

# Gallaudet University

## General Studies: GSR104.OL06 – Quantitative Reasoning

### Fall 2016 – 3 credits

**Instructor:** Susanna Henderson

**E-mail:** susanna.henderson@gallaudet.edu

**Office:** HMB S340A

**VP #:** 202-559-5429 (Work)

**Office Hours:** Tuesdays/Thursdays 11am-12pm, Mondays/Wednesdays/  
Fridays 9-11am, Wednesdays/Fridays 2:30-4:00pm (see the [schedule](#))

**Class Meets (Online Synchronous):** TuTh 9:30am to 10:50am



**TOTAL HOURS OF CLASSES: 37.5 HOURS AND 75 HOURS OUTSIDE**

## Course Description

*News headlines:*

“Average college credit card debt rises with fees, tuition.”

“Extreme obesity can shorten people’s lives by 12 years.”

“Tracking the global spread of swine flu”

News headlines are generated to lure people into reading their articles. Some headlines are powerful while others are not so powerful. However, an article that talks about tracking numbers, averages, or an increase/decrease in something almost always has data to justify their headlines. Should we believe everything that the articles present? How are these numbers generated? How can the reader interpret the data and draw conclusions to make informed judgments?

**Course Description:** This course is designed to achieve mathematical literacy among liberal arts students. It includes the mathematics, critical thinking, and problem-solving skills needed to make informed judgments in the contexts of science, technology, and society. Topics include number sense, use of percentages, algebra, linear modeling, descriptive statistics, graphing, data analysis, and finance. This is not a traditional abstract math class; rather it focuses on using mathematics and quantitative reasoning as valuable tools for comprehending the world in which we live.

**Prerequisites:** Qualifying performance on the English assessment [GSR 102 equivalent] or screening; passing ASL screening; high school algebra and passing the math screening test; passing MAT 040, or MAT 045.

**Contact Hours of Work:** Expect 3 hours of class time per week with and at least 4.5 hours of homework or participation per week.

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## TOPICS COVERED

**Chapter 1:** Critical Thinking and Problem Solving

**Chapter 6:** Algebra

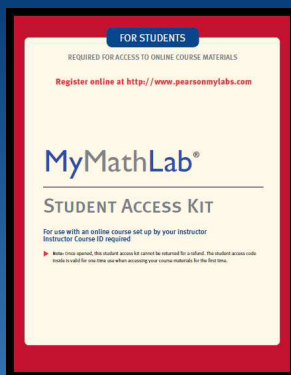
**Chapter 7:** Linear Graphs

**Chapter 8:** Consumer Mathematics and Financial Management

**Chapter 12:** Statistics

## Course Goals

1. To learn mathematics with an emphasis on understanding how it can be applied in different situations.
2. To learn to communicate mathematically; helping others understand why a claim is true and listening and appraising others' explanations. *Communication is learned through group work and homework, utilizing both ASL and written English skills.*
3. To become an active and independent learner of mathematical concepts.

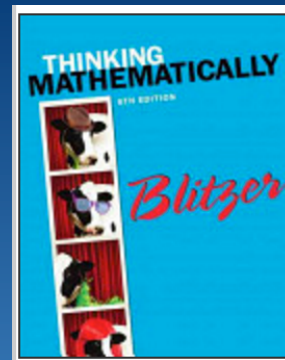


# Course Material

## REQUIRED:

*Thinking Mathematically* by Robert Blitzer, 6<sup>th</sup> ed., Pearson Education 2015.

- This includes Access Code that offers eBook and MML assignments. [Do not buy this kit via AMAZON—it is recommended to get the access code via Pearson.]
- Buy this at the bookstore or order the code online.



- Pen and/or pencil
- Laptop
- Calculator (basic calculator is ok, but TI-83 or TI-84 preferred)
- Access to Computer with MS Office (Word and Excel—free installed: <https://secure4.gallaudet.edu/softwarediscounts/>) and the Internet
- All handouts, policies, and updates found on Blackboard site

**DEFINITION of Online Synchronous:** Students are required to login at a specific time. A synchronous course will indicate this information either within the course description or list a specific online meeting time. Time online could vary between 1% to 100% of course time and activities.

## ATTENDANCE POLICY:

### *Need to come on time and stay for the whole class?*

Yes. I will use **Starfish**\* 3 minutes after we start class to record attendances. If you are late, or if you leave early before class ends, I will count that as half an absence. However, you are responsible to inform me to change from A (Absent) to T (Tardy) via email. I know unexpected things happen once in a while. However, being on time is important, bosses love it when you are punctual.

#### \* Starfish Link:

[http://www.gallaudet.edu/GTS/Tool\\_Box/Starfish.html](http://www.gallaudet.edu/GTS/Tool_Box/Starfish.html)

### *How many classes can I miss?*

Your attendance online using [Zoom.us](https://zoom.us) is mandatory. Your mini-project presentations constitute up to 20% of your total grade. You are permitted two absences in which you **MUST** inform your instructor with proof from your doctor or another professional organization.

## Grading Assessments

100% - 93% = A
90% - 92% = A -
87% - 89% = B +
83% - 86% = B
80% - 82% = B -
77% - 79% = C +
73% - 76% = C
70% - 72% = C -
67% - 69% = D +
60% - 66% = D
Below 60% = F

Assignments and Weightings	
<b>Two Projects</b> (Finance in English & Statistics in ASL)	20%
<b>Final Exam</b>	25%
<b>Three Tests</b> (Bonuses: Group work/test, see pp. 3)	20%
<b>Critical Thinking Activities/Quizzes</b> (see MOI**, pp. 5)	20%
<b>MML Assignments</b> (unlimited attempts)	10%
<b>Two reflective journals</b>	5%
<b>(Bonuses: Watching ASL movies)</b> ** MOI stands for Methods of Instruction.	

# Grading Assessments (Cont'd)

Three Tests	20%
Final Test	80%

There are two different ways we can use for taking the test:

1. **1<sup>st</sup> Choice:** Individual test and then group test, or
2. **2<sup>nd</sup> Choice:** Individual test with two attempts.

