

Course Description**MAT1033L | Intermediate Algebra Recitation Hall | 0.00 credits**

The student will receive individualized, small group or whole group instruction to deepen their conceptual understanding of mathematics. The student will reinforce and apply content knowledge with effective problem-solving techniques and non-cognitive activities to make mathematics meaningful and relevant to their fields of study while strengthening the concepts needed to achieve the objectives of MAT1033. Corequisite: MAT1033.

Course Competencies:

Competency 1: The student will activate, reinforce, and apply their knowledge of real numbers and basic algebraic concepts by:

1. Participating in collaborative learning to analyze data and deconstruct and find meaning to carefully sequenced questions and problem situations
2. Participating in Socratic dialog
3. Engaging in productive discussions
4. Justifying and defending the group's current thinking
5. Summarizing their findings and work on computer-based assignments that support their mastery of the content

Competency 2: The student will reinforce and apply their knowledge of algebraic and graphic solutions of linear equations and inequalities by:

1. Working in small groups to defend their reasoning and negotiating meaning with their peers and the ILA.
2. Critiquing the groups' ideas and work while arriving at their own conclusions and solutions to inquiry-based, context-rich Performance Tasks
3. Using EXCEL spreadsheets to analyze data and create templates and dynamic explorations and manipulations to simulate real-life scenarios and situations
4. Recognizing the differences, advantages, and disadvantages of numeric, algebraic, and graphical solutions to given problems and real-life situations
5. Constructing numeric, algebraic, and graphical solutions to computer-based assignments to support their mastery of course content

Competency 3: The student reinforces and apply their knowledge of systems of equations and inequalities by:

1. Working in pairs or small groups and focusing on comparing and interpreting each other's ideas instead of simply getting the answer to a given problem
2. Revising, rewriting, and creating scripted, conceptual questions about a problem and situation.
3. Creating numerical, algebraic, and graphical models for real-life situations
4. Using EXCEL spreadsheets to create and analyze "what if"
5. scenarios for real-life business scenarios and situations
6. Completing computer-based assignments, including proper representation and discussion of results to support their mastery of course content

Competency 4: The student will reinforce and apply their knowledge of functions operations with polynomials and factoring by:

1. Creating real-life problem situations, setting up problems, and arriving at their own conclusions and solutions to context-rich Performance Tasks while identifying, analyzing, and comparing each other's approaches and/or created models
2. Explaining their reasoning while discussing and connecting procedures to real-life situations
3. Using calculators to re-create and create graphical representations of real-life situations
4. Presenting and analyzing computer-based assignments aloud to show mastery of course content

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills

- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Create strategies that can be used to fulfill personal, civic, and social responsibilities