MATH PLACEMENT & PREREQUISITE GUIDE

What you should know!
As part of the University of Wyoming’s – University Studies program (USP), all undergraduate students seeking a degree from the University of Wyoming are required to have a minimum of two math courses. These courses are referred to as Quantitative Reasoning A and B or (QA & QB).

**What math course should I take?**

In addition to the USP requirement, your chosen degree may have specific math requirements that you will need to meet in order to graduate. When this happens choosing the right math course that will satisfy both your USP and QA/QB requirements is ideal. Once the appropriate course has been determined the final questions revolve around how to enroll in the course. This is the million dollar question for many incoming and transferring students and where prerequisites come into play.

**What are prerequisites?**

Prerequisite is a fancy way of saying “you have to take this before you can take that.” Prerequisites are similar to rungs on a ladder, you stand on the lower rung, prerequisite, and pull yourself up to the higher one. You are building a foundation of math skills to support a higher level course above.

If you do not have additional math requirements for your degree, above the USP requirements, then you fall into the non-technical track and your prerequisites level for math will be lower than the ones of a student following the technical track. Please see Pg. 7 for a reference chart of math courses and their respective prerequisite requirements.

If you are undeclared; or are considering adding a minor to your non-technical degree that is in the technical track (For example: Major in Criminal Justice with a minor in Business); or you are anticipating returning to school for a more advanced degree at some point in the future, then you should choose the technical track for your math course selections. The non-technical track QA & QB courses DO NOT meet the technical track prerequisite requirements.
SO WHERE AM I ON THE PREREQUISITE LADDER?

For most incoming students your ACT or SAT math segment score, if taken within 3 years of registering for a course at UW, is accepted as a baseline prerequisite. To determine where your score places you, please see the table on page 7. If you took either of these exams multiple times, or in any combination the highest score received will be accepted within the expiration date.

Some students have other prerequisites that can be considered when placing into a math course at UW. Ask yourself the following questions:

- Did I take a college level math course, for college credit (i.e. dual or concurrent enrollment courses) and received a grade of “C” or better AND this course is accepted as transfer credit here at UW?
- Did I take an AP math course in high school? If so, you must have taken the AP examination and receive a score of 3 or better.
- Did I take the International Baccalaureate (IB) curriculum? If so, you must also have taken the final examination and passed with a score of 4 or better on the math portion of the examination.
- Did I take a college level math course at another college or university before I transferred to UW; AND I received a grade of C or better?
- Did I take a College Level Exam Program (CLEP) test or Credit by Exam (CBE) and receive a passing grade?

When any of the above options applies to you, you are not required to take a math placement exam and you may safely disregard the WyoWeb MPE checklist item. However, since taking the exam can’t hurt you, you may choose to take a placement exam in an effort to increase your prerequisite placement score above any other qualifying prerequisite, up to Calculus I. (See Testing Out, Pg. 4, for more information.)

If you are unsure if any of these apply to you, please email the math department a brief summary of your situation to gauss@uwyo.edu. Please include your name, W# and an unofficial copy of all your transcripts, if your transcripts have not been loaded to your WyoWeb student profile. We will verify the information and, if appropriate, issue a registration override until the official documentation can be processed by the Registrar's office and Admissions.
If the official transcripts are processed and it is determined that the course or test in question will not meet university requirements, you will be administratively dropped from the course.

**It is the student’s responsibility to follow up with the Admissions and/or Registrar’s office to ensure all transfer credits are posted to the student account correctly.**

For students who took the AP exam and are awaiting the test results, an override may be given, similar to above, pending your results. If you took the AP-AB exam you will be allowed to register for Calculus II or III, if you took the AP-BC exam you will be allowed to register for Calculus II or III, pending the official score results. You must receive a score of 3 or higher on the AP exam in order to receive college credit for the course.

If you are unsuccessful in attaining a score of 3 or higher on the AP exam you will need to either take a Math Placement Exam (MPE) to determine your math skill level or accept the prerequisite placement provided by your ACT or SAT score as described above or other qualifying prerequisite you may have.

