus points added to the final exam score (out of 100).

Assignment	Maximum Number of Points
Online MML Problems	37 CP (14 assignments, 148 points total divided by 4)
Start-of-semester survey and Syllabus Quiz	20 CP (10 points each)
In-Studio Quizzes	120 CP (6 quizzes, 20 points each)
Studio Attendance	20 CP (1 point per day for active participation)
Maximum total points available:	197 CP possible

TESTS(*): We will have three in-person tests this summer. In-person tests will be a mix of free-response, short answer, and true/false/multiple-choice questions and will require you to show your work clearly, using correct mathematical notation. All tests will be 75 minutes in length and will be administered in studio.

- Test 1: June 8
- Test 2: June 29
- Test 3: July 20

No books, notes, calculators, or other electronic devices are allowed during the tests. Any evidence of cheating or other violations of the Georgia Tech Honor Code will be submitted directly to the Dean of Students and will result in a zero for the assignment.

Showing work is required on all free-response questions. As writing mathematics properly is part of learning Calculus, points will be deducted for submissions with the correct answer but using incorrect mathematical notation or invalid arguments.

FINAL EXAM: The final exam will cover all course materials. All students must take the final examination. The final exam will be administered during our final exam period on <u>Friday, July 28, 11:20 AM – 2:10PM</u>.

Assessment	Percentage
Classwork(*)	20%
Tests(*): • Highest grade, 20% • Middle grade, 20% • Lowest grade, 15%	55%
Final Exam	25%

Your final average will be computed as follows: *in-person students only*

Letter grades will be determined based on the following intervals. You are guaranteed a minimum of the following scale, but do not expect any deviation:

A: 90% and higher, B: [80%, 90%), C: [70%, 80%), D: [60%, 70%), F: [0%, 60%).

Adjustments, if any, to the above scale will be decided after the final exam, after course grades are calculated.

Midterm grades will be assigned on **June 14**. A satisfactory grade will be assigned to all students with a midterm average of 70% or higher.

Extra credit: If the class completes the course instructor opinion survey (CIOS) with a response rate of 85% or higher by the day after the final exam, then five (5) bonus points will added onto the final exam grade. Extra credit is also built into the classwork category. Students can earn up to an additional 3.35 bonus points on the final exam from the classwork category.

Class Policies

In-class Attendance: You are expected to come prepared and actively participate in the class sessions. In the event of an absence, you are responsible for all missed materials, assignments, and any additional announcements or schedule changes given in class.

Please show courtesy to your fellow classmates and instructor or teaching assistant by adhering to the following class rules:

- Turn off all laptops, cellular phones, and other electronic devices, unless you have a *documented* need to use such devices for note-taking, during class.
- Come to class on time and stay for the entire class period.
- Refrain from conversing with your fellow students.
- Put away any reading materials unrelated to the course.

Heath-Related Considerations: Please see information about health-related concerns at

<u>http://health.gatech.edu/coronavirus/students</u>. In particular, all students are asked to perform a selfassessment prior to coming to campus each day. Please do not come to an in-person lecture or studio if you are sick. Students are expected to be familiar with and abide by the Institute guidelines, information, and updates related to Covid-19. Find campus operational updates, Frequently Asked Questions, and details on campus surveillance testing and vaccine appointments on the <u>Tech Moving Forward site</u>.

Digital Proctoring: In the case that we need to go online for any reason, this course will be using digital

proctoring for online exams. The following are required of students:

- Review important Honorlock technical requirements and Student FAQs.
- Students must have a broadband internet connection.
- Students must have a webcam and microphone.
- Students must have a secure private location to take an exam.
- Students will be asked to provide a picture ID and take a picture of themselves via a webcam as part of the exam process.
- Honorlock is not compatible with Linux OS, Virtual Machines, tablets, or smartphones.
- Honorlock requires the installation of Google Chrome and the Honorlock Chrome extension
- An additional device may be necessary in order to simultaneously access Honorlock and MS Teams

If your current situation does not allow for Honorlock proctoring, please contact your instructor as soon as possible to discuss alternate proctoring arrangements.

