PCC Math 95, Fall 2021, Instructor: Jeff Pettit. This is a rough schedule. We may get ahead of schedule or we may fall behind. Changes will be communicated during class time. WeBWorK scores are updated into D2L three times each term: during (or soon after) each Exam.

Week and dates	Monday	Wednesday
Week 1 Sept 27 & 29	Sections 10.1, 10.2 Factoring Out the Common Factor Factoring by Grouping	Sections 10.3, 10.4 Factoring Trinomials with Leading Coefficient One Factoring Trinomials with a Nontrivial Leading Coefficient Group Quiz 1 (covers sections 10.1-10.2)
Week 2 Oct 4 & 6	Section 10.5, 10.6 Factoring Special Polynomials Factoring Strategies	Section 10.7 Solving Quadratic Equations by Factoring Group Quiz 2 (10.3-10.6)
Week 3 Oct 11 & 13	Section 11.1 Function Basics	Section 11.2 Domain and Range Group Quiz 3 (10.7-11.1)
Week 4 Oct 18 & 20 **Exam 1** covers material from Week1-3	Review for Exam 1 Section 11.3, Using Technology to Explore Functions Section 11.4 Simplifying Expressions with Function Notation	Exam 1 (covers material from Weeks 1-3) Open Work Time
Week 5 Oct 25 & 27	Section 11.5 Technical Definition of a Function	In Service – no class
Week 6 Nov 1 & 3	Sections 12.1, 12.2 Introduction to Rational Functions Multiplication and Division of Rational Expressions	Section 12.3 Addition and Subtraction of Rational Expressions Group Quiz 4 (11.2-11.5)
Week 7 Nov 8 & 10	Section 12.4 Complex Fractions Method 1; preview of Method 2	Section 12.4 (continued) Complex Fractions Review of Method 1; Method 2 Group Quiz 5 (12.1-12.3)
Week 8 Nov 15 & 17 **Exam 2** covers lectures from Week 4-7	Section 12.5 Solving Rational Equations Section 13.1 Overview of Graphing	No Class. College closed Take Exam 2 Sometime before next class Quiz 6 (12.4-12.5) exists for review and practice but is not for credit
Week 9 Nov 22 & 24	Section 13.2, 13.3 Quadratic Graphs and Vertex Form Completing the Square	Sections 13.4 Absolute Value Equations Group Quiz 7 (13.1-13.3)
Week 10 Nov 29 & Dec 1	Sections 13.5 Solving Mixed Equations	Sections 13.6, 13.7 Compound Inequalities Solving Inequalities Graphically Group Quiz 8 (13.4-13.5)
Week 11 Dec 6 & 8	Project Presentations and Final Exam Review Catch-up lectures if necessary Open Work Time	Project Presentations and Review for Final Exam Open Work Time Group Quiz 9 (tentative) (13.6-13.7)
Final Exam	Final Exam (Covers all material): Monday, December 13, 9am or by appointment (if you wish).	

A list of homework problems is listed below on the last page. Be aware that some homework problems are not on WeBWorK and need to be completed from ORCCA and submitted on paper.

Taking [ALC 95](ALC 95) appears to have a significant impact on improving overall grades in Math 95.

Portland Community College / Rock Creek Campus
17705 NW Springville Rd,
Portland Oregon 97229

Term/Course: Fall 2021 Math 95 Intermediate Algebra: 4.0 credits
CRN: 42911
Class meets: Remotely on Monday/Wednesday 9:30am-11:50am
Instructor/Office: Jeff Pettit, Rock Creek Campus, Bldg 2, Rm 210 office phone: 971-722-7681 Cell phone for texting math questions or to leave a message: 503-867-2455
Office Hours: M/W 11:50am-2:20pm; email to confirm a meeting and preferred method to meet or text to better ensure you do not wait too long to connect with the Instructor.
Contact phone: 971-722-7681 Please leave a message or text 503-867-2455. I return calls as soon as I can. Note: I can answer general math questions but can't respond to questions relating to private information (such as grades or attendance) except through PCC email.
E-mail: jeffrey.pettit@pcc.edu

