

Marshall University
MTH 130 Sec 104: College Algebra
Fall 2018

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| Section/CRN | Section 104/CRN: 3005 |
| Semester/Year | Fall 2018 |
| Days/Time | MWF: 12-12:50pm |
| Location | WAEC 3121 |
| Instructor | Dr. Michael Otunuga |
| Office | WAEC 3229 |
| Office Hours | MTWRF 10-12:00pm |
| Phone | 304 696-3049 |
| E-Mail | otunuga@marshall.edu |
| Webpage | http://science.marshall.edu/otunuga/ |
| Free Tutoring | The math tutoring lab will be open this semester, starting the second week of classes, in Smith Hall 625. The hours are 10-4 and 5-6:30 MTWR and 10-noon Friday. Math tutoring website at http://www.marshall.edu/math/tutoring/ |
| Text | College Algebra ISBN: 9781941552407 (with textbook) or 9781941552742 (with e-book only) |
| Calculator | TI-30 (any TI-30 is acceptable (TI-30X IIS recommended), TI-34 or 36 are not) |
| Prerequisites | Math ACT of 17 or above, SAT 400 |
| Course Requirements | Students will utilize Hawkes Learning System (www.learn.hawkeslearning.com) for the Learn and Practice portion of each lesson. Students will be assessed by completing Certifications (www.learn.hawkeslearning.com) in the Hawkes Learning System and taking Tests in class. |
| Course Description | Basic Concepts of algebra; Equations and Inequalities; Graphs; Study of Functions and their Graphs; Linear and Quadratic Functions; Polynomial and Rational Functions; Exponential and Logarithmic Functions |
| Course Objective | The students completing this course should be able to: <ul style="list-style-type: none"> - Understand mathematical concept of a function. - Sketch and interpret the graphs of elementary functions. - Manipulate and solve polynomial, rational, exponential, and logarithmic equations and apply to new situations in mathematics and daily life. |
| Homework | Homework will be assigned on Hawkes. Certification: Each textbook section corresponds to at least one homework (Certify) section in the Hawkes learning system. To sign in, go to learn.hawkeslearning.com and follow the onscreen prompts to enter your code. Many assignments have prerequisite sections that must be completed prior to attempting the assignment. These prerequisites are review and reinforcement of mathematical topics that support the material you are learning in class. They are listed on the course schedule as “Prep work” and you should read through the “Learn” screens and attempt the assignments prior to the lab day they are assigned for. |

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| | All assignments must be completed this semester, even if you have some certifications from previous semesters. |
| University Policies | <p>By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802</p> <p>Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment</p> <p>See the University Academic Calendar (http://www.marshall.edu/calendar/academic/) for course withdrawal dates.</p> |
| Disable Student | <p>Policy for Students with Disabilities: Marshall University is committed to equal opportunity education for all students, including those with physical, learning and psychological disabilities. University policy states that it is the responsibility of students with disabilities to contact the Office of Disability Services (ODS) in Prichard Hall 117 (304.696.2467) to provide documentation of their disability. Following this, the ODS Coordinator will send a letter to each of the student's instructors outlining the academic accommodation he/she will need to ensure equality in classroom experience, outside assignment, testing, and grading. The instructor and student will meet to discuss how the accommodation(s) requested will be provided. For more information, access the website for the Office of Disabled Student Services: http://www.marshall.edu/disabled.</p> |

How each student learning outcome will be practiced and assessed in the course

| MTH 130 Student Learning Outcomes | How students will practice each outcome in MTH 130 | How student achievement will be assessed |
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| Identify and implement appropriate solution methods for single-variable equations | Online homework, written assignments, in-class activities | Course exams and common final |
| Identify and graph standard algebraic functions | Online homework, written assignments, in-class activities | Course exams and common final |
| Interpret graphs of functions | Online homework, written assignments, in-class activities | Course exams and common final |
| Construct functions to model applications | Online homework, written assignments, in-class activities | Course exams and common final |
| Communicate written mathematics using appropriate notation and explanation where appropriate | Online homework, written assignments, in-class activities | Course exams and common final |

Attendance Policy

Attendance: Attendance is required and you must come with your text. Attendance will be taken every class day by sign-in-sheet. 2 points will be reduced from attendance grade for every missed class. Having more than **25%** absences (unexcused) may result in a course grade of F! Absences which can be excused include illness, emergencies, or participation in another university activity. Documentation from an outside source must be provided.