You will not be allowed to retake Calculus I or II based solely on the participation in an AP calculus course.

For information regarding CLEP, CBE and other examinations scores accepted by UW please go to [www.uwyo.edu/registrar/students/credit.html](http://www.uwyo.edu/registrar/students/credit.html) or contact the Registrar’s office at 307-766-5272.

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**Math Placement Exam encouraged, not mandatory…**

If your ACT math segment score is below 21, your SAT math segment score is below 600 AND you do not have one of the above additional prerequisites you will be **ENCOURAGED** to take a math placement exam to try and improve your placement. If you choose NOT to take an MPE you will be required to start your math courses at the lowest rung on the mathematics prerequisite ladder, Math 900. 900 level courses do not count for college credit and may not count toward load requirements for some scholarships. Please check with the Student Financial Aid office regarding your specific requirements. There is nothing wrong with needing to take 900 level courses if this is your actual skill level; however, it is something altogether different if you are taking them simply to avoid taking a Math Placement Exam. A $15 dollar exam could save you hundreds/thousands of dollars in tuition for courses that won’t be applied toward your degree.
The Math Placement Exam (MPE) is the least expensive way to test out of a course, and it lets you get right to the courses you need to take for your degree or requirement. You do not receive college credit for the math courses you test out of, but it does allow you to skip over courses in the prerequisite ladder in which you are able to demonstrate proficiency. The MPE may also meet certain USP requirements because you are able to demonstrate proficiency. The MPE consists of one of 3 different brand name exams: UW Online, AccuPlacer and Compass. MPE’s have the ability to place you into a higher level course, above where your current SAT, ACT or actual transfer credit courses, can provide on their own. The MPE tests 5 different levels of math proficiency, Arithmetic, Beginning Algebra, Intermediate Algebra, College Algebra and College Trigonometry. Based on your assessment score you will be given prerequisites accordingly.

Math Placement Exams are good for 1 year from the date of the exam. There is currently no limit to the number of times you may take an MPE, however, you may only take the UW-Online exam once. Thereafter you must select one of the other two accepted exam options. Taking or re-taking an MPE to improve your placement can’t hurt you. If your MPE score is lower than any other prerequisite placement on record we will honor your highest placement score. The following are some reasons you may want to take an MPE or re-take an MPE:

- Your ACT or SAT scores have expired (older than 3 years);
- You are not happy with your current ACT or SAT placement score;
- You have knowledge or math skills from work, non-credit courses, etc., and you would like to demonstrate you have the necessary skills to meet the prerequisite or “test out” of a course;
- Your MPE has expired. (MPE scores are only good for 1 year from the test date)

Prepare to succeed...

The key to success is to study and prepare. The most common mistake students make is assuming that they know this material and it will be a snap. “Who needs to study, I took this stuff in high school & aced it”. In many instances you couldn’t be farther from the truth! Math skills are extremely perishable. It is amazing how quickly you forget things if you aren’t using them on a regular basis. There is a lot riding on getting a good placement score, least of which is $$. If you have to take a course you could have tested out of with a bit of effort it is like throwing $600.00 + away. Study materials and sample tests can be found on our website: www.uwyo.edu/math/mathplacement. Students needing additional material have found www.khanacademy.org to be a useful resource as well as videos found on YouTube. These are free online learning opportunities that can help you refresh existing skills and learn new ones.
The university accepts several different placement exam results to evaluate your math skill level. Following are the different placement exams that the university accepts and some information about each. Each tests the same skill sets and none is better than the other from the university’s perspective so it does not matter which exam you take or in what combination they are taken in; the best score received is the one that will be applied to your student record.