## 1<sup>st</sup> Choice: Individual Test and Group Test

1. In the “Review Day,” 1<sup>st</sup> student has worked with two group members to complete the same test.
2. In the “Final Test Day,” 1<sup>st</sup> student has completed the test with 70% (as an example).
3. If the group test grade is 80 or 100%, each of these three students will receive their final grade 80% or 100% as part of 1<sup>st</sup> test score and each student has his/her own final grade as part of 2<sup>nd</sup> test score.

As for students with disabilities (found in “Office of Students with Disabilities,” pp. 7), they are allowed to take the test in advance. For example, if the test is offered on Monday at 11am, they are required to take it at 8am or on the earlier Friday.

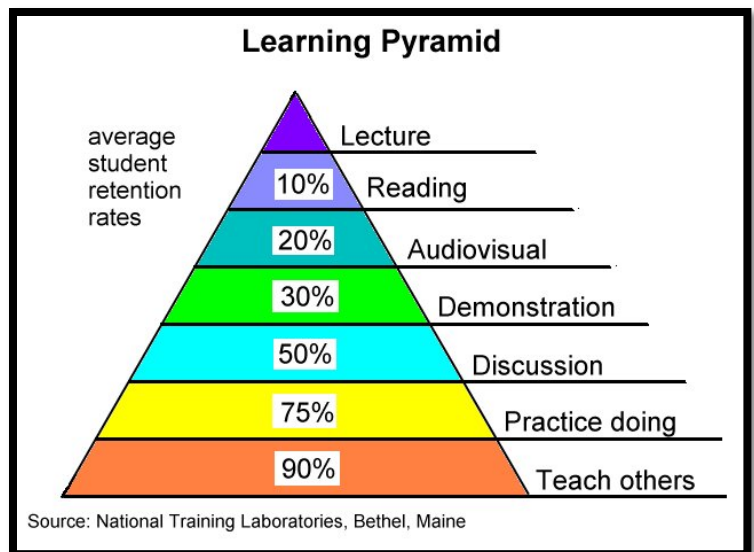
## 2<sup>nd</sup> Choice: Individual Test with Two Attempts

If the first test’s score is 50%, you are allowed to retake the same test with different numbers within 80 minutes. The better score can be even 65%. In the “Review Day,” each group will have an opportunity to play a game as part of earning extra points towards the final test. If the team wins the game by 3 points (+3%), then the final score is 68% (the best score is 65% + 3%).

## RESEARCH

Research has proved that doing group activities will support learning pyramid’s average student retention rates of 90%, “teach others” (Strauss, 2013). This helps developing teamwork skills as part of Multicultural Transformation (MCT), such as awareness and sensitivity to GSR 104 students’ language and cultural diversity. Any private or governmental companies are looking for such skills that can lead job promotions.

NOTE: “**Teach others**” and “**practice doing**” are the most valuable learning tools!



## STARFISH

This course is part of a student success system called Starfish. Throughout the term, you may receive emails from Starfish regarding your course grades or academic performance. Please pay attention to these emails and consider taking the recommended actions. They are sent to help you be successful!

If you receive an email from Starfish, please see your instructor to discuss your academic progress and what you need to do to succeed. Your advisor may also ask to see you to discuss your progress and ensure that you are receiving the support you need in order to succeed in the course.

<http://www.gallaudet.edu/office-of-academic-quality/retention-and-student-success/retention-and-student-success-resource-guides/starfish-at-gallaudet-faq.html>

# Grading Assessments (Cont'd)

## **Finance Project (10%):**

The objective of this project is to utilize finance formulas to investigate several factors related to financial decisions, such as budgeting, savings account, credit cards, and student loans. This project will require performing calculations within a spreadsheet program (Excel), analyzing the outcomes, and discussing the results of these calculations.

There are four different finance parts:

1. Finding a Career and Setting up a Monthly Budget in Excel
2. Comparing Two Different Savings Plans
3. Comparing Four Different Lengths of Credit Card, Student Loan, Mortgage, or Car
4. Comparing Nine Different Stocks in two-weeks

This project's guideline is found in BlackBoard, along with samples. This focuses on self-awareness of how this works with interest rates and budget.

## **Statistics Project (10%):**

The objective of this second project is to collect and analyze real world data (from a nice website called Gapminder) using statistical methods discussed in class. Topics you may choose from include life expectancy, infant mortality, education rates, and et cetera. You will organize the data into a spreadsheet, perform an analysis, and present your findings in an in-class presentation. Also, this project's guideline is found in BlackBoard.

## **Group Activities/Quizzes/Journals (21%):**

During classes, groups of two or three students are required to complete questions in 20-40 minutes, based on watching the movie(s) and completing MML quizzes at home. Each group of two or three students will not be the same since BlackBoard already sets up random groups automatically. This purpose is to support developing Multicultural Transformation (MCT) skills, e.g. identifying different ways of finding the correct solution(s).

You are required to

1. Watch Camtasia movies as part of earning extra points,
2. Complete MML quizzes (2-3 questions) at home,
3. Upload Learning Guide Worksheets in writing (using Bamboo pad),
4. Do two reflective journals as following:
  - 4.1. 1<sup>st</sup> Journal: **First-Day of School Questionnaire** in ASL found in BlackBoard (as part of “understanding of self and others”)
  - 4.2. 2<sup>nd</sup> Journal: **GSR 104 Course Information** in ASL or English (as part of “compare and contrast diverse needs”)

**\*\* More information about these reflective journals can be found in pp. 12 or BlackBoard.**



# Student Learning Outcomes



1. Language and Communication
2. Critical Thinking
3. Identity and Culture
4. Knowledge and Inquiry
5. Ethics and Social Responsibility

