**MATH 90-BEGINNING ALGEBRA, FALL 2019**

*Instructor: Dr. Sirin Budak*

*Office: B335 Science Building*

*Email:* [*sbudak@uwsp.edu*](mailto:sbudak@uwsp.edu)

*Phone: (715) 346-3968*



**Course description & content**:

**MATH 90.** Beginning Algebra. 3 cr. Real numbers, solving linear equations, exponents, polynomials, rational expressions. Algebra for those with low placement test scores who need practice in fundamental math skills.

Prereq: None

***\* This course does not count toward a degree***

**Class hours**: Class Hours: Tuesday 3:30-4:45 pm -CCC 206

                      Wednesday: 3:45-5:00 pm-CCC 206

Tutoring Hour: Thursday  4:00-4:50 pm- CCC 302 (tutoring lab)

**Office hours**: Friday 12 – 1 pm (study sessions if needed)

**Required Textbooks/Resources**:

* Elementary and Intermediate Algebra, 5th Edition, Tussy and Gustafson.

**Other required materials**: Scientific calculator, Stiki-notes, ruler, colored pencils or markers. It is highly encouraged to have a 3-ring binder to organize class handouts and assignments. [Note: using cell phones, tablets, or other electronic devices on tests will not be allowed.]

***Course goals:***

•  Students will examine, explore, and strengthen their understanding of Real numbers, solving linear equations, exponents, polynomials, rational expressions.

•  Students will demonstrate the ability to talk enthusiastically and deeply about mathematical concepts/ideas.

•  Students will explore methodologies/theories related to the teaching & learning of rational numbers, data analysis, and probability along with effective questioning techniques to develop deep mathematical understanding.

•  Preservice teachers will develop and practice habits of reflection and examination of teaching practices.

•  Students will strengthen their ability to problem solve and reason with mathematical content.

•  Our collective disposition towards mathematics will be enhanced. The utility of mathematics will be appreciated and valued. Mathematics will be seen as a challenging and enjoyable endeavor.

**Student outcomes**:

* To simplify algebraic expressions by using the properties of real numbers.
* To solve equations and inequalities.
* To graph linear equations and inequalities in two variables and three forms.
* To add, subtract, multiply and divide polynomials.
* To factor polynomials
* To use quadratic formula to solve quadratics with rational values.

***An undergraduate student should expect to spend a minimum of 9 hours total for this course.***

**Disabilities:** If you have a disability, it is your responsibility to contact the Office of Disability Services during the first two weeks of classes and discuss accommodations with the instructor. For more information use the following link: <http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyinfo.pdf>

**Religious Beliefs:** Students’ sincerely held religious beliefs will be reasonably accommodated with respect to all examinations and other academic requirements. According to UWS 22.03, you must notify the instructor within the first three weeks of classes about specific dates which require accommodation.

**Students’ Rights & Responsibilities**: In addition to the policies and expectations listed above please refer to the following link for more information concerning your rights and responsibilities as a UWSP student: <http://www3.uwsp.edu/stuaffairs/Documents/RightsRespons/rightsCommBillRights.pdf>

**Grading** (components/weighting of grade and scale for assigning final grades):

|  |  |
| --- | --- |
| Grade component | % of overall grade |
| Tests (3) | 30 |
| WebAssign Quizzes | 30 |
| Online Discussions | 15 |
| Mindset Course | 10 |
| Final Exam | 15 |

\* - indicates rubric and additional description will be provided

The following scale will be provided to assign final grade:

|  |  |  |
| --- | --- | --- |
| 94 -100% = A | 90 – 93% = A- | 87 – 89% = B+ |
| 83 – 86% = B | 80 – 82% = B- | 77 – 79% = C+ |
| 73 – 76% = C | 70 – 72% = C- | 67 – 69% = D+ |
| 60 – 66% = D | Less than 60% = F |

***\*There will be a tentative course calendar posted and continuously updated on Canvas as an addendum to this syllabus.***

|  |  |  |
| --- | --- | --- |
| Week 1  Sept 3-5 | Mindset videos  1.1  Introducing the Language of Algebra  1.2  Fractions | Online |
| Week 2  Sept 10-12 | 1.3  The Real Numbers  1.4  Adding Real Numbers; Properties of Addition  1.5  Subtracting Real Numbers  1.6  Multiplying and Dividing Real Numbers; Multiplication and Division Properties | Face to Face |
| Week 3  Sept 17-19 | 1.7  Exponents and Order of Operations  1.8  Algebraic Expressions  1.9  Simplifying Algebraic Expressions Using Properties of Real Numbers | Online |
| Week 4  Sept 24-26 | 2.1  Solving Equations Using Properties of Equality  2.2  More about Solving Equations | Face to Face |
| Week 5  Oct 1-3 | 2.3  Applications of Percent  2.4  Formulas | Online |
| Week 6  Oct 8-10 | 2.5  Problem Solving  2.6  More about Problem Solving | Face to Face |
| Week 7  Oct 15-17 | 3.1  Graphing Using the Rectangular Coordinate System  3.2  Graphing Linear Equations  3.3  Intercepts | Online |
| Week 8  Oct 22-24 | 5.1  Rules for Exponents  5.2  Zero and Negative Exponents  5.3  Scientific Notation | Face to Face |
| Week 9  Oct 29-31 | 5.4  Polynomials  5.5  Adding and Subtracting Polynomials | Online |
| Week 10  Nov 5-7 | 5.6  Multiplying Polynomials  5.7  Special Products  5.8  Dividing Polynomials | Face to Face |
| Week 11  Nov 12-14 | 6.1  The Greatest Common Factor; Factoring by Grouping  6.2  Factoring Trinomials of the Form x2+ bx + c | Online |
| Week 12  Nov 19-21 | 6.3  Factoring Trinomials of the Form ax2+ bx + c  6.4  Factoring Perfect-Squares Trinomials and the Difference of Two Squares | Face to Face |
| Week 13  Nov 26-28 | 6.6  A Factoring Strategy  6.7  Solving Quadratic Equations by Factoring | Online |
| Week 14  Dec 3-5 | 10.2.2 The Quadratic Formula (Basics only; consider only rational values.)  7.1 Simplifying Rational Expressions | Face to Face |
| Week 15  Dec 10-12 | 7.2.3 Convert Units of Measurement  7.8 Proportions and Similar Triangles | Online |
| Final Week |  | Face to Face |