| Syllabus for Math-30-E3474, -K3475, -D3476 | | |
|---|---|---|
| **Semester & Year** | Spring 2018 | |
| **Course ID & Section #** | Math-30<br>E03474, K3475, D3476 | |
| **Instructor's Name** | Mr. Jon Pace | |
| **Day/Time** | M W F 1:15 – 2:30 PM | |
| **Location** | Eureka: LRC 105<br>Del Norte: Main Building, Room 29<br>KT: HTEC, Room 2 | |
| **Number of Credits/Units** | 4 units | |
| **Contact Information** | *Office hours* | **In SC 216H and in Canvas via ConferZoom**<br><br>W F: 10:30 – 11:30 AM<br>T TH: 2:00 – 3:00<br><br>Or by appointment |
| | *Email address* | jonothan-pace@redwoods.edu or Canvas Messaging |
| | *Phone* | 707 – 476 – 4222 |
| **Textbook Information** | *Title & Edition* | Algebra and Trigonometry, 7th or 8th edition |
| | *Author* | Sullivan |
| | *ISBN* | 7th edition – ISBN #: 0131430734<br><br>8th edition – ISBN #: 0132329034 |

**Course Description (catalog description as described in course outline):**

College level course in algebra for majors in science, technology, engineering, and mathematics: polynomial, rational, radical, exponential, absolute value, and logarithmic functions; systems of equations; theory of polynomial equations; analytic geometry

Graphing calculator required, TI-83 or 84 recommended.

**Syllabus for Math-30-E3474, -K3475, -D3476**

**Student Learning Outcomes (as described in course outline) :**

1. Analyze and investigate functions and equations both graphically and algebraically to include rational, linear, polynomial, radical, absolute value, exponential, and logarithmic.
2. Solve equations, systems of equations, and inequalities containing rational, linear, polynomial, radical, absolute value, exponential, and logarithmic relations.
3. Apply techniques for finding zeros of polynomials and roots of equations.
4. Apply functions and other algebraic techniques to model real world STEM applications.
5. Define a sequence as a function of the natural numbers and apply appropriate formulas to find sums of finite and infinite series.

**Special Accommodations**

College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS at 707-476-4280.

**Academic Support**

Academic support is available at Counseling and Advising and includes academic advising and educational planning, Academic Support Center for tutoring and proctored tests, and Extended Opportunity Programs & Services, for eligible students, with advising, assistance, tutoring, and more.

**Academic Honesty**

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at: www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.pdf Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods website.

**Disruptive Classroom Behavior**

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process a disruptive student may be temporarily removed from class. In addition, he or she may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at:
www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.pdf

Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods website.

**Emergency Procedures for the Eureka campus:**

Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). The Eureka **campus emergency map** is available at: (http://www.redwoods.edu/Eureka/campus-maps/EurekaMap_emergency.pdf). For more information on Public Safety, go to http://redwoods.edu/safety/ In an emergency that requires an evacuation of the building:

- Be aware of all marked exits from your area and building.
- Once outside, move to the nearest evacuation point outside your building:
- Keep streets and walkways clear for emergency vehicles and personnel.
- Do not leave campus, unless it has been deemed safe by the Incident Commander or campus authorities. (CR's lower parking lot and Tompkins Hill Rd are within the Tsunami Zone.)

**RAVE** – College of the Redwoods has implemented an emergency alert system. In the event of an emergency on campus you can receive an alert through your personal email and/or phones at your home, office, and cell. Registration is necessary in order to receive emergency alerts. Please go to https://www.GetRave.com/login/Redwoods and use the "Register" button on the top right portion of the registration page to create an account. During the registration process you can elect to add additional information, such as office phone, home phone, cell phone, and personal email. Please use your CR email address as your primary Registration Email. Your CR email address ends with "redwoods.edu." Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions.

**Recommended**

1. Math Lab: Math30L (1 or ½ unit) or Math 252 (non-credit) - https://www.redwoods.edu/math/Lab
2. I would recommend forming study groups to work on homework & prepare for exams.
3. The Academic Support Center in the library offers individual & group tutoring by appointment.