<http://www.gallaudet.edu/general-studies-program/mission-and-outcomes.html>

Course SLOs	Critical Assessments	Tools for Assessment and Expected Level	Program SLOs	GU SLOs
<b>Interpretation:</b> Student provides explanations of information presented in mathematical forms. For instance, student accurately explains the trend data shown in a graph.	* Statistics Project (ASL and English) * Journals * Quizzes/Tests	* GU Quantitative Literacy Rubric	1, 2, 3, 4	1.1-1.4, 2.1-2.3, 3.2-3.4, 4.1-4.3
<b>Representation:</b> Student converts relevant information into mathematical forms.	* Finance & Statistics Projects, and mini-projects	* GU Quantitative Literacy Rubric	1	1.1-1.3, 2.1-2.5, 4.1-4.3
<b>Calculation:</b> Student calculates to solve the problem.	* Quizzes/Tests * Projects	* GU Quantitative Literacy Rubric	2, 3	2.1-2.3, 4.1, 4.3
<b>Application/Analysis:</b> Student uses the quantitative analysis of data as the basis for judgments and drawing conclusions.	* Projects	* GU Quantitative Literacy Rubric	1, 3, 4	1.3, 2.1-2.2, 2.4-2.5, 4.2, 4.5, 5.1
<b>Assumptions:</b> Student describes assumptions involved in estimation, modeling, and data analysis.	* Quizzes/Tests * Projects	* GU Quantitative Literacy Rubric	1, 2, 4	2.3-2.4, 3.1, 4.3, 5.2-5.3
<b>Communication:</b> Student uses quantitative information in connection with the argument or purpose of the work.	* Projects	* GU Quantitative Literacy Rubric	1, 2, 4	1.1-1.5, 3.5, 5.5
<b>Supporting Material:</b> Uses supporting materials that make reference to information or analysis.	* Projects	* GU Written Communication Rubric * ASL Public Presentation Rubric	1, 2, 4	1.3, 2.1, 4.2
<b>Central Message:</b> Students communicate a central message.	* Projects * Journals	* GU Written Communication Rubric * ASL Public Presentation Rubric	1, 2	1.1-1.2, 1.4-1.5, 2.2, 2.4, 5.7

# Course Expectations

## Professional Behavior:

The goal of an undergraduate education is to become prepared for the workplace and/or postgraduate education. Thus, behaviors and habits that enable success will be fostered. Specific expectations for this course include:

- arriving to class on time
- attending all classes
- being prepared
- encouraging and fostering a learning environment
- treating one another with collegial and respect
- avoiding the use of pagers, iPods, laptops, or other electronic devices during class

## Attendance and Participation:

1. Class attendance is **REQUIRED**. Due to the interactive nature of the classroom environment, most students find that attending classes regularly is essential to learning the materials. If you attend classes, you will earn extra credit (found in page #2).

2. Pagers **MUST BE OFF** and **KEPT OFF** during the entire class period. You may not use your pagers to calculate your answers. Purchase a calculator to calculate your answers.

3. Each assignment will be handed out or posted on the Blackboard (Bb). It must be handed in **ON TIME**. If the assignment is turned in one day **LATE**, a **20% GRADE DEDUCTION** will be applied.

Each day is equivalent to a day, not a class day. Any assignments that are not turned in one day after the due date will be marked as **ZERO** and there will be no make-ups. You are **RESPONSIBLE** for getting handouts that are distributed in class yourself. If you know that you will be absent or unavailable the day an assignment is due, please make sure your assignment is completed before or by the due date. If you have technical difficulties, e-mail your instructor.

4. A percentage of your grade is directly related to your classroom contribution. Students are expected to make collegiate and positive contributions, which foster a professional and analytic atmosphere. Healthy debates are encouraged, but students must be mindful that remarks that demean others and/or their opinions are not tolerated.

5. Make-up work will be provided with **DOCUMENTED** medical excuses and personal emergencies. Make-up work that is not made up by the agreed date between the student and the instructor will be considered a **ZERO**. In other words, late work will not be accepted.

6. Academic Honesty is strictly enforced at Gallaudet University. Please refer to the Academic Policy in this syllabus on page 6.

## Important Information:

GSR 104 course focuses mainly on the use of American Psychological Association (APA) for our two projects and journals.

Academic ASL is required to be clear using one-colored background and APA citations (found in **Office of Bilingual Teaching and Learning**:

[http://www.gallaudet.edu/office\\_of\\_bilingual\\_teaching\\_and\\_learning.html](http://www.gallaudet.edu/office_of_bilingual_teaching_and_learning.html)).

## METHODS OF INSTRUCTION (MOI):

The types of instruction will include, but not be limited to the following:

- **1<sup>st</sup> Step:** Watch each topic's movie(s) in ASL (up to 15/10 points)
- **2<sup>nd</sup> Step:** Work with your group to develop a mini project/critical thinking activity related to real-world application(s). Provide your presentation in classes.
- **3<sup>rd</sup> Step:** During classes, take turns from lecture to students using Learning Catalytics (a "bring your own device" student engagement, assessment, classroom intelligence system), Kahoot!, or Learning Guide worksheet.
- **4<sup>th</sup> Step:** GSR 104 students are required to complete MML assignments (unlimited attempts).

# Important Links to Review & Policies

## LEARNING ASSESSMENTS:

The grading assessments section is found on page 2 of this syllabus. The rubrics to be used for this course will include the following:

1. **Finance and Statistics Projects [20%]:** Faculty members are required to evaluate each student's abilities using [AAC&U Quantitative Literacy Value Rubric](#), [ASL Public Presentation Rubric](#), and [AAC&U Written Communication Rubric](#)
2. **Group Activities/Quizzes [21%], Final Exam [25%] and Three Final Tests [20%]:** [AAC&U Quantitative Literacy Value Rubric](#)
3. **Two Reflective Journals [4%]** using [ASL Public Presentation Rubric](#), and [AAC&U Written Communication Rubric](#)

## **Computers:**

Computers undoubtedly have made a major impact in the way we learn, interact, conduct business, and communicate with each other. CNN aired a segment not too long ago that unveiled what the future may look like in regards to learning, and indeed you are encouraged to become at least literate, if not expert, with these pieces of technology. The instructor is using NetSupport, which can provide "the ability to deliver lesson content, simultaneously monitor all student PCs and work collaboratively, ensuring student attention and focus is maintained at all times" (NetSupport, 2012). This means that you must **use Gallaudet computer in class**, unless a letter from OWSD states otherwise.

