



2021-2022 COURSE SYLLABUS FOR MATH II

DEPARTMENT OF MATHEMATICS

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| 1. | COURSE NUMBER, TITLE, UNITS AND PRINCIPAL/DEPARTMENT APPROVED DESCRIPTION | |
| | Integrated Mathematics II (Two semesters; 5 units each semester; 10 units total) | |
| 2. | GENERAL INFORMATION | |
| | Term and year: | Fall 2021 - Spring 2022 |
| | Instructor: | Ms. Hu |
| | Class Room: | T6 |
| | Phone number: | 395 - 5090 x506806 |
| | E-mail address: | Wei-hu@scusd.edu |
| 3. | TEXTBOOKS AND/OR RECOMMENDED OR REQUIRED READINGS | |
| | <i>Common Core State Standards, Mathematics II, Integrated Pathway.</i> Walch. | |
| 4. | GENERAL OVERVIEW | |
| | <p>Math II continues students' study of topics from algebra, geometry, and statistics in a problem-centered, connected approach. Functions and algebraic representations of geometric concepts are the principle topics of study. Students will be expected to describe and translate among graphic, algebraic, numeric, tabular, and verbal representations of relationships and use those representations to solve problems. The new Common Core high school standards call on students to practice applying mathematical ways of thinking to real world issues, prepare students to think and reason mathematically, and emphasize mathematical modeling.</p> | |
| 5. | COURSE OBJECTIVES | |
| | <p>This program includes all the topics addressed in the CCSS Integrated Pathway: Mathematics II content map. These include:</p> <ul style="list-style-type: none"> • Extending the Number System • Quadratic Functions and Modeling • Expressions and Equations • Applications of Probability • Similarity, Right Triangle Trigonometry, and Proof • Circles With and Without Coordinates | |



Students will acquire and demonstrate knowledge of the concepts, definitions and properties required to meet the Integrated Mathematics II standards. Students will develop critical thinking and decision-making skills by connecting concepts to practical applications needed to be productive members of society. All students are expected to demonstrate the following objectives:

- Students should be able to work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal. Students should understand the connections among these representations.
- Students should be able to communicate mathematics both orally and in well-written sentences and should be able to explain solutions to problems.
- Students should be able to model a written description of a physical situation with a function.
- Students should be able to handle a faster and more rigorous curriculum with an expectation of higher-level thinking.
- Students should be able to use technology (scientific calculators and graphing software) to help solve problems, experiment, interpret results, and verify conclusions.
- Students should be able to determine the validity of solutions, including sign, size, relative accuracy, and units of measurement.

6. COURSE REQUIREMENTS, ATTENDANCE AND SPECIFIC GRADING POLICY

Grades are based on demonstrated mastery of concepts and development of skills, not effort or potential. *A major component of your grade is determined by your results on exams and quizzes.* Progress reports are available on the District Web site in Infinite Campus. Student overall performance is determined by exams (including final exam) and quizzes as well as assignments, which comprises homework (based on work collected), in class assignments (based on work collected such as worksheets, activities), and projects.

Assignments are a guide as to what is most important and what will be tested. Assignments are given daily. *Students not actively engaged in assignments and study will most likely fail the class.* Planning your study should include a minimum hour of quality time daily.

The math dept. complies with district protocol, viewable at www.scusd.edu. Make-up work/tests are student's responsibility and may not be allowed without a valid re-admit, or excused absence.

7. DESCRIPTION OF MAJOR ACTIVITIES/EXERCISES/PROJECTS

- Instructional Strategies and Activities Include:**
- Lecture on concepts and techniques
 - Presentation/modeling of examples and strategies
 - Large and small group discussions and explorations
 - Reading and writing assignments
 - Practice and learning through classwork and homework assignments
 - Applications to demonstrate relevance and extend learning
 - Active student engagement in group work and discussions
 - Quizzes, and tests to encourage and monitor learning



8. GENERAL STATEMENTS

Students are expected to be familiar with and adhere to policies in the JFKHS Student Handbook. The student handbook identifies student rights, responsibilities, discipline rules and consequences, behavior, and other information for academic and social success.

