

## **MATH-1200-M02 College Algebra, Spring 2018**

### **Course Information.**

Course Title:	College Algebra
Course Number:	MATH-1200 M02
Course Description:	Theory of functions. Relations between the concepts of function viewed as graphs, algebraic expressions, tables, and real-life situations (modeling). Analyze polynomial, rational, exponential and logarithmic functions. Introduction to limits.
Meeting times:	MWF 12:00-12:50 pm in PRH - 1
Semester:	Fall
Credit hours:	3
Prerequisites:	Grade C- in MATH-0260 or Pass the placement test

### **Instructor Information**

Name:	Carlos Quesada González
Contact:	<a href="mailto:carlos.quesadagonzalez@slu.edu">carlos.quesadagonzalez@slu.edu</a>
Office Hours:	MW 15:45-16:35, and by appointment.
Office:	Math Office, Padre Arrupe Hall, 1 <sup>st</sup> floor. Science and Engineering Office

### **Course Objectives**

The main objective of this course is to introduce the fundamental mathematical concepts required for subsequent Calculus courses introducing and exploring in depth the concept of function. Incorporating the technical skills acquired in previous Algebra courses to the conceptual understanding of functions, students will learn the power and utility of mathematics in modeling the real world.

### **Course Outline**

(Subject to truncation)

1. Functions
2. Polynomial Functions
3. Rational Functions
4. Exponential and Logarithmic Functions
5. Equations and Inequalities
6. Systems of Linear Equations and Inequalities

### **Student Learning Outcomes:**

1. Students will demonstrate a knowledge of Lines and Circles and their graphs
2. Students will demonstrate a knowledge of Functions and Their Graphs
3. Students will demonstrate a knowledge of Inverse Functions
4. Students will demonstrate a knowledge of Linear Functions, Their Properties, and Linear Models
5. Students will demonstrate a knowledge of Quadratic Functions and Their Properties
6. Students will demonstrate a knowledge of Inequalities Involving Quadratic Functions
7. Students will demonstrate a knowledge of Polynomial and Rational Functions
8. Students will demonstrate a knowledge of Exponential Functions
9. Students will demonstrate a knowledge of Logarithmic Functions
10. Students will demonstrate a knowledge of Exponential Growth and Decay Models
11. Students will demonstrate a knowledge of Systems of Equations and Inequalities

### **Text book**

*College Algebra* International Edition, 5/E. Robert F. Blitzer, Pearson international edition, 2010.

### **Required work**

**Online homework, two midterms and a comprehensive final.** Homework will be assigned through Khan Academy. Registration in **Khan Academy is mandatory**, as online homework is conducted through it.

### **Evaluation**

- Online Homework: This part will be carried out through College Algebra Lab as explained below.
- Midterms: up to 2 hour exams consisting of some problems related to the material covered in class.
- Final exam: The final exam is cumulative. It will cover the **entire semester's material**, will be a two or three hour exam, and will be similar in form to the midterm exams.

*Remark:* No complaints about the grade of an exam will be accepted two weeks after the results have been announced.

### **Grading system**

The final grade will be obtained as follows:

10% Online Homework.

20% First midterm exam.

30% Second midterm exam.

40% Final exam (comprehensive).

\*For students with average grade greater than B, homework is not required. In that case the final exam will account for a 50% of the final grade.

### **College Algebra Lab – MATH 1200 M36**

College Algebra Lab (MATH 1200 – M36) is a completely free of charge course in order to help students fill knowledge gaps they might have.

Attendance is mandatory to all students performing poorly, so **any student might be required to register and attend to lab** any time at the professor's discretion. This is not to be considered as a punishment but as the path for improving for students with poor performance in the exams. For the rest of the students, even though attendance is not required, it is highly recommended.

### **Late work**

Make up exams are not given. If an exam is missed due to an excused absence (see paragraph below), a makeup exam will be given *the same day of the final exam*. Exams that are missed illegitimately result in a score of 0 for that exam. Missing more than one exam results in a final grade F, thus failing the course.

### **Excused Absences**

Legitimate conflicts and excuses require written documentation and are limited to death or near-death instances in the immediate family, a student's illness that requires immediate doctor's care (with the corresponding doctor's note), a University sponsored event and regularly scheduled religious obligations. Excuses that will NOT be considered include personal travel arrangements, non-University sponsored events, a conflicting appointment, or an illness that does not prevent you from coming to the exam.

If an absence is unavoidable, it is the student's responsibility to find out what was covered in class and to secure notes from another student.

### **Attendance and punctuality**

Attendance is **mandatory**. You will be responsible for any announcements, information, problems or course changes that are made in all lectures. Students are expected to arrive on time to the lectures. Repeated lateness is rude and disruptive and will not be tolerated.

### **Participation**

Active participation during the lectures will have a positive impact on the final grade.

### **Math 1200 Lab - Khan Academy**

Attendance to lab is highly recommended and it will have a positive impact in the final grade.