Exams: There will be three midterm exams as outlined in the course schedule. Exam dates are **September 12, October 10, and November 7.**

Common Final Exam: The common final exam for MTH 130 will take place on **Saturday December 8** from 2-4 pm. You may use the required calculator for the course (TI-30), but no other assistance (formula sheets, notebooks, phones, or other internet connected devices) will be permitted. **You must bring your own calculator or do without. There will be NO sharing of calculators permitted during the exam.**

Grading Policy

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| Attendance & Activities: | 15% | Scale | |
| Homework (Hawkes): | 20% | 90.00 – 100% | A |
| Exam 1: | 15% | 80.00 – 89.99% | B |
| Exam 2: | 15% | 70.00 – 79.99% | C |
| Exam 3: | 15% | 60.00 – 69.99% | D |
| Final: | 20% | Below 60.00% | |

| | Section | Subsections | Subsections | Subsections | | Additional Section | Subsections | | Homework Problems | 1st Sect. Comments | 2nd Sect. Comments |
|------------|---------|-------------|-------------|-------------|--|--------------------|-------------|--|---|--------------------|--------------------|
| 8/20/2018 | 1.1 | 3 | 4 | 5 | | | | | Pg. 12 # 5-25, 32-40, 41-52 | | |
| 8/22/2018 | 3.1 | 1 | 2 | 3 | | | | | Pg. 185-187 #1-26, 33-51, 54, 55-60, 69-73 | | |
| 8/24/2018 | 2.1a | 1 | 2 | 4 | | | | | Pg 106-108 #1-25 | | |
| 8/27/2018 | 2.1b | 5 | | | | | | | Pg. 108-110 #47-56, 61,65-67, 69, 72 | | |
| 8/29/2018 | 2.2 | 1 | 2 | 4 | | | | | Pg. 118-119 #1-33, 49-57, 59 | | |
| 8/31/2018 | 3.2 | 1 | 2 | 3 | | | | | Pg 194-196 # 1-48 | | |
| 9/3/2018 | | | | | | | | | | | |
| 9/5/2018 | 3.3 | 1 | 2 | 3 | | | | | Pg. 209-210 #1-12, 13- 21, 25-28, 34-67 | | |
| 9/7/2018 | 3.4 | 1 | 2 | | | | | | Pg. 219-221#1-6, 19-21, 29-33, 39-41, 55-66 | | |
| 9/10/2018 | Review | | | | | | | | | | |
| 9/12/2018 | Test 1 | | | | | | | | | | |
| 9/14/2018 | 2.3 | 1 | 2 | | | | | | Pg. 132-133 #1-8, 15-19 | | |
| 9/17/2018 | 2.3 | 1 | 2 | | | | | | Pg. 132-133 #9-13, 21-23 | | |
| 9/19/2018 | 1.6 | 1 | 2 | 3 | | 2.3 | 4 | | Pg. 83-84 # 1-21, 42, 43, Pg. 133 #34-60 | | |
| 9/21/2018 | 2.3 | 4 | | | | | | | Pg. 133 #34-60 | | |
| 9/24/2018 | 3.6 | 1 | 2 | | | | | | Pg. 239-241 #1-24, 25-29, 30-39 | 1 | |
| 9/26/2018 | 4.1 | 1 | 2 | | | | | | Pg 266-268 #1,2,4,9,10,12,13,14,17-20,25-31,35 | | |
| 9/28/2018 | 4.1 | 3 | 4 | | | | | | Pg. 268-269 #43-46, 49, 61,63, 66,67,68 | | |