Extra Help

- [Student Learning Center](#), free drop-in tutoring, Bldg 7, Rm 218 when campus is open. Virtual tutoring by Rock Creek tutors begins September 23 for math: https://www.pcc.edu/tutoring/rock-creek/
- www.pcc.edu/etutor: free online tutoring
- http://guides.pcc.edu/algebra: books, videos, and more through the PCC Library
- mathispower4u.yolasite.com: short videos
- https://www.purplemath.com/modules/index.htm: examples and videos
- https://www.khanacademy.org/ - math: videos and interactive practice problems

Course Description: Introduces algebraic concepts and processes with a focus on factoring, functions, rational expressions, solving equations (quadratic, rational, radical, absolute value), and solving inequalities. Emphasizes number-sense, applications, graphs, formulas, and proper mathematical notation. Recommended: MTH 63 or MTH 65 or MTH 70 be taken within the past 4 terms. The PCC math department recommends that students take MTH courses in consecutive terms. Prerequisites: (MTH 63 or MTH 65 or MTH 70) and (RD 90 and WR 90) or IRW 90 or equivalent placement. Audit available. (For detailed information, see the Course Content and Outcome Guide).

Required Materials
Textbook: **ORCCA:** Open Resources for Community College Algebra 2nd Edition which is a free textbook, available as a webpage, a downloadable pdf or for purchase from the bookstore or Amazon. Visit the following site for free pdf and also for Amazon purchase options:
https://spaces.pcc.edu/display/MS/ORCCA
Calculator: PCC no longer requires graphing calculators for Math 95 or most college-level courses. Instead, you will need to become familiar with an online graphing software; Desmos (used primarily for MTH 112 and below) or GeoGebra (a similar program to Desmos but more often used for higher math courses). You are welcome to use a scientific calculator during class and possibly for some or all parts of Exams and Quizzes. You might want to familiarize yourself with your scientific calculator before the first quiz.
Other: pencil, eraser, ruler or straightedge, 8½ x 11 paper, graph paper

Important Dates Last day to drop (no transcript record, tuition refund): Tuesday, October 5
Last day to add this class is Tuesday, October 5.

Last day to withdraw (W on transcript, no refund) or change grading options: Saturday, December 4. Additional Add/Drop information can be found at www.pcc.edu/registration/dropping.html.

Extra help: The Student Learning Center offers free tutoring. The Center is located in Bldg 7, Rm 218. Additional office hours are available by request. Also, free online tutoring is available – see https://www.etutoringonline.org/ for information. Also, feel free to contact me via email, text or telephone for additional help.

Course Assessment: Grades will be based on the following:

Part 1 (Lowest score is dropped)	Part 2 (Service Learning can count for 10% of Final Exam)
Homework/In-Class participation (20% of final grade)	Final Exam (20% of final grade)
Quizzes (in-class group or solo at home) (20% of final grade)	Community Based Learning (CBL) which is optional. CBL would count for up to 10% on final exam. See CBL section for more details. Consult instructor before beginning CBL.
Exam 1 (20% of final grade)	
Exam 2 (20% of final grade)	
Project (20% of final grade)	
Note: lowest of the above scores is dropped	

PCC's evaluation guidelines are available at: https://www.pcc.edu/student-records/grading/

Final Course Grade: Grading is based on the three highest scores from Part 1 above and your score from Part 2. Grades will be posted on MyPCC no later than the Monday following the Final Exam. PCC does not use "+" or "-" for final grades.

$$90\%-100\% = A$$
$$80\%-89\% = B$$
$$70\%-79\% = C$$
$$60\%-69\% = D$$
$$\text{below } 60\% = F$$

Two alternative grading options (instead of a letter grade A – F):
1. You may opt for a grade of Pass/No Pass (P/NP) for this course. You must receive a final percentage of 70% or better (C grade) to receive a Pass. Percentages under 70% will result in a No Pass.
2. An Audit (AU) is allowed if you attend at least two-thirds of the class meetings. Requests for an Audit must be submitted in a signed and dated letter by the third week of the term. Requests will be granted at the instructor's discretion based on class enrollment.

Note: If you are considering either of the above grading options, consult your academic advisor to determine if either the Pass/No Pass or Audit option is recommended for your degree/certification/transfer/etc. Also, if you are receiving financial aid check with your financial aid advisor to see if the Pass/No Pass or Audit option is advisable.