**UW Online Exam**

The online exam can be taken from any PC with internet access; it is not compatible with MAC computers. The online exam may be accessed through your WyoWeb either via “Students/student records/math placement exam” or by clicking the item on your WyoWeb Student Check list. The fee for this exam is $15 and is paid through CA$Hnet when you click the link to access the exam. The results of your exam along with course options based on that score will be sent to your UW student email address, usually within 2 business days. You will have 2 hours to complete the exam, but many finish much earlier. You may not save and return to the exam, so be prepared to finish once you begin. Results are valid for 1 year from the exam date. If you wish improve your placement score you will need to select from one of the proctored exams below. The online exam may only be taken once. If you wish to re-take you must choose from below.

**Compass Exam or AccuPlacer Exam**

These are two different exams and are part of a large national testing database. These are referred to as proctored exams where you make an appointment to go to their testing location to take the exam. Either of these two exams may be taken multiple times or in combination. Most community colleges, universities and testing centers will offer one of these two exams. These testing scores expire 1 year from the test date. Most Wyoming high schools offer the Compass exam to their students at the school so check with your counseling office or advisor. Simply make an appointment directly with the testing facility, and pay their testing fee. Send the results to UW Math Department either by email/scan to Gauss@uwyo.edu or fax to 307-766-6838.

The UW - Mathematics department is an approved AccuPlacer testing facility. We offer testing by appointment Monday – Friday, 8:30 am – 3:30 pm, in Ross Hall, on campus. To schedule an appointment call 307-766-4221.

- $15 testing fee (cash or check only)
- A photo I.D. is required.

To schedule an appointment call 307-766-4221. Or email: LRoan@uwyo.edu
PREREQUISITES, REGISTRATION ERRORS AND CLOSED REGISTRATION

- A course MUST be passed with a C or better in order to count as a prerequisite, including courses that are transfer credits from other colleges or institutions.
- 0900-level courses do not count for university credit and may not count toward some full time student requirements such Hathaway Scholarship or GPA calculations.
- A score of 4 or greater on the MPE will waive the QA requirement.
- Students not meeting the appropriate prerequisite for a registered course will be administratively dropped from the course.

Mathematics closes registration for ALL lower division math courses approximately 2 weeks before classes start in order to verify prerequisites. Any student that is registered for a course and does meet the prerequisite requirements will be notified via their student email, that they are at risk of administrative drop. **DO NOT IGNORE THIS WARNING; if you do not act to resolve the error you will be dropped!**

**Transfer Equivalency Self-Service** – Students transferring college credits to UW from other colleges or universities may use this self-serve web site to determine transferability. [https://wyotransfer.uwyo.edu](https://wyotransfer.uwyo.edu).

Once prerequisite checks are complete math registration will remain under closed enrollment. This allows each new registration to be verified for prerequisites before being registered into the course. In order to register for or change sections in a math course you must complete the Registration Request Form found on our webpage [http://www.uwyo.edu/math/registration/](http://www.uwyo.edu/math/registration/). This electronic form is time stamped and is processed in the order received. The student will be notified via email of the status of their request.

Students should plan to attend the desired course, if possible, until they are notified of the dispensation of their registration request so that they do not miss too much information. Most requests are processed within 3 business days, however, some may take longer if holds exist or prerequisites are not on record. Remember to watch your email and schedule carefully.
**PREREQUISITE REFERENCE CHART:**