Academic Dishonesty: All students are expected to comply with the Georgia Tech Honor Code (the honor code can be found at <u>http://osi.gatech.edu/content/honor-code</u>). Any evidence of cheating or other violations of the Georgia Tech Honor Code will be submitted directly to the Dean of Students and result in a zero on the assignment. If the cheating occurs on a quiz, the total quiz cap for the student will be lowered by 10 points, meaning that the maximum score the student can get in the quiz category of their classwork grade is 90%, even with full credit on the other 11 quizzes. Cheating includes, but is not limited to:

- Using a cell phone, calculator, books, or any form of notes on tests or quizzes.
- Collaborating during an online test or test.
- Using any third-party websites (such as, but not limited to, Symbolab, Integral-Calculator, Chegg and CourseHero) to obtain answers to quiz or exam problems.
- Copying directly from **any** source, including friends, classmates, tutors, internet sources, or a solutions manual.
- Allowing another person to copy your work.
- Taking a test or test in someone else's name, or having someone else take a test or test in your name.
- Asking for a regrade of a paper that has been altered from its original form.

Regrading of Papers: If a problem on your exam has been graded in error, you must submit a regrade request through Gradescope within *one week* after the assignment has been returned in Gradescope.

- A regrade request should only be submitted if you have done something correct on your paper that has been marked as incorrect.
- You must indicate in your regrade request which rubric item was not applied correctly.
- *Papers submitted for regrades could be adjusted up or down*, so please make sure to check the solutions before requesting a regrade.
- Quizzes are not eligible for regrade requests.

Make-Up Exams: Students unable to take a midterm exam due to sickness or emergency may be eligible for a make-up exam if your instructor is notified prior to the class period and provided with a reasonable, **written** confirmation of your absence. Any make-up exams must be completed before the corresponding assessment has been graded and returned to other students. A common make-up time will be set for all students who missed the same assessment. If an in-person makeup cannot be completed in this time period, documentation from the Dean of Students excusing the entire period from the missed exam to the missed make-up exam will be required in order to excuse your exam score, and in this case the missing exam score will be replaced by the average of your other midterm exams. Students will **not be permitted** to take more

than one make up exam in any circumstances, even if you are sick. In the case you miss two exams, the second exam will be given a score of zero, so please do not request a make-up exam unless you are really unable to attend the exam. If you will miss an exam due to a university-sponsored event or athletics, please provide your instructor with the official documentation in advance. The final exam and quizzes are not eligible for make-ups. Students who miss the final exam due to travel plans will receive a zero. Students who miss the final exam for a valid reason might qualify for an **incomplete**. Incompletes can only be assigned under specific circumstances that are defined on the Office of the Registrar's website: https://registrar.gatech.edu/info/incomplete-grades

Note that only students unable to take the exam due to sickness or emergency are eligible for a make-up exam. Internship responsibilities, appointments, or travel plans are not valid excuses to request a make-up exam or have the score excused. Please plan your semester accordingly.

Students with Disabilities and/or in need of Special Accommodations: Georgia Tech complies with the regulations of the Americans with Disabilities Act of 1990 and offers accommodations to students with disabilities. If you are in need of classroom or testing accommodations, please make an appointment with the Office of Disability Services to discuss the appropriate procedures. More information is available on their website, <u>http://disabilityservices.gatech.edu/</u>. Please also make an appointment with your instructor to discuss your accommodation, if necessary.

Calculators: While you may need a calculator for help with some of the homework problems, the use of calculators is NOT ALLOWED on quizzes or exams.

Announcements: You are responsible for obtaining any announcements or materials placed on the course *Canvas pages*. Please see the list of important websites on the first page of the syllabus.

Additional Help: Asking questions is a key to success! Free "drop-in" help is available in the Math Lab. The Math Lab is staffed by math Graduate Teaching Assistants (GTAs). A live schedule can always be found on the Tutoring & Academic Support website: <u>https://tutoring.gatech.edu/drop-in/</u>. Any questions about the Math Lab can be directed to <u>dropintutoring@gatech.edu</u>.

Campus Resources for Students

In your time at Georgia Tech, you may find yourself in need of support. Below you will find some resources to support you both as a student and as a person.

Academic support

- Tutoring and Academic Support: <u>https://tutoring.gatech.edu</u>
 - o 1-to-1 tutoring <u>https://tutoring.gatech.edu/tutoring/</u>
 - Peer-Led Undergraduate Study (PLUS) <u>https://tutoring.gatech.edu/plus-sessions/</u>
 - Academic coaching: <u>https://advising.gatech.edu/academic-coaching</u>
- Residence Life's Learning Assistance Program
 <u>https://housing.gatech.edu/learning-assistance-program</u>
 - \circ $\,$ Drop-in tutoring for many 1000 level courses
- OMED: Educational Services (<u>http://omed.gatech.edu/programs/academic-support</u>)
 - o Group study sessions and tutoring programs
- Communication Center (<u>http://www.communicationcenter.gatech.edu</u>)
 - Individualized help with writing and multimedia projects
- Academic advisors for your major

http://advising.gatech.edu/

Dean of Students Office, CARE Center, Counseling Center, Stamps Health Services, and the Student Center: The <u>CARE Center</u> and the <u>Counseling Center</u>, Stamps Health Services, and the Dean of Students Office will offer both in-person and virtual appointments. Student Center services and operations are available on the <u>Student Center</u> website. For more information on these and other student services, contact the Dean of Students or the <u>Division of Student Life</u>.

