Saint Louis Christian College
GMA101 – Intermediate Algebra
Professor Jon-Michael D. Brown I
3 Hours

FALL 2014 Wednesday and Friday
Prerequisite: Satisfactory Accuplacer Score or GMA012 (C or higher) 8:40 – 9:55am

MISSION STATEMENT:

Saint Louis Christian College pursues excellence in the Word and develops servant-leaders for urban, suburban, rural, and global ministry.

COURSE DESCRIPTION:

Students learn advanced skills of algebraic problem solving. Topics may include systems of linear equations, absolute values, radicals, polynomial equations, graphs, complex numbers, and functions.

COURSE RATIONALE:

This course contributes to the fulfillment of the Core Value #4, "Christian Worldview – A broad base of academic knowledge is fundamental to becoming an educated person who effectively reasons and interacts in society". This course also contributes to the fulfillment of the Institutional Outcome #3, "Know How to Initiate Change – Therefore, SLCC focuses on developing skills appropriate for leadership in a changing world" and of the Institutional Outcome # 4, "Possess a Permanent Thirst for Wisdom – Therefore, SLCC promotes academic excellence and seeks to develop in students a desire for personal enrichment and lifelong learning".

COURSE OBJECTIVES:

Upon conclusion of this course, the learner should be able to:

1. Perform basic mathematical operations with ease and accuracy
2. Solve basic equations using signed numbers and variables
3. Analyze and solve problems involving systems of linear equations
4. Analyze and solve problems involving polynomial equations and graphs
5. Analyze and solve problems involving complex numbers

COURSE REQUIREMENTS:

Attendance

Attendance is expected. This class meets 28 times, including the final. According to school policy if you miss more than 25% (more than 7) of the sessions for any reason, you will be withdrawn from the class. If you must be absent on school business on the day that an exam is scheduled, please notify the professor and make arrangements to take the exam at a different time.

Three times tardy will count as one time absent. A tardy is defined to be any length of time up to 10 minutes after the time the class is scheduled to begin or up to 10 minutes before the class ends or up to 10 minutes absence during the class session. Over ten minutes will be counted as an absence.

Examinations and Quizzes

Examinations and quizzes will test the student's ability to analyze and solve mathematical problems. There will be three (3) hour-long exams in addition to a comprehensive final exam. There will also be 8 quizzes.

Please be present on the days of the exams and quizzes. Dates of exams and quizzes are listed on the *Schedule of Topics* at the end of this syllabus. Make-up exams will be given at the discretion of the professor, but no later than one week following the original date.

Homework Assignments

Homework practice is considered an important part of the learning process in mathematics. Homework will be checked for completeness at the beginning of each session. Since answers are readily available, the student must show the process by which a response was arrived. If you are absent, completion credit will be given provided the assignment is presented at the beginning of the session immediately following the absence. Assignment due dates are listed on the *Schedule of Topics* at the end of this syllabus. *All homework must be completed in pencil.*

COURSE ASSESSMENT

The final grade will be determined by the following criteria:

Hour Exams (3 @100 points)	300 points (40%)
Quizzes (8@25 points)	200 points (27%)
Homework Completion (25 @2 points)	50 points (6%)
Comprehensive Final Exam	200 points (27%)
	750 points (100%)

The grade point system approved by the college will be used to assign a final letter grade.