<table>
<thead>
<tr>
<th>Math Course And QA &amp; QB Attribute</th>
<th>The best score of any that apply to you</th>
<th>MPE Score</th>
<th>ACT Math Score</th>
<th>SAT Math Score</th>
<th>GRE Math Score</th>
<th>Prerequisite Course</th>
<th>AP Calculus Score Needed</th>
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<tbody>
<tr>
<td><strong>Non-Credit</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900 NA</td>
<td>Arithmetic</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>0921 NA</td>
<td>Beginning Algebra</td>
<td>1</td>
<td>21</td>
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<td>≥151</td>
<td>0900</td>
<td></td>
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<tr>
<td>0925 NA</td>
<td>Intermediate Algebra</td>
<td>2</td>
<td>21</td>
<td>≥600</td>
<td>≥151</td>
<td>0921</td>
<td>n/a</td>
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<td><strong>Non-Technical Track</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000 QA</td>
<td>Problem Solving</td>
<td>2</td>
<td>21</td>
<td>≥600</td>
<td>≥151</td>
<td>0921</td>
<td>n/a</td>
</tr>
<tr>
<td>1050 QB</td>
<td>Finite Math</td>
<td>4</td>
<td>26</td>
<td>≥600</td>
<td>≥151</td>
<td>1000 or 1400</td>
<td>n/a</td>
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<tr>
<td><strong>Elementary Education</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1100 QA</td>
<td>Math for Elem Teachers I</td>
<td>2</td>
<td>21</td>
<td>≥600</td>
<td>≥151</td>
<td>0921</td>
<td>n/a</td>
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<tr>
<td>1105 QB</td>
<td>Math for Elem Teachers II</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>1100,2800,3000 or 3200</td>
<td>n/a</td>
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<tr>
<td>2120</td>
<td>Math for Elem Teachers III</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>1105</td>
<td>n/a</td>
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<tr>
<td><strong>Pre-Calculus</strong></td>
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<tr>
<td>1400 QA</td>
<td>College Algebra</td>
<td>3</td>
<td>23</td>
<td>≥600</td>
<td>≥151</td>
<td>0925</td>
<td>n/a</td>
</tr>
<tr>
<td>1405 QA</td>
<td>Trigonometry</td>
<td>4</td>
<td>25</td>
<td>≥600</td>
<td>≥151</td>
<td>1400</td>
<td>n/a</td>
</tr>
<tr>
<td>1450 QA</td>
<td>Algebra &amp; Trigonometry</td>
<td>3</td>
<td>23</td>
<td>≥600</td>
<td>≥151</td>
<td>0925</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Calculus</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2200 QB</td>
<td>Calculus I</td>
<td>5</td>
<td>27</td>
<td>≥600</td>
<td>≥151</td>
<td>1405 or 1450</td>
<td>n/a</td>
</tr>
<tr>
<td>2205</td>
<td>Calculus II</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>2200</td>
<td>AB score ≥ 3</td>
</tr>
<tr>
<td>2210</td>
<td>Calculus III</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>2205</td>
<td>BC score ≥ 3</td>
</tr>
<tr>
<td><strong>Business Calculus</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2350 QB</td>
<td>Business Calculus</td>
<td>4</td>
<td>26</td>
<td>≥600</td>
<td>≥151</td>
<td>1400</td>
<td>n/a</td>
</tr>
<tr>
<td>2355</td>
<td>Math Applications for Business</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>2200 or 2350</td>
<td>AB score ≥ 3</td>
</tr>
</tbody>
</table>

**CLEP**- If you took either a CLEP Calculus I; OR College Algebra Exam and received a score of 50 or higher you will receive credit for this course.

**IB**- If you studied under the IB program and you took the IB exam please contact the math department at Gauss@UWYO.edu to obtain an evaluation of the exam and the UW transfer equivalent.
As stated previously, many of the degrees offered at the University of Wyoming have specific mathematics requirements. The UW course catalog is a complete listing of all courses offered by the University along with their individual description, attributes, and prerequisite requirements. You can find an electronic copy of the catalog on the Registrar’s web page or follow the link below: http://www.uwyo.edu/registrar/university_catalog/math.html.

Here are some of the common sequences used by Technical, Elementary Education and Non-Technical degree tracks. Please contact your advisor or the math department if you have questions regarding the appropriate sequence for you.