## **Class Communication Policy:**

Each and every person has a right and responsibility to understand and be understood. While ASL will be the means of communication in this course, it will be recognized that each person has their own visual communication needs. Everyone's signing style and skills will be respected and various communication tools will be used to ensure effective communication.

## **Email & Grading Policy:**

Just like students, instructors/professors have a life outside the walls of Gallaudet University. E-mails will be read and responded within 24 hours. Grades will be graded one week after the due date. If more time is needed for grading, it will be communicated to the class via e-mail.

## **Academic Integrity Policy Statement & Link:**

The Gallaudet University Undergraduate Catalogue has an academic honesty policy, which all students should be aware of. This policy can be found at: <http://my.gallaudet.edu/bbcswebdav/institution/Public/CUE-Academic-Integrity08-21-07.doc>.

## **Academic Calendar:**

Click here to find important dates for this semester, like the first day of class, last day to Withdraw, Midterm time, last class date, final exam week, study day.

<http://www.gallaudet.edu/registrar-office/academic-calendars/undergraduate-2015-2016.html>

## **Class Cancellations or University Closings (Inclement Weather)**

If class is cancelled for any reason, check the announcement section of Blackboard in case there might be specific instructions, which will be posted by class time if possible. Because it is my job to teach and yours to learn, we must stay on schedule. Therefore, even if there is no announcement, you should always assume that the schedule will remain as-is.

Up-to-the-minute information on the University status such as delayed openings or closings are posted at <http://alert.gallaudet.edu>. You can also sign up for these alerts to be sent directly to your e-mail or pager at <http://dps.gallaudet.edu>.

We frequently have snow days early in the spring semester, although very rarely in the fall. The weather in Washington, D.C. is harder to predict than in many other parts of the country. In the winter, temperatures hover around 32oF (0oC). A difference of a few degrees warmer or colder completely changes rain into snow, or snow into rain. So, don't be surprised if the university misses the mark in predicting when they should close and when they should stay open.

# Important Links to Review & Policies Con't

## Title IX:

While I want you to feel comfortable coming to me with issues you may be struggling with or concerns you may be having, please be aware that I have some reporting requirements that are part of my job requirements at Gallaudet University.

For example, if you inform me of an issue of sexual harassment, sexual assault, or discrimination, I will keep the information as private as I can, but I am required to bring it to the attention to our institution's Title IX Coordinator, Sharrell McCaskill. If you would like to talk to the Title IX Coordinator directly, you may reach Ms. McCaskill by email at [sharrell.mccaskill@gallaudet.edu](mailto:sharrell.mccaskill@gallaudet.edu), by phone at (202) 651-5462, by VP at (202) 559-5683, or in person at College Hall, Room 312.

If you wish to keep your matter confidential without triggering an investigation, you can report incidents or complaints to the:

- Counseling and Psychological Services (CAPS): <http://www.gallaudet.edu/counseling-and-psychological-services.html>
- Office of the Ombuds: <http://www.gallaudet.edu/the-office-of-the-ombuds.html>
- Student Health Services (SHS): <http://www.gallaudet.edu/shs.html> and/or
- Campus Ministries: <http://www.gallaudet.edu/office-of-campus-ministries.html>

Another common example is if you are struggling with an issue that may be considered traumatic or unusual stress, I will likely inform the campus Behavioral Intervention Team (BIT): <http://www.gallaudet.edu/student-affairs/behavior-intervention-team.html>) or CAPS. If you would like to reach out directly to them for assistance, you can contact the team, chaired by the Dean of Student Affairs and Academic Support, Mr. A. Dwight Benedict, by email at [dwight.benedict@gallaudet.edu](mailto:dwight.benedict@gallaudet.edu), by VP at (202) 250-2385, or by phone at (202) 651-5064.

Finally, know that if, for some reason, our interaction involves a disruptive behavior or potential violation of policy, I am obliged to inform the Dean of Student Affairs and/or the Office of Student Conduct, even when you and I may have reached an informal resolution to the incident. The purpose of this is to keep the Dean apprised of any behaviors and what was done to resolve them.

The link of the full Interim Gender-Based and Sexual Misconduct Policy and Procedures found in Gallaudet University's 2015-16 Student Handbook is provided below:

<http://www.gallaudet.edu/student-affairs/student-handbook/interim-gender-based-and-sexual-misconduct-policy-and-procedures.html>.

## Office of the Ombuds:

The office of the Ombuds provides conflict management resources to all members of the campus community, including students and their families, faculty, staff, alumni, and others. If you would like the assistance of an impartial third-party regarding a course-related issue, you may contact the Office of the Ombuds. The Ombuds is available as a confidential and neutral resource to assist with the informal resolution of conflicts and concerns. The Office is located at Ely Center 113. Videophone: [202.559.5079](tel:202.559.5079). E-mail: [ombuds@gallaudet.edu](mailto:ombuds@gallaudet.edu). Website: [www.gallaudet.edu/ombuds](http://www.gallaudet.edu/ombuds)



# Important Links to Review & Policies Con't

## Communication

The faculty and staff of the Mathematics Program are committed to helping students achieve academic excellence.