*Graphing Calculators*: A graphing calculator is required for this course. You may rent one from the Math department for $15 per semester. Follow this link for more specific details: https://www.redwoods.edu/math/Resources/Calculator-Rentals

Those in Del Norte should go to the library and speak with the librarian or the folks at the front desk.

*Phone Apps*: For Droid OS: Wabbitemu (free)

After downloading:

1. Choose **"Help me create a ROM …"** option
2. Choose TI-84 Plus C SE (very bottom)

For Iphone OS: GraphNCalc83 ($0.99)

**Classroom Environment**

It is essential to our class that both students and teacher behave in a manner that will provide a comfortable learning atmosphere. Be respectful of one another. Please feel free to ask any questions you have. Even if I just explained a concept, if you are still unsure or confused please ask for clarification. **Turn cell phones to *"vibrate"* before entering the classroom**. If your cell phone goes off during class, you will have to apologize to the class by bringing in treats for everyone the next class period.

**Exams**

There will be 4 exams worth 35% the course grade and a cumulative final exam worth 15% of your course grade. You can find the exams dates and the material each exam will cover on the course schedule. **Make-up exams will only be given if you contact me *PRIOR* to the exam.**

*Del Norte Campus*: Make exam appointments through the Academic Support Center (ASC) in the library. You must take the exams on the same day as the rest of the class. Exam days are on the course schedule and will be announced in class. I will notify the class of any changes to exam days.

# Final Exam: Wednesday, May 9th @ 1:00 – 3:00 PM

**This is the only time the final will be given so make travel plans accordingly.**

## Homework

*Online Homework:* Each section will have an online homework assignment in Canvas under the module "***Online Homework***". The assignment will be open after the class period the section was covered and will remain open for 3 full days during which time you will have unlimited attempts at each problem.

*Written Homework:* Each week I will post a short written assignment on Canvas under the module "Written Homework". Written homework assignments are due at the beginning of class each Monday.

## Quizzes

Each week there will be a quiz in Canvas under the module "***Quizzes***" on Monday after class. The quizzes will cover material from the prior week. The quizzes will remain open until Friday @ 5:00pm. Once you begin the quiz, you will have 30 minutes to complete the quiz and you only have 1 attempt at each question.

## Grades

Your final grade will be determined as follows:

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|---|---|
| Online Homework | 25% |
| Written Homework: | 10% |
| Quizzes: | 15% |
| Exams: | 35% |
| Final Exam: | 15% |

The grade breakdown is as follows:

| | | | |
|---|---|---|---|
| A | 93 - 100% | C+ | 77 - 79% |
| A- | 90 - 92% | C | 70 - 76% |
| B+ | 87 - 89% | D | 60 - 69% |
| B | 83 - 86% | F | 0 - 59% |
| B- | 80 - 82% | | |

**Guidelines for Written Homework**

1. Write your name and the week in the semester the homework is from.
2. Equations must be solved working ***DOWN*** the page lining up the = signs.
3. If more than one page is used, please staple the pages together in the upper left-hand corner.
4. If you rip your pages out of a spiral notebook you must remove all the frillies!

*** Although unlikely, I reserve the right to change this syllabus. You will be notified immediately of any changes in class & on Canvas.**

# Course Schedule: Math 30, Spring 2018

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|---|---|---|
| **Week 1** | | |
| Monday – 1/15 | | **No Class** |
| Wednesday – 1/17 | 1.1<br>1.2 | Introduction<br>Linear Equations<br>Quadratic Equations |
| Friday – 1/19 | 1.2<br>1.4 | Quadratic Equations<br>Radical Equations; Equations Quadratic in Form; Factorable Equations |
| **Week 2** | | |
| Monday – 1/22 | 1.5<br>1.6 | Solving Inequalities<br>Equations & Inequalities involving Absolut Value |
| Wednesday – 1/24 | 1.6 | Equations & Inequalities involving Absolut Value |
| Friday – 1/26 | 1.7 | Problem Solving |
| **Week 3** | | |
| Monday – 1/29 | 3.1<br>3.2 | Functions<br>Graphs of Functions |
| Wednesday – 1/31 | 3.2<br>3.3 | Graphs of Functions<br>Properties of Functions |
| Friday – 2/02 | 3.4 | Library of Functions & Piecewise-defined Functions |