Any student might be required to attend to lab any time at the professor's discretion. This is not to be considered as a punishment but as the path for improving for students with poor performance in the exams. Additionally, all students (including those who are not required to attend or have a schedule incompatibility) are required to enroll and register into Khan Academy in order to do the Online Homework.

### **Course calendar:**

Schedule:

<https://www.slu.edu/madrid/academics/registrar/academic-calendar/spring-2018>

Exams Schedule

<https://www.slu.edu/madrid/academics/registrar/final-exam-schedule/2017-2018>

The main information related to this course is:

- January 21<sup>st</sup>: Last day to drop without a W.
- February 9<sup>th</sup>: Exams for MATH - First midterm (2:00-4:00 p.m.). Room TBA
- March 9<sup>th</sup>: Last day to drop with a W.
- April 4<sup>th</sup>: Registration for Fall begins.
- April 13<sup>th</sup>: Exams for MATH - Second midterm (2:00-4:00 p.m.). Room TBA
- May 9<sup>th</sup>: Final Exam at 12:00. Room PRH - 1

### **University's Academic Integrity:**

*Academic integrity is honest, truthful and responsible conduct in all academic endeavors.* The mission of Saint Louis University is "the pursuit of truth for the greater glory of God and for the service of humanity." Accordingly, all acts of falsehood demean and compromise the corporate endeavors of teaching, research, health care and community service via which SLU embodies its mission. The University strives to prepare students for lives of personal and professional integrity, and therefore regards all breaches of academic integrity as matters of serious concern.

The governing University-level Academic Integrity Policy can be accessed on the Provost's Office website at: [http://www.slu.edu/Documents/provost/academic\\_affairs/University-wide%20Academic%20Integrity%20Policy%20FINAL%20%206-26-15.pdf](http://www.slu.edu/Documents/provost/academic_affairs/University-wide%20Academic%20Integrity%20Policy%20FINAL%20%206-26-15.pdf). Additionally, SLU-Madrid has posted its academic integrity policy online: <http://www.slu.edu/madrid/academics>. As a member of the University community, you are expected to know and abide by these policies, which detail definitions of violations, processes for reporting violations, sanctions and appeals. The professor will review these policies during the first weeks of the term: please direct questions about any facet of academic integrity to your professor, the chair of the department of your academic program or the Academic Dean of the Madrid Campus.

### **Accommodation Statement**

In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. Students who think they might benefit from these resources can find out more about:

- Course-level support (e.g., faculty member, departmental resources, etc.) by asking your course instructor.
- University-level support (e.g., tutoring/writing services, Disability Services) by visiting the Academic Dean's Office (San Ignacio Hall) or by going to <http://www.slu.edu/madrid/learning-resources>.

Students with a documented disability who wish to request academic accommodations **must** contact Disability Services to discuss accommodation requests and eligibility requirements. Once successfully registered, the student also **must** notify the course instructor that they wish to access accommodations in the course. Please contact Disability Services at [disabilityservices-madrid@slu.edu](mailto:disabilityservices-madrid@slu.edu) or +915 54 58 58, ext. 230 for an appointment. Confidentiality will be observed in all inquiries. Once approved, information about the student's eligibility for academic accommodations will be shared with course instructors via email from Disability Services. For more information about academic accommodations, see "Student Resources" on the SLU-Madrid webpage. Note: Students who do not have a documented disability but who think they may have one are encouraged to contact to Disability Services.

### **Student Outcome Assessment**

In order to maintain quality academic offerings and to conform to accreditation requirements, SLUMadrid regularly assesses its teaching, services and programs for evidence of student learning. For this purpose, SLU-Madrid keeps representative examples of student work from all courses and programs on file, including assignments, papers, exams, portfolios and results from student surveys, focus groups and reflective exercises. Copies of your work for this course may be kept on file for institutional research, assessment and accreditation purposes. If you prefer SLU-Madrid not to retain your work for this purpose, you must communicate this decision in writing to your professor.

### **Title IX**

Saint Louis University and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have encountered any form of sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the University. If you speak with a faculty member about an incident of misconduct, that faculty member must notify SLU's Title IX deputy coordinator, Marta Maruri, whose office is located on the ground floor of Padre Rubio Hall, Avenida del Valle, 28 ([mmaruri@slu.edu](mailto:mmaruri@slu.edu); 915-54-5858, ext. 213) and share the basic fact of your experience with her. The Title IX deputy coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

If you wish to speak with a confidential source, you may contact the counselors at the SLU-Madrid's Counseling Services on the third floor of San Ignacio Hall ([counselingcenter-madrid@slu.edu](mailto:counselingcenter-madrid@slu.edu); 915-54-5858, ext. 230) or Sinews Multiple therapy Institute, the off-campus provider of counseling services for SLU-Madrid ([www.sinews.es](http://www.sinews.es); 917-00-1979). To view SLU-Madrid's sexual misconduct policy and for resources, please visit the following web address: <http://www.slu.edu/Documents/Madrid/campus-life/SLUMadridSexualMisconductPolicy.pdf>.