- 1) If you are experiencing difficulties or feel uncomfortable addressing a matter directly, please see me as soon as possible. We will work to arrive at a resolution in mutual good faith. I am not a mind reader.
- 2) If for any reason you know you will have problems keeping up in class—which likely will affect your grade or hamper your ability to fully participate—please see me as soon as possible so that we may, in mutual good faith, arrange the means for you to fulfill the requirements of this course without penalty. Otherwise, I may unknowingly base your grade on a possibly inaccurate assessment-evaluation of your overall course performance. Again, I am not a mind reader (Example: medical and health emergencies, accident(s), or death in the family).
- 3) If, for any legitimate reason, the result of 1) or 2) does not satisfy you, then your next step would be take the matter up with the GSR 104 coordinator:

Susanna Henderson  
HMB S340A  
[susanna.henderson@gallaudet.edu](mailto:susanna.henderson@gallaudet.edu)

- 4) If the outcome of your meeting with the GSR 104 coordinator does not satisfy you, then you may take this matter up with either Program Chair:

James Nickerson (Math)  
HMB S340L  
[james.nickerson@gallaudet.edu](mailto:james.nickerson@gallaudet.edu)

Leslie Rach (GSR)  
JSAC 1227  
[leslie.rach@gallaudet.edu](mailto:leslie.rach@gallaudet.edu)

- 5) If the outcome does not satisfy you, then you may take this matter up with the Department Chair:

Kathleen Arnos  
HMB N334C  
[kathleen.arnos@gallaudet.edu](mailto:kathleen.arnos@gallaudet.edu)

- 6) The last option can be to take this matter up with the Dean of the College of Arts and Sciences:

Genie Gertz  
HMB 4<sup>th</sup> floor  
[genie.gertz@gallaudet.edu](mailto:genie.gertz@gallaudet.edu)

Any option, even in the beginning or in the end, can be to take this matter up with the Ombuds:

Elizabeth Stone Nirenberg  
Ely Center 113  
[ombuds@gallaudet.edu](mailto:ombuds@gallaudet.edu)

# Important Links to Review & Policies Con't

## Office for Student with Disabilities:

Gallaudet University is committed to providing all students equal access to learning opportunities. The Office for Students with Disabilities (OSWD) works with students with additional disabilities in order to provide and/or arrange reasonable accommodations. Students who have, or think they may have, a disability (e.g. psychiatric, attention, learning, vision, physical, or systemic), are invited to contact OSWD for a confidential discussion at (202) 651-5256 (V/TTY) or at [oswd@gallaudet.edu](mailto:oswd@gallaudet.edu). OSWD is located in the Student Academic Center, room 1220. Additional information is available at the OSWD website:

[http://www.gallaudet.edu/office\\_for\\_students\\_with\\_disabilities.html](http://www.gallaudet.edu/office_for_students_with_disabilities.html).

Students must be registered with the Office of Students with Disabilities (OSWD) if they need special academic accommodations. If you are a client of the Office for Student with Disabilities (OSWD), please see the instructors during the first two weeks of the semester so that we can plan to meet your classroom needs.

Students are responsible for ensuring that the OSWD staff brings the appropriate academic accommodation documentation to the professor. Ideally, this should be done by the end of the second week of classes, but no later than the end of the fifth week of classes. Accommodation may only be provided from the time the professor receives documentation until the end of the course. If the student is registered with OSWD but the accommodations documentation is not sent by this office to the professor in a timely manner, the student should send an e-mail message and written note to the professor, program director and chair of the department asking for asking and naming the OSWD staff member who is working with them and this person's email address.

## Tutorial and Instructional Programs Link:

<http://www.gallaudet.edu/tip.html>

## Supplemental Instruction/In-Class Tutor Policy & Link:

The role of Supplemental Instructor (SI) or In-Class Tutor (ICT) is to assist students in understanding the materials covered in class. As a student of this course, you are responsible for arranging a time to meet with your SI or any math coach in person to review any materials that may appear foreign to you outside of the classroom. If the question is too challenging for you and the SI or math coach, contact the instructor to set up an appointment to see the instructor in person. For more information, visit Supplemental Instruction,

[http://www.gallaudet.edu/TIP/Supplemental\\_Instruction.html](http://www.gallaudet.edu/TIP/Supplemental_Instruction.html) or Math Center:

<http://www.gallaudet.edu/tip/math-center.html>

## Office of Diversity and Equity for Students

Gallaudet University, through the leadership of the Office of Diversity and Equity for Students, will become a model of exemplary services for students who face challenges in higher education because of their deaf/hard of hearing/hearing status, race, gender identity and expression, age, social class, religion, ability, and sexual orientation.

<http://www.gallaudet.edu/diversity/office-of-diversity-and-equity-for-students/mission-and-vision-x33873.html>

## Syllabus Change Policy and Disclaimers

We will not make changes that substantially alter the assessment and grading of your work. This syllabus is a course guide. However, varied situations, such as bad weather or changes to syllabus may occur. Alternative options will be provided while retaining the original assessment methods.

The course, schedule and assignment deadline dates are subject to reasonable change by the instructors at any time. These changes may be announced during class session or in Blackboard. It is your responsibility to be aware of any announcements.