An Incomplete (I) may be given when the quality of work is satisfactory (C or better), but for some minor, yet essential requirement, the course has not been completed. An Incomplete is reserved for emergency situations only. Requests for an Incomplete shall be made in either an email from the student's pcc.edu email address, or (preferably) a signed and dated letter; state the reasons why an Incomplete would be appropriate, the conditions needed for completion of the work, the agreed upon completion date. Requests will be granted at the Instructor's discretion.

Withdrawal from a Course: It is the student's responsibility to drop the course if they are no longer planning on attending. In order to drop you must log in to my.pcc.edu and go to the "Register for classes" link and follow the steps. You may receive a full refund if you drop the course before 10pm of the Saturday of the first week of the term. If you do not properly withdraw from a course by the end of the 8th week, you may receive an F for the course. If you withdraw by the first week, a "W" grade will not appear on your transcript. After the eighth week of the term you cannot withdraw from the course. The following link has additional information: https://www.pcc.edu/enroll/registration/dropping.html

Homework and Attendance: Homework problems are expected to be begun after completion of each text section and discussed at the beginning of the following class. Unlike many math classes at PCC, neither attendance nor homework is required, though it is a strongly recommended option as one of your five criteria for evaluation and overall grade and will likely affect your understanding of the material and performance on tests. If for any reason, you discover that you will miss a significant number of classes, please see the Instructor as soon as you find this out to discuss options that will insure your understanding of the material. Since much of this material is covered in most high school Algebra I/Algebra II curricula, this is a review class for many or most students. If you finish homework assignments with complete correctness, you will be well prepared for Exams. Do more or less of the assignments as you see fit, but do as much as needed in order to become an expert with the material. Come prepared with homework questions for the next class. Most students need to attend all classes and do all homework assignments. Some students do very well in this class with partial completion of homework and partial attendance. Some believe they will do well with little effort, but discover too late that they will not. The first part of class time will be used to answer homework questions. I encourage everyone to ask questions, so please come prepared. If you do not get all of your questions answered, then please see me after class, during break, during my office hours, get help in the Learning Center, or ask other students.

Following are suggested guidelines for doing homework assignments, exams and exam corrections:
- Do work carefully and clearly on paper including writing answers in proper notation. This helps with success on paper Exams.
- Write neatly.
- Do not convert fractions to decimals. If a problem is presented in decimals, give your answer in decimal form. If a problem is presented in fractional or integer form, the answer should be presented in reduced fractional form in order to receive full credit. (i.e.: $2/3 \neq 0.67$)

Projects: Soon after Exam 1 (earlier is encouraged), students will form Project groups (let me know if you are having trouble with this) and choose a topic to study, research a data set the group finds interesting and then prepare an examination of that data set as it relates to course topics (domain and range, increasing/decreasing, maximum and minimum values, functions that fit the data well). Groups will present their findings to the class, including an interpretation of their findings. A sample draft Project and a grading rubric will be provided on D2L.

Quizzes: Quizzes are designed to be completed in class with students working together in small groups. If, for some reason, a student cannot attend class during the Quiz time, Quizzes can be taken outside of class time.

Class Participation: All students are expected to participate in classroom discussions, group activities, the group Project and practice problems. Studies find that one of the best ways to learn is by participating in a discussion with others. When practice problems are given, share solution(s) with classmates and

discuss your individual methods for solving the problem. There are a variety of benefits to be gained from this activity: By communicating orally, you can quickly determine if you are on the right track and get immediate assistance if you are not; in addition, you will have the opportunity to observe and discuss alternative methods; in addition, teaching or being taught by a peer has benefits to both people – for the learner, you will have one-on-one assistance from someone who is also new with the concept and may be able to fill in the small details/gaps that are causing confusion; likewise, a student who teaches another can learn a concept to a much deeper level. All of these benefits occur in (and demonstrate the advantages of) being involved in study groups outside of class.

Exams: See schedule. PCC requires Exams be given with no notes and no graphing calculator. Exams 1, 2 and the Final Exam are graphing calculator free, but a basic 4-function and/or a scientific calculator are allowed for most or all of the Exam. Show your work on exams for full credit. Exams 1 and 2 will be returned with each problem marked with a check mark (correct, full credit), a "1/2" mark (at least one step was correct, at least one step was incorrect, half credit), an "X" (no steps were correct, no credit) or occasionally an "OK" (full credit given, but aspects merit attention and full credit may not be offered in the future for similar mistakes). Any small deduction is usually due to a minor math error related to prerequisite material (e.g. a sign error).