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| **Week 4** | | |
| Monday – 2/05 | 3.5 | Transformations |
| Wednesday – 2/07 | 6.1 (5.1) | Composite Functions |
| Friday – 2/09 | | Exam 1 Review |
| **Week 5** | | |
| Monday – 2/12 | | **Exam 1**<br>8th Edition: Ch. 1 & 3, Sec. 6.1<br>7th Edition: Ch. 1 & 3, Sec. 5.1 |
| Wednesday – 2/14 | 3.6 | Mathematical Models: Building Functions |
| Friday – 2/16 | | Holiday |
| **Week 6** | | |
| Monday – 2/19 | | Holiday |
| Wednesday – 2/21 | 4.3 (4.1) | Quadratic Functions & their Properties |
| Friday – 2/23 | 5.1 (4.2) | Polynomial Functions & Models |
| **Week 7** | | |
| Monday – 2/26 | 5.2 (4.3)<br>5.3 (4.4) | Properties of Rational Functions<br>The Graph of a Rational Function |

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|---|---|---|
| Wednesday – 2/28 | 5.3(4.4)<br>5.4 (4.5) | The Graph of a Rational Function<br>Polynomial & Rational Inequalities |
| Friday – 3/02 | R.6<br>5.5 (4.6) | Synthetic Division<br>The Real Zeros of a Polynomial Function |
| **Week 8** | | |
| Monday – 3/05 | 1.3<br>5.6 (4.7) | Complex Numbers<br>Complex Zeros |
| Wednesday – 3/07 | | Exam 2 Review |
| Friday – 3/09 | | **Exam 2**<br>8th Edition: Sec. 3.6, 4.3 & Ch. 5<br>7th Edition: Sec. 3.6 & Ch. 4 |
| **Spring Break: 3/12 – 3/16** | | |
| **Week 9** | | |
| Monday – 3/19 | 6.2 (5.2) | One-to-One Functions; Inverse Functions |
| Wednesday – 3/21 | 6.3 (5.3) | Exponential Functions |
| Friday – 3/23 | 6.4 (5.4) | Logarithmic Functions |
| **Week 10** | | |
| Monday – 3/26 | 6.5 (5.5) | Properties of Logarithms |

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|---|---|---|
| Wednesday – 3/28 | 6.6 (5.6) | Logarithms & Exponential Equations |
| Friday – 3/30 | 6.7 (5.7) | Compound Interest |
| **Week 11** | | |
| Monday – 4/02 | 6.8 (5.8) | Exponential Models |
| Wednesday – 4/04 | | Exam 3 Review |
| Friday – 3/06 | | **Exam 3**<br>8th Edition: Ch. 6<br>7th Edition: Ch. 5 |
| **Week 12** | | |
| Monday – 4/09 | 12.1<br>(11.1) | Solving Systems of Linear Equations w/ Substitution or Elimination |
| Wednesday – 4/11 | 12.2<br>(11.2) | Matrices |
| Friday – 4/13 | 12.3<br>(11.3) | Determinants |
| **Week 13** | | |
| Monday – 4/16 | 12.4<br>(11.4) | Matrix Algebra |
| Wednesday – 4/18 | 13.1<br>(12.1) | Sequences & Series |
| Friday – 4/20 | 13.2<br>(12.2) | Arithmetic Sequences & Series |

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| **Week 14** | | |
| Monday – 4/23 | 13.3<br>(12.3) | Geometric Sequences & Series |
| Wednesday – 4/25 | 13.4<br>(12.4) | Mathematical Induction |
| Friday – 4/27 | 13.5<br>(12.5) | The Binomial Theorem |
| **Week 15** | | |
| Monday – 4/30 | | Exam 4 Review |
| Wednesday – 5/02 | | **Exam 4**<br>8th Edition: Ch. 12 & 13<br>7th Edition: Ch. 11 & 12 |
| Friday – 5/04 | | Final Exam Review |
| **Finals Week** | | |
| **Final Exam** | **Wednesday, May 9th @ 1:00 – 3:00 PM**<br>**This is the only day the final will be offered. Make travel plans accordingly.** | |

* This schedule is subject to change. I will notify you in class & on Canvas should this become necessary.