- The Office of the Dean of Students: <u>http://studentlife.gatech.edu/content/services</u>; **404-894-6367**; Smithgall Student Services Building 2nd floor
 - You also may request assistance at <u>https://gatech-advocate.symplicity.com/care_report/index.php/pid383662?</u>
- Counseling Center: <u>http://counseling.gatech.edu;</u> 404-894-2575; Smithgall Student Services Building 2nd floor
 - Services include short-term individual counseling, group counseling, couples counseling, testing and assessment, referral services, and crisis intervention. Their website also includes links to state and national resources.
 - Students in crisis may walk in during business hours (8am-5pm, Monday through Friday) or contact the counselor on call after hours at **404-894-2204**.
- Students' Temporary Assistance and Resources (STAR): <u>http://studentlife.gatech.edu/content/need-help</u>
 - Can assist with interview clothing, food, and housing needs.
- Stamps Health Services: <u>https://health.gatech.edu</u>; **404-894-1420**
 - Primary care, pharmacy, women's health, psychiatry, immunization and allergy, health promotion, and nutrition
- OMED: Educational Services: <u>http://www.omed.gatech.edu</u>
- Women's Resource Center: <u>http://www.womenscenter.gatech.edu</u>; 404-385-0230
- LGBTQIA Resource Center: <u>http://lgbtqia.gatech.edu/;</u> 404-385-2679
- Veteran's Resource Center: <u>http://veterans.gatech.edu/;</u> 404-385-2067
- Georgia Tech Police: 404-894-2500

Statement of Intent for Inclusivity

As a member of the Georgia Tech community, I am committed to creating a learning environment in which all of my students feel safe and included. Because we are individuals with varying needs, I am reliant on your feedback to achieve this goal. To that end, I invite you to enter into dialogue with me about the things I can stop, start, and continue doing to make my classroom an environment in which every student feels valued and can engage actively in our learning community.

Please note: *items on the syllabus and course schedule are subject to change. Any changes to the syllabus and/or course schedule will be relayed to the students in class and through e-mail.*

Important Dates Throughout the Term

15 May – First Day of Classes
29 May – Memorial Day (No Class)
8 June – Test #1
19 June – Juneteenth (No Class)
29 June – Test #2
1 July – Last day to withdraw with a grade of "W"
3-4 July – Independence Day Recess (No Class)
20 July – Test #3
24-25 July – Final Instructional Days
28 July – Final Exam 11:20am – 2:10pm

Section	Instructor	Email Address	Class Times and Locations	Instructor Office Hours
G	Sal Barone	sbarone@math.gatech.edu	MWF 12:30 PM - 1:45 PM	Tu/F: 11:00 AM – 12:00 PM
				Skiles 013
			Klaus 1443	https://gatech.zoom.us/my/sbarone7
				(Zoom by request)

Math 1552 Instructor Contact Information

Math 1552 Teaching Assistant Contact Information

Section(s)	TA	Email Address	Studio Times and Location	Office Hours
G01	Trevor Gunn	tgunn@gatech.edu	TR 12:30-1:45, Van Leer E283	Wednesday 2pm-3pm
				Clough 280 (Math Lab)
G02	Jiahui Cheng	jcheng328@gatech.edu	TR 12:30-1:45, Van Leer C456	Monday 3pm-4pm
				Clough 280 (Math Lab)
Q01	Yosia Nurhan	yosia@gatech.edu	TR 12:30-1:45, TBD	Tuedsay 2pm-3pm
				Zoom (see Canvas homepage)

Tentative Course Schedule

Please use this as an approximate class schedule; section coverage may change depending on the flow of the course. Review days/topics may be changed or cancelled in the event of inclement weather or campus closures.