Exam Corrections: For problems on an Exam that were given partial or no credit, you have the option to submit corrections for any or all of the incorrect problem(s). The reason this option is offered is because you will likely learn more fully and more deeply if you correct an incorrect problem than if you were to get the problem correct on your first attempt. For this reason, corrections should be made soon after the test is returned, though I will accept corrections up until the class before the Final Exam. Guidelines for submitting test corrections:
- Do not erase your original answer or work
- On a separate piece of paper or (preferably) on the same page in a different color, do the problem correctly, showing your steps.
- Write sentence(s) describing what you did incorrectly and what you did to correct the problem.
- You may use any available resources to do corrections (course text, tutor, peer help, etc.) other than direct copying of other student's work, or direct copying of an explanation (from the teacher or otherwise). In other words, your corrected work should be your own.
- Submit corrections to the instructor with your original work and original answer.
- You will earn 50% of the points missed for correct answers that show clear and correct steps and correct sentence explanations.

Community-Based Education: Community-Based Education, CBE is a method of education requiring volunteer work in the community with extensive written reflection on the part of the volunteer. Community-based learning for this class could consists of arranging a 1-hour per week tutoring session with a local grade school or middle school (or a tutoring resource) for the majority of the term. At the end of the term, students submit a daily journal and summary along with final paperwork outlining hours spent. If you wish to participate, please see the Instructor during the first week of class for details and the appropriate forms (available at pcc.edu/community-based-learning/). Do not begin your CBE project without meeting with the Instructor first. Tutoring location needs to be arranged no later than the second week of class, barring any special circumstances, and the contact information sheet needs to be submitted before that date, or soon thereafter. Successful completion of the Community-Based Learning component will count for 10% of your Final Exam grade. For example, if you successfully complete the Community Based Learning option (i.e. you earn a 100%, which is almost always the case) and you earn 75% on your Final Exam, your score would be raised to 85%

Student Rights/Code of Conduct/Academic Integrity: For your convenience, feel free to use the following links for a description of you student rights, code of student conduct and expectations for academic integrity: https://www.pcc.edu/about/policy/student-rights/

Sanctuary Statement: PCC is a sanctuary college. For more information and resources, see https://www.pcc.edu/dream/undocumented/.

Disability Services: DS works with students and faculty to minimize barriers. If students elect to use approved academic accommodations, they must provide in advance formal notification from Disability Services to the instructor. See pcc.edu/disability/

Title IX Statement: PCC is committed to creating and fostering a learning and working environment based on open communication and mutual respect. If you believe you have encountered sexual harassment, sexual misconduct, sexual assault, or discrimination based on race, color, religion, age, national origin, veteran status, sex, sexual orientation, gender identity, or disability please contact the Office of Equity and Inclusion at (971) 722-5840 or equity.inclusion@pcc.edu.

Key Steps to Success in Math 95: I want everyone to pass this course. Of course, it is student effort that will achieve this goal. The following may be obvious, but I hope a reminder will improve study habits:
1. Taking a class involves more than signing up for a course. Be clear and honest with your goals. You should be in class because you want to be there, not because you believe you have to.
2. Don't burden yourself by taking too many courses/credits. At the beginning of the term the workload is not nearly as much compared to later on in the term, when your courses will become more difficult and demand more of your time, assignments are due, you have to study for exams, and you are reviewing for the final. Please make sure that you put the required time into this course in order to do well. A general rule of thumb is figuring on approximately 2-3 hours of studying outside of class for every hour spent in class. If you are working full time, then I recommend you **do not take too many courses**. Know your limits, both on campus and off campus (family, work, etc.), and plan accordingly.
3. Arrive to class on time. You want to establish a routine. People who arrive early can prepare themselves physically and mentally. Arriving on time allows you to hear the review of homework; even if you did the homework correctly, hearing problems repeated again increases your understanding and prepares you for the next concepts.
4. Pay attention. Ask questions. Take good notes.
5. Participation is part of learning. Listening to someone talk about a subject does not mean you are learning, even if you agree with the speaker. You should talk to other people about what you are thinking, and allow others to challenge your point of view.
7. Ask questions. Asking questions can be difficult. A common cause of this difficulty is not knowing what to ask. When you are studying at home, have a piece of paper next to you. When you encounter some difficulty, attempt to express what the difficulty is in writing. Bring in your written questions to class, and get your questions answered. You will find that, with practice, asking questions in class will become easier. A second benefit is that by writing down the questions on a piece of paper, you will occasionally answer your own question.
8. Do mathematics everyday, even if it is just for 15 minutes. Doing problems every day is ideal but you do not have to do paper-pencil calculations; just bring it into memory. Think about it.
9. Do not cram at the last minute. Study in small amounts throughout the week. "Cramming" often results in forgotten information. It is also useful to go back regularly and redo some problems you have completed from previous sections.
10. If you are having trouble understanding the material or doing well on Exams, get help. Get help get help get help! Few people do well learning alone. Come see me or schedule time to go to the Learning

