**College Freshman – What Can I Expect in My College Level Math Class?**

Sometimes students have difficulty adjusting to different types and/or levels of math classes because the classes vary greatly in the division of responsibility between the teacher and the student. The following table identifies potential differences in expectations that incoming students may encounter.

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<th>Characteristic</th>
<th>Range of Expectations</th>
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| **Accountability for prerequisite mathematical skills and understanding** | • Teachers review prerequisite material until students have the background to learn new material.  
  • Teachers tend to take responsibility for filling in all the students' holes and show all steps students need, even if the material was already taught.  
  • Teachers expect students to get help outside of class when they lack prerequisite concepts.  
  • Most material in a math class will be new concepts that depend on the students' ability to recall and use prerequisite material fluently.  
  • Teachers may skip steps if those steps have been covered in an earlier class or earlier in the quarter.                                                                                                                                                                                                                                                                                     |
| **Self-discipline, locus of control**   | • Students expect to receive credit for all work done, including each homework assignment.  
  • Teachers rarely have time to grade homework for accuracy or to give meaningful feedback; students often receive credit just for turning in an assignment, even if the work is done incorrectly.  
  • Grades are assigned to homework as a way to motivate students to complete the assignments.  
  • Attendance is required and may be a portion of course grade.  
  • Doing homework is a necessary part of learning the concepts and is the student's responsibility.  
  • Students are expected to be able to assess their level of understanding and do extra problems, or seek help, when necessary.  
  • Students are expected to schedule at least two hours a day to work on their math, but good students know to set aside as much time as it takes to fully understand.  
  • Attendance is not required, but students are responsible for finding out what material was covered during the class session.                                                                                                                                                                                                                                                              |
| **Metacognition**                      | • Formative/on-going assessment and remediation is the teacher's responsibility.  
  • The teacher will see if the students understand the material adequately and give the students more problems and/or time if the students do not understand the material.  
  • The teacher takes the lead in preparing the students for tests by giving reviews and practice tests; frequently students may retake or correct tests for a higher grade if they do poorly.  
  • Teacher spends class time "going over" a test after it is graded.  
  • Formative/on-going assessment is an important part of the teacher's decision-making during the class; however, students have the primary responsibility for knowing when they understand and when they need to remediate.  
  • It is the student's job to review. They should seek help in the tutoring lab or office hours, when necessary, to make sure they completely understand.  
  • Teacher distributes an answer key and/or goes over only select problems from a test. Each student is expected to review items missed on the test and meet with the teacher, as needed, to clarify misconceptions/ misunderstandings.                                                                                                                                                                                                 |
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<th><strong>Depth of understanding</strong></th>
<th>• No question should be on a test unless a similar problem was covered in class.</th>
<th>• Many students in developmental courses in college resist learning for understanding and believe it is sufficient to memorize procedures. • A test is not limited to an assessment of whether or not a student can repeat memorized steps; it also assesses whether students understand concepts and can think mathematically and assess whether students can apply the concepts in new ways.</th>
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<td><strong>Study Skills</strong></td>
<td>• Students rarely need to read the text; teachers cover all the material in the text that is needed. • Doing the homework (or getting enough done to hand in regardless of correctness) is sufficient to pass the class. • If a student doesn’t get a problem right away, the teacher will explain how to do it.</td>
<td>• Students are expected to read the text. The teacher may not cover all the material in the text that the student is accountable to learn. • Doing homework correctly is an important part of learning; if help was received, students should go back and rework the problem again by themselves. • Students will struggle, sometimes for days, to solve some problems.</td>
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<td><strong>Technology</strong></td>
<td>• Students are encouraged to use calculators and often use them to answer questions that could be done mentally (e.g., dividing 304 by 10 to see if 304 is evenly divisible by 10).</td>
<td>• Calculators may be encouraged for some investigations and topics. • Use of calculators may be prohibited in some classes, and/or on some problems depending on the purpose of the task (e.g., to assess some aspects of graphing; to assess procedural knowledge; to assess use of theorems/relationships to solve problems without direct calculation; to support the use of mental math)</td>
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<td><strong>Curriculum</strong></td>
<td>• Current curriculum in many high schools is integrated math. Three years of integrated math covers geometry, probability &amp; statistics, and two years of algebra. Precalculus is taken after third-year integrated math.</td>
<td>• It is assumed that students have taken and remembered at least two years of high school algebra. If not, students are placed into developmental courses.</td>
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<td><strong>In-class Responsibilities</strong></td>
<td>• Note-taking may be limited.</td>
<td>• Students are responsible for taking notes during class time (examples, discussion points, etc.); it may be necessary to fill in specific details outside of class. It is important to actively engage in making sense of the content throughout the lesson.</td>
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