Week	Mon	Tues	Wed	Thurs	Fri
1	May 15	May 16	May 17	May 18	May 19
	Introduction to Math 1552	Calculus review	Sections 5.1-5.2: Area	WS 5.1	Section 5.3: The Definite
	Section 4.8: Anti-	WS 4.8	under the curve	WS 5.2-5.3	Integral
	derivatives				
2	May 22	May 23	May 24	May 25	May 26
	Section 5.3: The Definite	WS 5.2-5.3 cont.	Section 5.4: The	WS 5.3 cont.	Section 5.5: Integration by
	Integral cont.	WS 5.3	Fundamental Theorem of	Quiz #1 (4.8, 5.1-5.3)	Substitution
	Section 5.4: The		Calculus cont.		
	Fundamental Theorem of		Welcome survey and		
2	Calculus May 20	May 20	Synabus quiz ane:	Jun 1	Jun 2
3	May 29	Way 50	Nay 51 Section 5.6: Area	Juli I WS 5 5 5 6 cont	Section 8.2. Integration by
	No CLASS Memorial Day	WS 5.5 5.6	Between Curves	WS 5.5-5.0 COIII.	Derts
	Memorial Day	WS 5.5-5.0	Detween Curves	0.00 = 0.0	Faits
4	True 5	Inc. (Lee 7	Quiz #2 (3.4-3.0)	Less 0
4	Juli J Section 9.2: Decrease of		Juli /	Juli 0	Section 8.4. Triconomotric
	Section 8.5: Powers of	WS 8.2	Review for fest f	1 est #1 (4.0, 5.1-5.0, 9.2, 9.2)	Substitution
5	Ing Functions	W S 8.5	True 14	0.4-0.3)	
2	Jun 12 Section 9.5. Dorticl		Jun 14 Section 8 9. Immediate		Jun 10 Section 10.1. Secure 200
	frontions	WS 0.4 WC 9.5	Integrals	WS 0.3, 4.3	Section 10.1: Sequences
	Section 4.5. L'Henitel's	W 5 8.3	integrais	Quiz #5 (8.4-8.5)	
6	Jun 10	Jun 20	Jup 21	Lun 22	Lup 22
0	NO CLASS		Section 10.2: Infinite	WS 10 1 cont	Section 10.3: Integral Test
	Iuneteenth	WS 0.0	Series	$O_{\text{uiz}} #A (A 5 8 8 10.1)$	Section 10.5. Integral Test
7	Jun 26	WS 10.1	Jun 28	$\frac{1}{1000} \frac{1}{1000} \frac{1}{1000$	Jup 30
· ·	Section 10.4: Comparison	WS 10 2	Section 10.5: Patio and	Tost #2 (8 1-8 5 1 5	Section 10.5: cont
	Tests	WS 10.2 WS 10.3	Root Tests	88 10 1-10 3)	Section 10.6: Alternating
	10363	WB 10.5	Review for Test 2	0.0, 10.1-10.3)	Series
8	Jul 3	Inl 4	Jul 5	Jul 6	Jul 7
Ŭ	NO CLASS	NO CLASS	Section 10.6: cont.	WS 10.4	Section 10.7. cont.
	Independence Day	Student Recess	Section 10.7: Power series	WS 10.5	
				Ouiz #5 (10.4-10.5)	
9	Jul 10	Jul 11	Jul 12	Jul 13	Jul 14
	Sections 10.8-10.9: Taylor	WS 10.6	Sections 10.8-10.9. cont.	WS 10.8-10.9	Sections 10.8-10.9, cont.
	polynomials and series	WS 10.7	~~~~,~~,~~~~	Quiz #6 (10.6-10.8)	
10	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21
	Sections 10.8-10.9, cont.	WS 10.8-10.9	Sections 10.8-10.9, cont.	Test #3 (10.4-10.9)	Section 6.1: Volumes by
		(3 versions)	~~~~,~~		Disks
11	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28
	Section 6.1: Volumes by	WS 6.1-6.2	Reading Day		FINAL EXAM
	Cylindrical Shells	Last day for MML			<u>11:20 AM – 2:10 PM</u>
	Final Review	homework			
12	Jul 31	Aug 1	Aug 2	Aug 3	Aug 4
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APPENDIX for QUP ONLINE SECTIONS ONLY MATH 1552 - INTEGRAL CALCULUS - SUMMER 2023 SCHOOL OF MATHEMATICS GEORGIA INSTITUTE OF TECHNOLOGY

This page is for the QUP online sections only. The above syllabus will be modified as follows for the QUP online sections to allow for a greater flexibility of attendance and class participation.