Center in building 7 for free tutoring. You may also find Khan Academy or Purple Math are helpful websites. The campus library has books on these topics as well as videotapes. Also, check your local library. Libraries carry CD-ROMs, DVDs, videos, and many help books on algebra. Ask a classmate or another knowledgeable friend for assistance. A great source of help is joining or forming a study group.
11. Take care of yourself. Eat healthy, exercise, get plenty of rest, and enjoy life!

Section	WeBWorK Problems (discuss with Instructor if you wish to submit homework without using WeBWorK)	Paper-and-pencil problems to complete from the ORCCA textbook
10.1	9, 11, 13, 17, 21, 25, 29, 31, 35, 39, 43, 45	
10.2	7, 9, 11, 13, 17, 19, 21, 23, 27, 29, 33, 35	
10.3	11, 13, 15, 17, 19, 21, 27, 35, 37, 41, 43, 47, 49, 53, 55, 59, 61, 63	
10.4	9, 11, 13, 15, 19, 21, 25, 29, 31, 33, 37, 41, 43, 47, 49, 71, 73	
10.5	13, 15, 17, 19, 21, 23, 27, 31, 35, 37, 39, 45, 49, 55, 57, 61, 63, 67, 69, 71, 73, 79, 81	
10.6	5, 11, 17, 19, 23, 25, 29, 31, 35, 37, 41, 43, 45, 47, 49, 53, 57, 59, 63, 65, 67, 69, 71	
10.7	11, 13, 15, 17, 19, 21, 25, 27, 29, 33, 35, 39, 41, 45, 47, 51, 53, 67, 69, 71	
11.1	11, 17, 19, 21, 27, 31, 33, 37, 39, 41, 43, 45, 47, 49, 51, 59, 61, 63, 65, 67, 69, 75, 81, 89, 93, 97	
11.2	9, 11, 13, 15, 17, 21, 23, 29, 35, 37, 43, 47, 49, 53, 57, 59, 61, 69, 71, 75, 77, 81	
11.3	3, 7, 9, 15, 19, 21, 25, 27, 29, 31, 33, 41, 45, 47	
11.4	9, 11, 17, 21, 23, 25, 29, 31, 33, 35, 37, 39, 41, 43	
11.5	1, 5, 7, 9, 11, 13, 15	
12.1	1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 23, 25, 29, 31, 33, 35	
12.2	21, 23, 27, 29, 31, 33, 35, 37, 39, 41, 45, 49, 63, 65, 71, 75, 77, 79, 83, 87, 91, 93, 95, 97	
12.3	19, 21, 23, 25, 27, 29, 31, 35, 39, 41, 43, 45, 49, 53	
12.4	9, 11, 13, 15, 17, 19, 25, 27, 29	
12.5	17, 19, 21, 23, 25, 27, 29, 35, 37, 41, 47, 51, 53, 55, 57, 61, 71, 75, 77, 79, 81	
13.1	1, 5, 7, 9, 11, 15	1, 5, 7, 9, 11, 15
13.2	15, 25, 29, 31, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 57, 59, 61, 63, 65, 71, 75, 77, 79, 81, 85, 87	25
13.3	3, 7, 9, 13, 17, 21, 23, 29, 31, 35, 37, 47, 49, 51, 55	47, 49, 51, 55
13.4	9, 11, 15, 17, 19, 23, 25, 27, 29, 35, 37, 41, 45, 47, 49	11
13.5	3, 5, 11, 13, 15, 17, 21, 25, 27, 29, 31, 33, 37, 41, 43, 45	
13.6	13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 43, 39	
13.7	9, 11, 15, 17, 19, 21, 25, 27, 29, 35, 37	9, 11