<table>
<thead>
<tr>
<th>QA Courses</th>
<th>QB Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1000 - Problem Solving</td>
<td>MATH 1105 - Data, Probability and</td>
</tr>
<tr>
<td></td>
<td>Algebra for Teachers</td>
</tr>
<tr>
<td>MATH 1050 - Finite Math</td>
<td>MATH 2200 - Calculus I</td>
</tr>
<tr>
<td>MATH 1100 - Number &amp; Operations for Teachers</td>
<td>MATH 2350 - Business Calculus</td>
</tr>
<tr>
<td>MATH 1400 - College Algebra</td>
<td>STAT 2000 - Statistics and the World</td>
</tr>
<tr>
<td>MATH 1450 - Algebra/Trigonometry</td>
<td>STAT 2050 - Fundamentals of Statistics</td>
</tr>
<tr>
<td>MATH 1405 - Trigonometry</td>
<td>STAT 2070 - Intro Statistics for the Social Sciences</td>
</tr>
<tr>
<td>MPE Score of 4 or 5 will waive your QA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sequence Possibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1000 (QA) → MATH 1050 (QB)</td>
</tr>
<tr>
<td>MATH 1400(QA) → MATH 1050(QB)</td>
</tr>
<tr>
<td>MATH 1000(QA) → STAT 2000(QB)</td>
</tr>
<tr>
<td>MATH 1400(QA) → STAT 2000(QB)</td>
</tr>
<tr>
<td>MATH 1000(QA) → STAT 2050(QB)</td>
</tr>
<tr>
<td>MATH 1400(QA) → STAT 2050(QB)</td>
</tr>
<tr>
<td>MATH 1000(QA) → STAT 2070(QB)</td>
</tr>
<tr>
<td>MATH 1400(QA) → STAT 2070(QB)</td>
</tr>
</tbody>
</table>
**PLEASE NOTE:**

Don’t procrastinate on taking math courses. Math skills are perishable and if you are not using them regularly, they will fade. It will become harder the longer you wait. Studies have shown that students that do not take a math course in their first year have a 68% chance of never completing their college degree.

Many other departments utilize the math placement testing program as prerequisite to their own program requirements. For example:

- You may not declare a nursing major until you have successfully met the registration requirements for Math-1400 OR received a 3 on a placement exam.
- Chemistry and Business requires a specific math course as a prerequisite before you can begin taking their courses.

Math 1000 is a course specifically designed to satisfy the QA requirement for non-technical majors such as communications/mass media, fine arts, humanities, history or language; and IS NOT a prerequisite for college algebra (1400) or other pre-calculus courses. If you are considering changing your major or adding a technical major or minor you should not take MATH 1000 as it will not meet the prerequisite requirements of the higher level courses required by a technical degree.

Elementary Education Majors - You are required to have both Math 1100(QA) and Math 1105(QB), however, these may be substituted within the degree requirements as follows:

- Math 2800, 3000, or 3200 or it’s equivalents, with a grade of “C” or better for Math 1100
- Math 2200, 2350 or it’s equivalents, with a grade of “C” or better, for Math 1105
- Math 1400, 1450 AND a Statistics course, or it’s equivalents, with a grade of “C” or better for Math 1105.

It is important that you carefully consider your math courses and when you plan to take them. Consult your advisor prior to registering for a course to ensure it will meet your QA, QB and degree requirements for graduation.
Does everyone have to take a University Studies QA Class?

UW students must either take a QA course or test out of a QA course. A student can test out by doing one of the following:

- Receive a Level 4 or above on the Math Placement Exam; **OR**
- An ACT math section score of 26 or above; **OR**
- A SAT quantitative score of 600 or above; **OR**
- A “C” or better in a calculus course (i.e. MATH 2200 or 2350); **OR**
- Advanced Placement credit in calculus.
- MATH 2205 or 2210 will satisfy the QA and/or QB requirement but will require a USP Petition. (See your advisor regarding this)

If my ACT score was 27, does that mean I will be a success in Calculus I?

Chances for success in Calculus I are good with an ACT of 27, however, success in Calculus II and III requires a good trigonometry background. Since ACT scores are more reflective of algebra and geometry knowledge, and ACT score of 27 or greater is not always a good indication of the student’s trigonometry ability. If a student is uncertain about his/her trigonometry skills, it would be wise to take the MPE.

What if I took the MPE and got a lower placement score than ACT math score got me?

