

Master Course Syllabus

Your College, Your Future



Established 1969

MAT-032 Developmental Mathematics

Course Number	MAT 032
Course Title	Developmental Mathematics
Credit Hours	3
Prerequisites	Accuplacer scores or designated scores on other instrument
Course Description	This course includes the study of integers, rational numbers, percents, basic statistics, measurement, and geometry, and basic algebra concepts. Application skills are emphasized.
Course Objectives	<p>Upon satisfactory completion of this course, the student will be able to:</p> <p>I. Solve problems involving integers.</p> <p>A. Graph and compare integers; find absolute values and opposites.</p> <p>B. Add, subtract, multiply, and divide integers.</p> <p>C. Use order of operations to simplify expressions with integers. D. Solve application problems involving integers</p> <p>II. Solve problems involving rational numbers.</p> <p>A. Graph and compare rational numbers; find absolute values and opposites.</p> <p>B. Add, subtract, multiply, and divide rational numbers.</p> <p>C. Use order of operations to simplify expressions with rational numbers.</p> <p>D. Solve application problems involving rational numbers.</p> <p>III. Solve problems involving percents.</p> <p>A. Convert between percents, fractions, and decimals.</p> <p>B. Solve application problems involving percents and judge the reasonableness of the answer.</p> <p>IV. Solve problems involving basic statistics.</p> <p>A. Find mean, median, mode, and range for a set of data</p> <p>B. Read and interpret tables and graphs</p> <p>C. Solve application problems involving statistics.</p> <p>V. Solve problems involving basic algebra</p> <p>A. Evaluate algebraic expressions</p> <p>B. Combine like terms</p> <p>C. Use the distributive property to simplify expressions</p> <p>D. Solve single and multi-step equations using the addition and multiplication properties of equality</p> <p>E. Use algebra to solve application problems</p> <p>VI. Solve problems involving geometry</p> <p>A. Identify basic concepts and figures</p>

Master Course Syllabus

	<p>B. Calculate perimeter/ circumference and area for two-dimensional geometric and composite figures</p> <p>C. Find volume of three-dimensional geometric figures</p> <p>D. Solve application problems involving geometry</p> <p>VII. Solve problems involving measurement</p> <p>A. Convert from one unit of measure to another within and between the Metric and American Systems</p> <p>B. Recognize, use, and calculate the metric units and US measures</p> <p>C. Solve application problems using metric and US measures</p>
Course Developer	
Means of Instruction	Lecture/Discussion
Required Textbook/Written Materials/Supplies	<i>See online Booklist for current book.</i>

Master Course Syllabus

General Education Core Competencies

General Education Core Competencies	Course Methodology, Content and/or Assessment
<p>Communication: Students will be able to communicate effectively through reading, writing, speaking and listening.</p> <ul style="list-style-type: none">• Prepare written documents in a professional manner.• Develop oral communication skills to present information in a professional and appropriate manner.• Demonstrate appropriate listening skills in one-on-one and small and large group settings.	<p>The student is required to participate in class discussions and to work in small groups to demonstrate problem solving skills.</p>

General Education Core Competencies	Course Methodology, Content and/or Assessment
<p>Mathematical Reasoning: Students will apply those mathematical skills appropriate to their program of study.</p> <ul style="list-style-type: none">• Analyze and solve mathematical problems needed in the workplace, daily life and educational environment.• Interpret data using analytical methods.	<p>Students will be able to use their mathematical skills to identify and solve real world mathematical problems in their everyday life.</p>
<p>Critical Thinking: Students will employ effective processes for resolving problems and making decisions.</p> <ul style="list-style-type: none">• Identify problems and potential causes.• Solve problems using basic research, analysis and interpretation.• Evaluate results of solutions and revise strategies as indicated by findings.	<p>Develop possible solutions to real world mathematical problems.</p>

