

The background features abstract, overlapping geometric shapes in various shades of blue, ranging from light sky blue to deep navy blue. The shapes are primarily triangles and polygons, creating a dynamic, layered effect. The central area is white, providing a clean space for the text.

Multiple Measures Placement for Math

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What is Multiple Measures Math Placement?

- ▶ Placing students based on identified factors in addition to Accuplacer placement scores.
 - ▶ MPL scores will include Accuplacer test scores alone, or Accuplacer test scores along with the factors listed below.
- ▶ Based on national data and TCTC data, Tri-County is placing students using the following criteria:
 - ▶ High school graduation within the last three years from the admitting semester
 - ▶ Student entering TCTC in Fall 2021 must have graduated between 2018 - 2021.
 - ▶ High school GPA
 - ▶ Highest level of math taken in high school

The History

- ▶ Tri-County began using Multiple Measures Math Placement with Bridge students in Fall 2018.
- ▶ The process was very manual with the Multiple Measures team reviewing each Bridge student's data to determine qualification in addition to discussing multiple measures placement course options and student's desire and confidence levels in math.
- ▶ The results showed that students were as successful, or more successful in their math courses when placed based on multiple measures.
- ▶ *Note: Non-Bridge students could, and some did, opt in to Multiple Measures Placement. Information was added to the TCTC webpage and MMP info sessions were held for faculty/staff to assist in supporting non-Bridge students.*

Why is it important for us to use Multiple Measures placement?

- ▶ We know that placement testing alone is not an accurate predictor of course success.
- ▶ Courses cost students time and money. If we can positively impact the cost and the time for a student, we have a responsibility to do so.
- ▶ The courses a student takes and the timeframe in which they take them, has implications for transfer, clinical programs, graduation, and LIFE scholarship.
- ▶ Multiple measures gives a more holistic view of academic performance by viewing moment in time testing, high school math courses (levels and grades) and overall performance with HS GPA.

How does multiple measures impact retesting?

- ▶ The multiple measures placement level may not qualify the student to take the math course they need, so retesting may still be recommended for some students. For example, if a student's multiple measures range includes (MPL 20 and MPL 30) MAT 101, MAT 102, and MAT 103/120, and they need MAT 110 (MPL 35), they may want to retest to see if they can test into MAT 110 rather than starting at MAT 102.
- ▶ For some students, retesting would be a waste of time and potentially money if multiple measures qualifies them to take the math they need. For example, if a student needs MAT 120 (MPL30) and their multiple measures range includes (MPL 25 and MPL 35) MAT 102, 103/120, and 110, then they would not need to retest.
- ▶ Recommendations regarding retesting should be based on your conversation with the student.

How does Multiple Measures Math Placement impact advising?

- ▶ There will be a placement level range that includes multiple classes rather than one level and one class.

PLACEMENT LEVELS AND TEST SCORES

Placement	Source Code	Placement Level	Test Date	Qualifies for Retest
English Placement Level - EPL	Remote - Placement Test	025	06/29/2020	Y
Math Placement Level - MPL	Remote - Placement Test	030	06/29/2020	Y
Math Placement Level - MPL	Multiple Measures Placement	040	07/06/2020	Y
Reading Placement Level - RPL	Remote - Placement Test	030	06/29/2020	Y

- ▶ Students will have more choice in choosing math options which will require more assistance in weighing those options and aligning them with educational goals
- ▶ Students may be able to graduate/transfer/enter program courses sooner.
- ▶ Students may be able to meet LIFE scholarship requirements.
- ▶ Less classes taken = less money paid for students who opt to forego lower level courses for higher level courses.

What is required of the advisor?

- ▶ The multiple measures placement level will be generated automatically from Banner and included on the Supplemental Information page for eligible students. Eligibility will not need to be determined by the advisor.
- ▶ For students who have not submitted a final high school transcript, you will need to let them know that their placement is subject to change once we receive the final transcript. As always, they are eligible for courses within their highest score level and below. *Note: The student can also check for receipt of the final transcript on the Supplemental Information page.*
- ▶ The advisor is critical to the placement interpretation and facilitating a discussion with the student. That creates the foundation for multiple measures math placement.
 - ▶ key to TCTC being able to implement and continuously use Multiple Measures math placement accurately and efficiently.
- ▶ As with all advising, students have to be central to the process and be the ultimate decision makers. Our role as the advisor is to help them to understand the information that needs to be considered in the decision.

Helpful Questions in Advising Conversations

- ▶ How confident are you in your math ability?
- ▶ Do you feel confident that you can be successful in _____ math class?
- ▶ Did you take a math class in your senior year?
- ▶ Have you submitted your final high school transcript to the college?
- ▶ Verify the information on the Supplemental Information screen of the Student Advising Profile.
 - ▶ If the student has not submitted the final high school transcript, encourage them to do so and then reach out to an advisor, as their levels may change significantly based on additional high school coursework and grades.

HIGH SCHOOL INFORMATION				PRIOR COLLEGE INFORMATION				
High School	Diploma Type	Grad Date	GPA	Transcript Received	College	Degree	Transcript Received	Transcript Reviewed
Dixie High School	In Progress HS Transcript	05/01/2020	4.28		No Prior College Information			

Math Placement Process using Multiple Measures

- ▶ Confirm the TCTC major.
- ▶ Confirm the transfer major and institution, if applicable.
- ▶ Identify the math course required for the intended major (TCTC, Clemson, or other college catalog, Bridge advising guides.)
- ▶ Review existing math credit from AP, transfer, prior academic history, etc.
- ▶ Review placement levels and corresponding course options.
- ▶ Engage student in a conversation about their multiple measures math placement, math confidence, preferences, and course options.
- ