A+dvancer Lab

Educational opportunity Fund
College Summer Institute

Special 5-week session: July 06 to August 14
Lab Hours: 1:00 to 3:00, Monday to Thursday
MAS 214

Instructor: Thomas A Roe
Office: CAR105
Tutorial Hours: See above
Office Phone: (732)-224-2529
Email: troe@Brookdalecc.edu

Required Materials
- This course has no assigned textbook or workbook. You will receive whatever materials you require, including paper, pencils and other materials.

Course Description
This lab uses the A+dvancer Program to help you qualify for – or even skip – certain math courses. A+dvancer will identify your strengths, suggest coursework to improve your performance, and then help you proceed to the next level. You will also have a learning assistant, who can help with more challenging material, and additional support services following your classroom session.

Course Purpose
Most majors require college level math proficiency. This lab will help you begin your college education at a more advanced level, and achieve math proficiency in four weeks rather than several months of remedial courses.

Course Learning Outcomes

1. Gain proficiency with all of the math skills you require for your intended course through online practice
2. Understand mathematical concepts.
3. Begin your math education at a higher level and finish earlier.
**Student Learning Goals**

You should create a few personal learning goals and list them here so you can mark your progress in this course. Begin by listing your current Accuplacer score and the score you plan to achieve.

- Current Comp. Score ______  Desired Comp. Score _______
- Current Algebra Score______  Desired Algebra Score_______

**Classroom Procedures**

- When you arrive at your lab session, sign in to the A+dvancer website and begin your lesson(s) for the day. You should remain logged in until the end of the session.
- If you have questions for the Lab Assistant, feel free to approach him at any time. This includes problems with the computer, the A+dvancer program, or the mathematical material itself.
- IMPORTANT: Do NOT end your session by clicking “X” (Close). If you do, your session will not end and you cannot sign in again. Only an A+dvancer technician can assist you if this occurs. You should log out using the onscreen command instead.
- Following the classroom session, the hours from 10:45 to 12:30 are designated for support and independent study. You may use any of our facilities to continue your work or ask any questions.
- When you complete an entire module (Computation or Algebra), you will receive a permission slip for retaking that section of Accuplacer at the Testing Center. When you complete and pass that module, you should return to the Advancer Lab and notify the Lab Assistant.
- If you have a problem attending a session or sessions, contact the A+dvancer Lab Assistant at the above office extension or email for assistance. Sessions are not optional.
- When you complete the computation modules, you must retake that portion of the Accuplacer test. You may return and begin the A+dvancer algebra modules when you have passed.

**Participation**

You can and will succeed when you:

- Attend every classroom session, and focus on the material during session time.
- Access the system on campus or at home for additional study and practice.

**Recommended Study Habits & Tips**

You can excel in this course by remembering some important daily requirements:

- Maintain a healthy diet and do not neglect your protein intake. This is vital for brain function.
- Never sacrifice sleep! A sleepy brain has trouble recalling information, and can not learn new mathematical concepts.
- Do not study for excessive periods without a break. Students can improve their learning by studying for sixty- to ninety-minute intervals, then taking a thirty-minute break before resuming. Stretch your legs, perform household chores, enjoy a meal or snack, and so on. This will help you relax and stimulate blood flow.
**Tips on Using the Syllabus**
- Most importantly, do not lose this syllabus! It contains your schedule, contact information for the learning assistant and information on participation.
- Remember to create and list your personal goals, and then check them off as you achieve them.

**Assessment**

Your Accuplacer score decides the level at which you begin your studies. As shown in the chart below, the higher the score, the higher the course you can take. A score of at least 70 in computation and 86 or higher in algebra will allow you to avoid remedial courses and immediately begin working toward your degree. College level scores will permit you to focus on your major without delay.

A score of... qualifies you for...

**Computation**

<table>
<thead>
<tr>
<th>Computation</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>71 -- 120</td>
<td>see Algebra placement</td>
</tr>
<tr>
<td>36 -- 70</td>
<td>MATH 015</td>
</tr>
<tr>
<td>20 -- 35</td>
<td>MATH 011 &amp; 012</td>
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**Algebra**

<table>
<thead>
<tr>
<th>Algebra</th>
<th>Course</th>
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<tbody>
<tr>
<td>87 -- 120</td>
<td>For Math majors: MTH151</td>
</tr>
<tr>
<td>77 -- 86</td>
<td>For other majors: MATH 131, 136, 137, 145</td>
</tr>
<tr>
<td>20 -- 76</td>
<td>MATH 021 &amp; 022 (if you plan 151 or 161)</td>
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<tr>
<td></td>
<td>MATH 025 (for MATH 151, 161)</td>
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**Assignment Descriptions**

A+dvancer will select and assign your course material based on your scores and study progress. This means that students preparing for the same course may not be assigned the same practice problems at the same time, and therefore may have difficulty working in pairs or groups. You should consult your learning assistant for help, and attend the one-on-one sessions.

The available math lessons are:

**Elementary Algebra**

This module assesses and offers 22 lessons that address the following skills:

- Equations, Inequalities, and Word Problems: linear equations
- Equations, Inequalities, and Word Problems: graphic properties
- Equations, Inequalities, and Word Problems: quadratics
- Equations, Inequalities, and Word Problems: systems
- Algebraic Expressions: multiply whole number by a binomial
- Algebraic Expressions: combine like terms
- Algebraic Expressions: evaluate algebraic expressions
• Algebraic Expressions: multiply binomials
• Algebraic Expressions: factor quadratic expressions
• Algebraic Expressions: factor the difference of squares
• Algebraic Expressions: square binomials
• Algebraic Expressions: factor quadratic expressions with \( a=1 \)
• Algebraic Expressions: simplify algebraic expressions
• Signed and Rationals: order and relative size of rationals
• Signed and Rationals: perform operations with signed numbers

**Arithmetic**

This module assesses and offers 24 lessons that address the following skills:

• Applications and Problem Solving: integers
• Applications and Problem Solving: simple graphs
• Applications and Problem Solving: solve simple word problems
• Applications and Problem Solving: fractions, ratios, percent
• Applications and Problem Solving: multi-step word problems
• Applications and Problem Solving: variables
• Applications and Problem Solving: units of measurement
• Decimals and Percents: convert fractions, decimals, percents
• Decimals and Percents: divide by decimals and fractions
• Decimals and Percents: percent problems
• Decimals and Percents: square root of decimal numbers
• Decimals and Percents: percent problems (\( p\% \text{ of } ? = r \))
• Whole Numbers and Fractions: operations
• Whole Numbers and Fractions: basic arithmetic operations
• Whole Numbers and Fractions: estimate products and squares
• Whole Numbers and Fractions: equivalent forms

**Course Policies**

- Attendance at lab sessions is mandatory, and vital for your performance.
- You should access the A+dvancer website outside of the lab sessions. You can visit the site from the Bankier Library, Math Lab or even at home.
- You will receive progress reports on your studies, including attendance, work outside the lab sessions, and any comments by the A+dvancer Lab Assistant.
- Turn off cellphones and other equipment before entering the lab as a courtesy to other students. If you expect an emergency call, set your phone to vibrate and notify the Lab Assistant that you are expecting an important call.
- The assigned work usually requires all of the five weeks to complete, so visiting other websites such as Facebook or instant messaging clients will prevent you from finishing this course and is therefore prohibited.
- All other college policies remain in effect. Refer to your student handbook or the Brookdale website for other Brookdale policies regarding behavior, honesty and other behavior.