Student ignorance does not provide justification for failure to follow the information contained in the student handbook. All material submitted can be retained by the instructor. If you desire copies of any submitted materials, then duplicate copies for yourself before submission. The Principal reserves the right to modify and/or change the course syllabus as needed during the course. The teacher has the right to adjust assessments, daily assignments and due dates as necessary.

CLASSROOM BEHAVIOR EXPECTATIONS: The following summarize important expectations for classroom behavior. Students are expected to:

- attend class every day.
- complete all assignments on time.
- be seated and prepared for learning when the bell rings.
- treat their classmates with respect; no put downs of any kind.
- actively and positively participate in class.
- demonstrate personal responsibility, honesty, and integrity in all of their actions.

CLASSROOM RULES: The following few rules guide classroom behavior and activity.

- Follow teacher directions and requests immediately.
- Keep your hands, feet, and other objects to yourself.
- Remain seated unless you have permission to move about the classroom.
- Eating (food, candy, etc.) and gum chewing are not permitted in the classroom.

ELECTRONIC DEVICES: Electronics (music devices, cell phones, etc.) are to be turned completely off and put away.

COURSE REQUIREMENTS, ATTENDANCE AND GRADING POLICY

The following percentage scale will be used in determining grades:

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|------------|---|
| 90% - 100% | A |
| 80% - 89% | B |
| 70% - 79% | C |
| 60% - 69% | D |
| 50% - 59% | F |

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| 75% | Tests, group tests, quizzes, other assessments, common unit exams |
| 25% | Participation in all class activities, and completion of assignments, warm-ups, practice, etc. |



HOMEWORK AND STUDY: Homework and student study is an essential part of your education. Any student expecting to do well in this course should carefully read the text and do all the assigned work.

TESTS/EXAMS: A comprehensive test to measure students' mastery of skills and concepts will be given, as a minimum, at the end of each chapter/unit; mid-unit tests and quizzes will also be given based on chapter content. Students will be informed of the comprehensive unit test date at least a week in advance. Unexcused absences before the test date do not excuse a student from taking the test as scheduled. Lastly, a comprehensive final must be taken at the end of each semester.

No notes/notecards are allowed on ANY test. Quizzes are okay. If a test warrants, teacher may provide a formula sheet for test use.

There are no test RETAKES. However, students will be given an opportunity, outside of class time, to improve test scores. (at 90% original value, up to 25%)

In addition, the score on the Final Exam may ALSO increase (up to 25%) a single, lowest test score, provided all assessments are scored, and student makes corrections and obtains parent signature.

CHARACTERISTICS OF QUALITY WORK: Using the following guidelines will help you master the Integrated Mathematics III+ objectives. Quality work has the following characteristics.

- Is complete with full solution. That is, all problems are completed or at least attempted.
- The supporting work for each problem is shown completely using proper algebraic conventions and notations.
- The work is done neatly.
- The work is done accurately.

CHARACTERISTICS OF A SUCCESSFUL STUDENT: Students that are successful in school generally exhibit the following traits:

- Is consistently present for class in body and spirit.
- Desires to learn the material presented.
- Uses time wisely.
- Does practice work, study, and test preparation faithfully.
- Asks thoughtful questions during class.
- Actively participates in class and gets extra help when needed.

ACADEMIC DISHONESTY: Academic dishonesty is considered a serious offense in my class. Students cheating will face serious consequences. I encourage collaboration on all assignments but I expect the work you hand in (assignments, exam/quiz, etc.) to be your own.



CALCULATOR USE AND EXPECTATION: A scientific calculator (preferably TI 30XIIS models) is necessary for this course. A graphing calculator is not necessary for this class (and is not allowed on any test). The calculator is a tool to aid in learning concepts, not just a means of computation. Calculator (not graphing calculators) use will be allowed on tests and quizzes during the year. Absolutely no cell phones will be allowed on tests as calculators.

Supplemental Resources: <http://www.khanacademy.org/>