| 10/1/2018 | 4.2 | 1 | 2 | | | | | | Pg. 281 #1-5, 8, 16, 17, 19-21, 31-37 | | |
| 10/3/2018 | 4.2 | 3 | | | | | | | Pg 281-285 # 39, 41, 42, 47, 49-53 | | |
| 10/5/2018 | 4.3a | 1 | | | | 2.6 | 1 | | Pg.299 # 1-8, 13-18, 37-40, Pg. 162 #1,4,5,6,10,13,14, 16, 34-41 | 2 | 3 |
| 10/8/2018 | Review | | | | | | | | | | |
| 10/10/2018 | Test 2 | | | | | | | | | | |
| 10/12/2018 | 4.4 | 1 | | | | | | | Pg. 317-318 # 1-3, 8, 9-12, 13-21, 36-45 | | |
| 10/15/2018 | 4.4 | 2 | | | | | | | Pg. 319 # 46-54, 61-66 | | |
| 10/17/2018 | 2.4 | 2 | | | | | | | Pg. 141 # 21, 28, 29, 30 | 4 | |
| 10/19/2018 | A.1 | 1 | 2 | | | A.2 | 3 | | Pg. 372-373 #1, 5, 6, 8, 9, 18-21, 24, 27,28, 36-41, 42-49, Pg. 388 #53, 57, 58 | | 5 |
| 10/22/2018 | A.4 | 1 | 2 | | | | | | Pg. 415 #1-8, 39, 42, 44 | | |
| 10/24/2018 | 2.5 | 1 | 2 | 4 | | | | | Pg. 152-154 #1-6, 13,14,17,23,24,25,27, 49, 50, 52, 54,55 | | |
| 10/26/2018 | 6.1 | 1 | 2 | | | | | | Pg. 443 # 1-11, 69 | | |
| 10/29/2018 | 6.1 | 3 | 4 | | | | | | Pg. 444-445 #19, 22, 23, 24, 25, 29, 31, 34, 37, 40, 41, 42, 43, 47, 49-52 | 6 | |
| 10/31/2018 | 4.5 | 2 | | | | | | | Pg. 331 #23-27,31-37, 44-46 | | |
| 11/2/2018 | 4.6 | 2 | 3 | | | | | | Pg: 345-346 #13-16, 17-22, 30,35,36,39,47,49,51,53 | | |
| 11/5/2018 | Review | | | | | | | | | | |
| 11/7/2018 | Test 3 | | | | | | | | | | |
| 11/9/2018 | 7.1 | 1 | 2 | 3 | | | | | Pg. 514-515 # 1-6, 22-38, 49, 51, 52, 53, 55, 57 | | |
| 11/12/2018 | 7.2 | 3 | | | | | | | Pg. 530-531 #22,23,25,26,27,28,29,32,33 | | |
| 11/14/2018 | 7.3 | 1 | 4 | 2 | | | | | Pg. 541-543 #1-8, 13-20, 25,26,31,37-45, 73-77 | | |
| 11/16/2018 | 7.3 | 3 | | | | | | | Pg. 543 #46-54, 61-64 | | |
| 11/26/2018 | 7.4 | 1 | 3 | | | | | | Pg. 555-557 #1-6, 19-26, 31-36,97, 98, | | |
| 11/28/2018 | 7.5 | 1 | | | | | | | Pg. 571-572 #1-12, 25-33,49-53 | | |
| 11/30/2018 | 7.5 | 2 | | | | | | | Pg. 573-574 #75, 79, 80 | 7 | |
| 12/3/2018 | 8.1 | 1 | 2 | 3 | | | | | Pg. 601 #1-15 | 8 | |
| 12/5/2018 | 8.1 | 2 | 3 | | | | | | Pg. 603-604 #58, 63, 64, 65, 70 | 8 | |
| 12/7/2018 | Review | | | | | | | | | | |

Section Comments

- 1 (no completing the square)
- 2 ($ax^n, ax^{(1/n)}$, absolute value only)
- 3 (only 1 radical expression)
- 4 ($ax^n=b$ or $x(\text{quadratic})=0$, real solutions only)
- 5 (no division)
- 6 (no oblique asymptotes)
- 7 (interest only)
- 8 (elimination optional)

MTH130 Schedule
Fall 2018