COURSE SCHEDULE

DATE	TOPIC	ASSIGNMENT
8/20	Introduction Chapter 1 Review	
8/22	How to use the TI-83 Calculator	p.69-70 #1-109, odd
8/27	**Quiz 1** – Basic Math Sec 2.1 Basic Algebra	Worksheet
8/29	**Quiz 2** – Basic Algebra Sec. 2.2 – Solving Equations	Sec 2.1 p.79-80 #1-81, odd
9/3	Solving Equations, part 2	Sec 2.2 p. 89-91 #1-85, odd
9/5	Sec. 2.3 – Equations	Sec 2.2 p. 89-91 #1-86, even
9/10	NO CLASS: INFINITE INFLUENCE	
9/12	**Quiz 3** – Equations (2.2 & 2.3) Sec 2.5 Algebraic Formulas	Sec 2.3 p. 98, #1-65, odd
9/17	**EXAM 1** – Math & Algebra	Sec 2.5 p. 118-119 #1-35, all Prepared notes for exam
9/19	Sec. 3.1–Rectangular Coordinates *Instructor will supply quad paper and rulers*	
9/24	Sec. 3.2 – Graphing Lines	Sec 3.1 p. 175-177 #1-59, odd
9/26	Sec. 3.3 – X&Y Intercepts Graphing With the Calculator *Bring graphing calculator*	Sec 3.2 p. 187-189 #1-54, odd
10/1	**Quiz 4** – Graphing Lines Sec. 3.4 – Slope of Lines	Sec 3.3 p. 196-197 #1-32, all
10/3	NO CLASS: FALL BREAK	
10/8	Parallel & Perpendicular Lines	Sec 3.4 p. 209-210 #1-50, all
10/10	**Quiz 5** – Slopes Sec 3.5 – Equations of lines	Sec 3.4 p. 210 #51-70, all
10/15	Sec 3.6 – Functions	Sec 3.5 p. 220 #1-50, all
10/17	**Quiz 6** – Equations of lines Review of graphing	Sec 3.6 p. 230-232 #1-68, odd
10/22	**EXAM 2** – Graphing	Notes prepared for exam. p. 238-241 #1-104, odd
10/24	Sec 4.1 – Graphing Systems of Equations *Bring graphing calculator*	
10/29	Sec 4.2 – Solving Systems by Substitution	Sec 4.1 p. 252 #1-52, all
10/31	Sec 4.3 – Solving Systems of Equations by Addition/ Subtraction	Sec 4.2 p. 259 #1-38, all
11/5	**Quiz 7** – Solving Systems of Equations by Substitution Systems with > 2 Equations	Sec 4.3 p. 265-266 #1-55, odd
11/7	Sec 4.4 More Systems	Worksheet on Systems
11/12	**Quiz 8** – Solving Systems by Addition/ Subtraction Sec 5.1 – Exponents	Sec 4.4 p. 273-274 #1-32, all
11/14	Sec 5.2 – Polynomials (ICOM)	Sec 5.1 p. 309-310 #1-103, odd
11/19	Sec 5.4 – Special Products	Sec 5.2 p. 321-322 #1-89, odd

11/21	Sec 5.5 – Negative Exponents	Sec 5.4 p 334 #1-79, odd
11/26	NO CLASS: THANKSGIVING BREAK	
11/28	NO CLASS: THANKSGIVING BREAK	
12/3	Prepare for Exam	Sec 5.5 p. 343-344 #1-103, odd
12/5	**EXAM 3** – Systems & Exponents	Notes prepared for exam
TBA	FINAL EXAMINATION	

COURSE STUDENT LEARNING RESOURCES

Required Text: Martin-Gay, K. Elayn. Beginning and Intermediate Algebra (4th Edition). Upper Saddle River, New Jersey: Pearson Prentice Hall, 2005.

Any handheld calculator.

Chapter Test Prep Video, included with required text.

Website: http:/www.prenhall.com/martin-gay (The companion site for the text.)

COURSE POLICIES

1. The student may use hand held calculators on homework assignments, quizzes, and examinations. The **TI-83 Plus** calculator by **Texas Instruments** is highly recommended.
2. Students may use self-prepared notes on all exams and quizzes.
3. There will be no extra credit work assigned or accepted.
4. Please understand that the Professor reserves the right to modify this course plan by changing topics, due dates, or even an assignment so long as it does not add to the student's workload.
5. The student (not the professor) is responsible for work and materials distributed in class on days when the student is absent.
6. Courtesy and a positive regard for the learning of others is expected at all times.
7. Please turn off cell phones and sound generating devices. Please do not play games, electronic or otherwise.
8. Please do not eat in this classroom. Bottled water is allowed.
9. Please do not sleep or give the appearance of sleep. Students must be awake and fully functioning in order to be given attendance credit.
10. All e-mail communications from the professor will be sent to the student's SLCC e-mail address. Some documents may be put in the student's SLCC mailbox.
11. If you have a diagnosed learning disability, please see the Director of the Study Center (The Hundred), who will advise the professor of appropriate accommodations.

INSTRUCTOR CONTACT INFORMATION

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*Feel free to contact me outside of my office hours