## Rights of Faculty:

\*\* I reserve the right to modify and update this syllabus. \*\*

# FALL 2016 SCHEDULE

Day	Date	GSR104 Course Information	Due
Tuesday	30-Aug	<b>Introduction to GSR104, MyMathLab (MML), Pearson Lock Browser, and Pre-Assessment Test</b>	
		Buy MML Access kit and calculator	1-Sep at 9:30am
		Calculator and Screenshot Skills Worksheet	6-Sep at 11:59pm
		MML Orientation (10 questions)	1-Sep at 9:30am
Thursday	1-Sep	<b>Introduction to Calculators, Kahoot!, Learning Catalytics (LC), &amp; Reflective Journal #1</b>	
		"My advice" & Unit 1.2 movies (BlackBoard)	6-Sep at 9:30am
		Mini-project U1.2	6-Sep at 9:30am
		<b>Reflective Journal #1 in ASL (BlackBoard/Journals/1st Reflective Journal in ASL)</b>	<b>6-Sep at 11:59pm</b>
Tuesday	6-Sep	<b>Unit 1.2 Estimation, Graphs, and Models</b>	
		MML Unit 1.2	8-Sep at 11:59pm
		Unit 8.1 movies #1, #2, & #3 (BlackBoard)	8-Sep at 9:30am
		Mini-project U8.1	8-Sep at 9:30am
		<b>Reflective Journal #1 in ASL (required to post at least two responses)</b>	<b>8-Sep at 11:59pm</b>
Thursday	8-Sep	<b>Unit 8.1 Percent and Decimal Notations &amp; Key Words in Percent Translations</b>	
		MML Unit 8.1 #1	13-Sep at 11:59pm
		Unit 8.1 movies #4 & #5 (BlackBoard)	13-Sep at 9:30am
		<b>Finance Project Part 1 - Career and Monthly Expenses</b>	<b>13-Sep at 9:30am</b>
Tuesday	13-Sep	<b>Unit 8.1 Percent Change &amp; Abuses of Percent</b>	
		MML Unit 8.1 #2	15-Sep at 11:59pm
		Units 8.3 movie (BlackBoard)	15-Sep at 9:30am
		Mini-project U8.3 & 8.4	15-Sep at 9:30am
Thursday	15-Sep	<b>Unit 8.3 Simple Interest &amp; Unit 8.4 Compound Interest</b>	
		MML Units 8.3 & 8.4	20-Sep at 11:59pm
		Unit 8.4 movie (BlackBoard)	20-Sep at 9:30am
		Mini-project U8.5	20-Sep at 9:30am
Tuesday	20-Sep	<b>Unit 8.5 Annuities, Methods of Saving, and Investments</b>	
		MML Unit 8.5	22-Sep at 11:59pm
		Unit 8.6-8.8 movies#1, # 2, & #3 (BlackBoard)	22-Sep at 11:59pm
		Mini-project U8.6-8.8	22-Sep at 9:30am
		<b>Finance Project Parts 2 - Savings Plan &amp; Stocks</b>	<b>22-Sep at 11:59pm</b>
Thursday	22-Sep	<b>Unit 8.6 - 8.8 Cars, Cost of Home Ownership, and Credit Cards</b>	
		MML Unit 8.6 - 8.8 #1	27-Sep at 11:59pm
		Re-watch Unit 8.6-8.8 movies #1-#3 (BlackBoard)	27-Sep at 9:30am
Tuesday	27-Sep	<b>Unit 8.6 - 8.8 Cars, Cost of Home Ownership, and Credit Cards</b>	
		MML Unit 8.6 - 8.8 #2	29-Sep at 11:59pm
		<b>Finance Project Part 3 - Credit Cards/Student Loans/Mortgage(s)</b>	<b>6-Oct at 11:59pm</b>
Thursday	29-Sep	<b>REVIEW</b>	
		MML Practice Test #1	4-Oct at 9:30am
Tuesday	4-Oct	<b>Test #1 FINANCE</b>	
		Unit 6.1 movies (Bb)	6-Oct at 11:59pm
		Mini-project U6.1	6-Oct at 9:30am
		<b>Finance Project Part 3 - Credit Cards/Student Loans/Mortgage(s)</b>	<b>6-Oct at 11:59pm</b>
Thursday	6-Oct	<b>Unit 6.1 Algebraic Expressions and Formulas</b>	
		MML Unit 6.1	11-Oct at 11:59pm
		Unit 6.2 movies (Bb)	11-Oct at 9:30am
		Mini-project U6.2	11-Oct at 9:30am
Tuesday	11-Oct	<b>Unit 6.2 Linear Equations in One Variable and Proportions</b>	
		MML Unit 6.2	13-Oct at 11:59pm
		Unit 7.2 movies (Bb)	13-Oct at 11:59pm
		Mini-project U12.6	13-Oct at 11:59pm

Day	Date	GSR104 Course Information	Due
Thursday	13-Oct	<b>Unit 7.2 Linear Functions and Their Graphs</b>	
		MML Unit 7.2	18-Oct at 11:59pm
		Unit 12.6 movies	18-Oct at 11:59pm
		Mini-project U12.6	18-Oct at 9:30am
Tuesday	18-Oct	<b>Unit 12.6 Scatterplots</b>	
		MML 12.6	20-Oct at 11:59pm
		Review Units 6.1, 6.2, 7.2, & 12.6 (MML Practice Test #2)	25-Oct at 11:59pm
		<b>Introduction to Statistics Project: Excel (individual) and PowerPoint (group)</b>	
Thursday	20-Oct	<b>Unit 12.6 Scatterplots</b>	
		MML 12.6	25-Oct at 11:59pm
Tuesday	25-Oct	<b>Last Day to Withdraw with WD grades</b>	
		<b>REVIEW</b>	
		MML Practice Test #2	27-Oct at 11:59pm
Thursday	27-Oct	<b>Test #2 Algebra and Scatterplots</b>	
		Unit 12.1 Movie (BlackBoard)	1-Nov at 11:59pm
		Mini-project U12.1	1-Nov at 9:30am
		<b>Post at least three topics (along with each two variables) in BlackBoard</b>	1-Nov at 11:59pm
Tuesday	1-Nov	<b>Unit 12.1 Sampling, Frequency Distribution, Graphs, Frequency Table &amp; Five-Number Summary</b>	
		MML Unit 12.1 Sampling, .... and MML Data.... (two assignments)	3-Nov at 11:59pm
		Unit 12.2 Movie (BlackBoard)	3-Nov at 11:59pm
		Mini-project U12.2	3-Nov at 9:30am
Thursday	3-Nov	<b>Unit 12.2 Measures of Central Tendency</b>	
		MML Unit 12.2	8-Nov at 11:59pm
		Unit 12.3 movie (BlackBoard)	8-Nov at 11:59pm
		Mini-project U12.3	8-Nov at 9:30am
		<b>Find each group member's region (five countries) and their data (two variables)</b>	15-Nov at 9:30am
Tuesday	8-Nov	<b>Unit 12.3 Measures of Dispersion</b>	
		MML Unit 12.3	10-Nov at 11:59pm
		Unit 12.4 movies #1 & #2 (BlackBoard)	10-Nov at 11:59pm
		Mini-project U12.4	10-Nov at 9:30am
Thursday	10-Nov	<b>Unit 12.4 The Normal Distribution #1 &amp; #2</b>	
		MML 12.4 The Normal Distribution & MML 12.4 Z-score (two assignments)	15-Nov at 11:59pm
		Unit 12.5 movie (BlackBoard)	15-Nov at 11:59pm
		<b>Find each group member's region (five countries) and their data (two variables)</b>	15-Nov at 11:59pm
Tuesday	15-Nov	<b>Work together to develop Statistics Project</b>	
		Unit 12.5 movie (BlackBoard)	17-Nov at 11:59pm
		Mini-project U12.5	17-Nov at 9:30am
		<b>Statistics Project in Excel</b>	17-Nov at 11:59pm
Thursday	17-Nov	<b>Unit 12.5 Problem Solving with the Normal Distribution</b>	
		MML Unit 12.5	29-Nov at 11:59pm
		Review Units 12.1 to 12.5	1-Dec at 9:30am
Tuesday	22-Nov	<b>Thanksgiving</b>	
Thursday	24-Nov	<b>Thanksgiving</b>	
Tuesday	29-Nov	<b>REVIEW</b>	
		MML Practice #3	1-Dec at 9:30am
Thursday	1-Dec	<b>Test #3 Statistics</b>	
		<b>Statistics PowerPoint (due before Sunday for interpreters)</b>	4-Dec at 11:59pm