Course Requirements and Grading (*QUP Online Sections ONLY*)

CLASSWORK POINTS(*): Classwork points (CP) are divided into two categories: MyMathLab and quizzes. Classwork points (CP) will count for 5% of the overall class grade at the end of the term.

ONLINE MYMATHLAB PROBLEMS: One change: To calculate the CP points you have accumulated for MyMathLab assignments, total the Canvas gradebook MML points and divide by 3 instead of 4.

PRE-LECTURE VIDEOS: No change.

START-OF-SEMESTER SURVEY AND SYLLABUS QUIZ: One change: there is also an additional QUP Gradescope quiz administered in Gradescope for an additional 10 CP.

STUDIO PARTICIPATION: Studio participation is not required.

"Out-of-studio" QUIZZES: Beginning on the second week of class, a quiz will be given every Thursday on non-exam weeks. Online students will have approximately **3 days** to complete the quiz after it is released in Gradescope, with a due date of <u>Sunday at 11:59 PM</u>. The questions will be based on the homework assignments posted on MyMathLab, examples from class lectures, or studio worksheets. Quizzes for the online sections are open book, open notes, and calculators are allowed (see below for details). Each quiz will be graded out of 20 points. Students will need to use a cell phone in order to scan and upload their responses to Gradescope at the end of the quiz. If you use iPhone, you can use Notes to create a pdf document to upload to Gradescope. Otherwise, please download a scanning software such as Camscanner to your phone prior to the first quiz. Quizzes are not eligible for make-ups or regrade requests, and late submissions will receive a zero.

Policy on acceptable submissions: Quiz submissions must be handwritten using a printout of the quiz paper or handwritten using digital annotation on the quiz pdf with software such as GoodNotes or OneNote. Quiz submissions on loose leaf paper are not accepted and will receive a score of zero.

Policy on outside resources: Students must accurately self-report any outside resources used on each quiz, and failure to do so will result in a zero on the assignment. Submissions containing transcription errors, answers not consistent with work shown, or otherwise invalid arguments will receive a zero on the problem for the first offense, and repeated offenses by the student will result in a grade of zero on the assignment and a referral to OSI. You can use outside resources as a *tool* to check your work, but these resources must not be used as a *substitute* for knowledge.

Breakdown of the Classwork Grade(*): There are a maximum of 199 possible CP points for the classwork grade. To compute your classwork average, we will divide the number of points earned by 130. Scores above 100% are not allowed, but extra points will be converted to final exam bonus points at a rate of 1 extra CP point = 0.05 bonus points on the student's final exam score, for a maximum of 3.45 bonus points added to the final exam score.

Assignment	Maximum Number of Classwork Points (CP)
Online MML Problems	49 CP (14 assignments, 148 points total divided by 3)
Start-of-semester survey, Syllabus Quiz, and QUP Gradescope Quiz	30 CP (10 points each)
"Out-of-studio" Quizzes	120 CP (6 quizzes, 20 points each)
Studio Attendance	N/A
Maximum total CP available:	199 CP possible

TESTS(*): We will have three in-person tests this summer. In-person tests will be a mix of free-response, short answer, and true/false/multiple-choice questions and will require you to show your work clearly, using correct mathematical notation. All tests will be 75 minutes in length and will be administered in-person using a proctoring service you must set up beforehand. All proctors must be approved through the Georgia Tech Office of Professional Education. Online students have a 24-hour window to take the exam, starting at 12:30pm on the dates listed below.

- Test 1: June 8
- Test 2: June 29
- Test 3: July 20

No books, notes, calculators, or other electronic devices are allowed during the tests. Any evidence of cheating or other violations of the Georgia Tech Honor Code will be submitted directly to the Dean of Students and will result in a zero for the assignment.

FINAL EXAM(*): The final exam will cover all course materials. All students must take the final examination. The final exam will be administered during our final exam period on July 28. Online students must be proctored in-person similar to the midterm exams.

For *QUP online-only* students your final average will be computed as follows:

Assessment	Percentage
Classwork(*)	5%

Tests(*): • Highest grade, 25% • Middle grade, 25% • Lowest grade, 20%	70%
Final Exam	25%

Letter grades will be determined based on the following intervals. You are guaranteed a minimum of the following scale, but do not expect any deviation:

A: 90% and higher, B: [80%, 90%), C: [70%, 80%), D: [60%, 70%), F: [0%, 60%).

Adjustments, if any, to the above scale will be decided after the final exam, after course grades are calculated.