Master Course Syllabus

<p>Technology Utilization: Students will apply knowledge of computers on a level compatible with job and/or educational demands.</p> <ul style="list-style-type: none"> • Demonstrate a basic knowledge of computer applications including word processing, spreadsheets, databases, and presentation software. • Use basic operating system functions competently (e.g. store and retrieve data, load software). • Demonstrate communication and research skills through use of the internet. 	<p>Students are encouraged to utilize the internet to reinforce the mathematical concepts learned in class.</p> <p>Email is used to communicate with the instructor for homework assignments and turning in assignments.</p>
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General Education Core Competencies	Course Methodology, Content and/or Assessment
<p>Interpersonal Skills: Students will deal effectively and appropriately with others.</p> <ul style="list-style-type: none"> • Interact well with individuals and groups from diverse backgrounds and cultures. • Work with others in situational analysis, problem solving, and task accomplishment. • Demonstrate respect for the rights, work, and views of others. 	<p>The student will demonstrate the ability to work independently as well as in group settings to identify, analyze and solve real-world mathematical problems.</p>
<p>Professionalism: Students will exhibit professionalism through observances of a code of ethics, a sense of responsibility, good habits, and a positive attitude.</p> <ul style="list-style-type: none"> • Demonstrate personal and business integrity and ethics. • Recognize, manage, and cope with the transitions of change. • Utilize informational resources for lifelong learning. 	<p>The student will demonstrate these competencies by being responsible for their own conduct and respecting the rights of their instructor and fellow students in the classroom.</p>

Master Course Syllabus

College Policies

Policy Type	Policy Description
Attendance Policy	<p>Williamsburg Technical College does not require specific attendance in a course. Acknowledging that participation supports student success in coursework, however, individual instructors may set attendance guidelines for the course. Those specific guidelines must be included in the course syllabus. (<i>See Syllabus Addendum provided by the instructor.</i>)</p> <p>In addition, students must attend during the first two weeks of class or inform the instructor of their intent to attend to remain on the class roster. If no prior arrangements have been made and the student does not attend during the first two weeks following the semester start date, the student will be dropped as a “no show” from that course following the second week of class.</p> <p>Class rosters will be final as of the end of the second week of classes.</p> <p>Students may withdraw from a class at any time by completing a withdrawal form in the Student Services Office. A student can only receive a “WP” grade if withdrawal is completed in the Student Services Office prior to the last date to receive a “WP” grade published in the academic calendar. Students who fail to withdraw by the specified time will receive a letter grade for the course. For specific procedures related to this policy, refer to WTC Procedure D-23.1.</p>
Policy Type	Policy Description
Policy for Students with Disabilities	<p>The Student Affairs Division provides counseling and support services which help students with disabilities to pursue academic programs of their choice and participate fully in campus life.</p> <p>The AVP for Student Affairs can arrange counseling, special parking, priority registration, and other reasonable services needed by students with disabilities. Students with disabilities are encouraged to contact the AVP for Student Affairs to discuss needs and concerns as they arise.</p>
Policy for Academic Misconduct	<p>All forms of academic dishonesty including, but not limited to, cheating on tests, plagiarism, collusion, and falsification of information will call for discipline. See the Student Code & Grievance Procedure in the Williamsburg Technical College Catalog for details.</p>

Master Course Syllabus

Grading Policy	<p>The College operates on the semester hour system, and the following symbols are used in grading:</p> <p>A-- Excellent B -- Above Average C -- Average D -- Passing F -- Failure I -- Incomplete WF -- Withdrawal while failing WP -- Withdrawal while passing</p>
Policy for Class Safety and Emergencies	<p>Injuries must be reported to the AVP for Student Affairs immediately. Insurance claim forms are available in the Student Affairs division. Please refer to the college catalogue for more information on how Williamsburg Technical College addresses safety and emergency issues. For additional information, contact Student Affairs at 843.355.4162.</p> <p>Students taking coursework at off-site locations are responsible for reading and adhering to all safety instructions and guidance at the off-site location.</p> <p style="text-align: center;">Health Services and First Aid</p> <p>Williamsburg Technical College is a commuter institution; therefore, infirmary facilities are not provided. Basic first aid for minor injuries is available, and first aid kits are located in various departments of the College. Major illness or injury will be treated by health professionals. The campus is located adjacent to Williamsburg Regional Hospital.</p> <p>Each student is covered by accident insurance at no additional cost. This group insurance covers the student while on campus and during college-sponsored group travel.</p>