# FALL 2016 SCHEDULE

Day	Date	GSR104 Course Information	Due
Tuesday	6-Dec	Statistics Presentation	
		Reflective Journal #2 in ASL or English	8-Dec at 11:59pm
Thursday	8-Dec	REVIEW Final Exam	
		MML Practice Final Exam	15-Dec at 8:00am
Tuesday	13-Dec	No classes: REVIEW	
Thursday	15-Dec	FINAL EXAM (8:00am to 10:00am)	

**FINAL EXAM: THURSDAY, DECEMBER 15<sup>TH</sup>, 2016, 8:00AM – 10:00AM (ONLINE)**

**\*The Final Exam will be comprehensive! This date & time will not be changed!\***

[https://www.gallaudet.edu/registrars\\_office/academic\\_calendars/final\\_exam\\_schedule.html](https://www.gallaudet.edu/registrars_office/academic_calendars/final_exam_schedule.html)

**\* Do not buy a flight ticket, which is supposed to be close to the final exam's schedule!**

# Unit Learning Objectives

## Unit 1 Critical Thinking

### **Unit 1.2 Estimation**

1. Use estimation techniques to arrive at an approximate answer to a problem.
2. Apply estimation techniques to information given by graphs.
3. Develop mathematical models that estimate relationships between variables.

## Unit 8 Finance

### **Unit 8.1 Percentages**

1. Express a fraction as a percent.
2. Express a decimal as a percent.
3. Express a percent as a decimal.
4. Solve applied problems involving sales tax and discounts.
5. Determine percent increase or decrease.
6. Investigate some of the ways can be abused.

### **Unit 8.4 Compound Interest**

1. Use compound interest formulas.
2. Calculate present value.
3. Understand and compute effective annual yield.

### **Unit 8.5 Annuities**

1. Determine the value of annuity.
2. Determine regular annuity payments needed to achieve a financial goal.
3. Understand stocks and bonds as investments.
4. Read stock tables.
5. Understand accounts designed for retirement savings.

### **Unit 8.6: Cars**

1. Compute the monthly payment and interest costs for a car loan.
2. Identify the types of leasing contracts.
3. Identify the pros and cons of leasing versus buying a car.
4. Identify the different kinds of car insurance.
5. Compare monthly payments on new and used cars.
6. Solve problems related to owning and operating a car.

## **Unit 8.7 The Cost of Home Ownership**

1. Compute the monthly payment and interest costs for a mortgage.
2. Prepare a partial loan amortization schedule.
3. Solve problems involving what you can afford to spend for a mortgage.
4. Identify the pros and cons of renting versus buying.

## **Unit 8.8 Credit Cards**

1. Find the interest, the balance due, and the minimum monthly payment for credit card loans.
2. Identify the pros and cons of using credit cards.
3. Understand the difference between credit cards and debit cards.
4. Know what is contained in a credit report.
5. Understand credit scores as measures of creditworthiness.

## Unit 6 Algebra

### **Unit 6.1 Algebraic Expressions and Formulas**

1. Evaluate algebraic expressions.
2. Use mathematical models.
3. Simplify algebraic expressions.

### **Unit 6.2 Linear Equations in One Variable and Proportions**

1. Solve linear equations.
2. Solve linear equations containing fractions.
3. Solve proportions.
4. Solve problems using proportions.
5. Identify equations with no solutions or infinitely many solutions.

## Unit 7 Linear Graphs

1. Use intercepts to graph a linear equation.
2. Calculate slope.
3. Use the slope and y-intercept to graph a line.
4. Graph horizontal or vertical lines.
5. Interpret slope as rate of change.
6. Use slope and y-intercept to model data.

# Unit Learning Objectives

## Unit 12 Statistics

### **Unit 12.6 Scatter Plots, and Regression Lines**

1. Make a scatter plot for a table of data items.
2. Interpret information given in a scatter plot.
3. Compute the correlation coefficient.

### **Unit 12.1 Sampling, Frequency Distributions, and more**

1. Describe the population whose properties are to be analyzed.
2. Select an appropriate sampling technique.
3. Organize and present data.
4. Identify the differences between quantitative and qualitative data.
5. Determine the frequency table for a data set.

### **Unit 12.2 Measures of Central Tendency**

1. Determine the mean for a data set.
2. Determine the median for a data set.
3. Determine the mode for a data set.
4. Determine the midrange for a data set.