The math department will always accept the highest current placement assessment score received. Thus, a student with an ACT of 23 but an MPE score of level 1 would be qualified to take college algebra, (see Pg. 7), however, when significant discrepancies exist between test scores caution should be exercised. Discuss these discrepancies with someone in the math department to ensure proper course placement. We want to see you succeed, not just get into a higher level course where you will struggle unnecessarily.
What is the difference between taking MATH 1400 Algebra and then taking MATH 1405 Trigonometry versus taking MATH 1450 Algebra & Trigonometry?

MATH 1450 is a one semester, 5-hour course. Because it is two courses taught consecutively in a single semester it is much faster paced than either the 1400 or 1405 courses individually. The 1450 course gives greater emphasis on algebraic manipulation, so students should have strong algebra skills.

- It is geared toward the student that will be going directly into Calculus I after completion; or
- Is ideal for students needing a refresher of the material prior to taking a subsequent course such as Calculus I.

What if I took dual enrollment classes or “for college credit” courses while still in high school, do those count or do I still need to take the placement exam?

Providing the course is accepted for transfer credit to UW and you passed the course with a grade of “C” or better, you will be allowed to use these courses to meet the prerequisite requirements of further courses as appropriate.

- You will need to contact the college where these courses were taken to request an official transcript be sent to UW. These do not automatically come with your high school transcripts in most cases.
- The key words to tell people during orientation are “I have college credits being transferred to UW that meet the QA/QB requirements and do not need to take the placement exam”.
- A registration override may be given for a course based on an unofficial copy of a transcript that is pending processing. You will be administratively dropped from the course if the official transcript is not received by the drop date.
- Please send a copy of your unofficial transcript along with Name and UW student W# to Gauss@uwyo.edu Subject: Override Request.

If I scored a 23 or higher on my ACT, do I have to take the MPE?

You are not required to take the MPE but you may want to, here’s why:

The placement exam can advance you up to Calculus I, based on your score. If you take the MPE and score a 4 you would be allowed to register for Trigonometry and it would automatically satisfy the QA requirement from your University Studies Program (USP). A score of 5 would allow you to register for Calculus I.

I took algebra, trigonometry or calculus in high school. Why do I have to take them again?

Most likely the course you took in high school lacked the depth necessary to meet college level instruction requirements, unless you took it as part of a college program as explained earlier. The best way to determine if it covered the necessary principals required for college level course is to test out of it by the placement exam. (See “Testing Out” on Pg. 4)
**When should I take the exam?**

Once you have access to your student UW WyoWeb account, it’s never too soon. You may follow the link on either your student check list or by clicking Students/Student Records/Math Placement Exam. If you choose to take one of the other proctored exam options, once you have your student ID number you may schedule an appointment with the math department office or testing facility of choice.

**I am a transfer student, do I have to take the placement exam?**

If you are transferring math credits from another college or university you probably will not need to take the placement exam. However, you may want to for reasons described on page 3. You will need to be sure these things are done:

- Official transcript is sent to UW
- Your transfer evaluation is done and your credits are reflected accurately on your UW transcript. (Please see admissions and the Registrar’s office for assistance)

**I am transferring to another college or university, can you send them my placement score?**

The online math placement exam score cannot be transferred. We receive only the calculated score for the exam, not the assessment breakdown and therefore it is of no use to any other institution.

**Do you do testing at orientation?**

Orientation is a very busy event and the schedule usually doesn’t allow for enough time to take the exam comfortably, however, we can schedule an appointment if you find your schedule permits.

**I thought you did this testing in a big group during orientation, did I miss something?**

No, you didn’t miss anything. With the addition of the online option for testing, it was no longer necessary to stress students by having them take an exam while here at orientation. We think that the outcomes are better when students can focus on this important exam and do not have to be concerned with all the other scheduled events of their visit.

**Where do I go if I still have questions?**

Leslie Roan  
Office Associate, Undergraduate Coordinator  
Ross Hall, Rm. 202  
LRoan@uwyo.edu