### **Unit 12.3 Measures of Dispersion**

1. Determine the range for a data set.
2. Determine the standard deviation for a data set.

### **Unit 12.4 The Normal Distribution**

1. Recognize characteristics of normal distributions.
2. Understand the 68-95-99.7 Rule.
3. Use the 68-95-99.7 Rule.
4. Convert a data to a z-score.
5. Understand percentiles and quartiles.
6. Recognize distributions that are not normal.

### **Unit 12.5 Problem Solving with the Normal Distribution**

1. Solve applied problems involving normal distributions.

# Critical Thinking Mini-Project

**What:** To create real-world application(s)

**Why:** The purpose of the project is envisioned to be fourfold:

1. Use multimedia [as part of creativity].
2. Encourage student intuition [as part of critical thinking and reflection].
3. Ask the shortest question you can [as part of decision making].
4. Let each group of students build the problem [as part of multicultural education].

Information can be found from Dan Meyer's TEDx movie:

[https://www.ted.com/talks/dan\\_meyer\\_math\\_curriculum\\_makeover?language=en#t-576005](https://www.ted.com/talks/dan_meyer_math_curriculum_makeover?language=en#t-576005)

**Which video online or poster can be shared is:**

Use Kultura, YouTube, [Prezi](#), [Popplet](#), [Bubbl](#) or PDF

**Which video application can be used is:**

1. [Windows Movie Maker 2012](#)  
(<http://portal.education.indiana.edu/Portals/379/tutorials/Windowsmoviemaker.pdf>)
2. [iMovie 11](#)  
([http://sugarloaf.nbed.nb.ca/sites/sugarloaf.nbed.nb.ca/files/doc/teacher/2/imovie\\_project\\_book.pdf](http://sugarloaf.nbed.nb.ca/sites/sugarloaf.nbed.nb.ca/files/doc/teacher/2/imovie_project_book.pdf))
3. Echo 360 (no requirement of editing your movie)
4. MS Office Publisher (poster)
5. Adobe Photoshop
6. Adobe Final Cut Pro
7. And much more...

**What will the instructor do with your created videos?**

1. You have the right to decide whether your video can be shown publicly, along with your signature on the form of IRB.
2. The videos will be converted to 3D characters as a way to protect your identities.
3. The videos can be shown publicly to the Math Center and high school students in the future.

**Where can you find technical help?**

1. Go to stop by the [e-Learning Lab](#)
  - a. Location: MLC B220 (Library)
  - b. Office hours: 9am to 5pm
  - c. Contact information: [eLearning@gallaudet.edu](mailto:eLearning@gallaudet.edu)

**Video samples:**

<https://www.youtube.com/watch?v=jRMVjHjYB6w>





**1<sup>st</sup> Reflective Journal in ASL: Student First-Day of School Questionnaires****Goals**

1. What are your career goals?
2. What do you see yourself doing in the next 5-10 years?

**Attitudes towards school**

3. What –type- of school did you attend?
4. What is your favorite thing about school?
5. What is your least favorite thing about school?

**Language background**

6. When did you learn sign language?
7. What language(s) do you use at home?
8. Which language(s) are you most comfortable with?

**Cultural background**

9. Where are you coming from?
10. What were the cultural origins of your ancestors (parents, grandparents, and so forth)?
11. What is your cultural identity?
12. Please give up to 10 words that sum up your identity as a person (gender, personality, family, interests, and etc).

**Academic ASL required:**

- One-Colored Background (no distraction of people, kitchen, bedroom, and more)
- One-Colored Top/Shirt (no distraction of tattoos, jewels, and more)
- [http://www.gallaudet.edu/office\\_of\\_bilingual\\_teaching\\_and\\_learning/academic\\_asl.html](http://www.gallaudet.edu/office_of_bilingual_teaching_and_learning/academic_asl.html)
- Length: between 1 and 3 minutes

**Introduction of yourself in ASL:**

Total: 15 points (Introduction) + 5 points (Responses) = 20 points;  
5 points—Academic ASL (one-colored background),  
7 points—Content (Answer all the questions),  
3 points—Length, and  
+2/-2: Being on Time or Late

*Note:* You are required to reply **at least two responses to other classmates**, along with comments, constructive feedback, suggestions, ideas, and more. [Each post contains at least five sentences or 30 seconds in ASL.]

**At least two responses in English:** See the table to find the due dates [Total: 5 points: 2 responses]

**2<sup>nd</sup> Reflective Journal in ASL (1-3 minutes) or English (at least 500 words): GSR 104 Course Information**

Please reflect on GSR 104's course assignments, videos, projects, activities, and exams. Create an ASL video or English paper in answering all of the questions. Points will be taken off for each question not answered.

FYI: You can work with your classmate(s) to create one ASL movie if you want to.

1. Did you learn something new related to GSR 104 course? Explain.
2. Which parts do you like the most and least? Explain (i.e. Learning Catalytics, Learning Guide Worksheets, Group Quizzes, MML Movies, MML Fill-in-the-blanks, MML assignments, Camtasia Movies and so forth).
3. Did the finance and statistics projects benefit you? What did you learn or like best about this project? If you could, what would you change to make this project beneficial and enjoyable?
4. Did you feel that this course was too challenging, just right, or too easy? Explain why it was too challenging, just right, or too easy.
5. Regarding the instructor's teaching style, do you have any comments or constructive feedback?

Length: ASL (at least one minute) or English (at least 500 words)

**Points system**

Total: 15 points (ASL/English) + 5 points (Responses) = 20 points;

- 5 points—Academic English using APA format,
- 7 points—Content (Answer all the questions),
- 3 points—Length (1-2 pages + 1 page of References),
- 5 points—At least two responses, and
- +2/-2: Being on Time or Late

*Note:* You are required to reply at least **two responses to other classmates in English** (each post contains at least five sentences).

**2<sup>nd</sup> Reflective Journal in English/ASL (see the table above to find the due dates)  
At least responses in ASL/English**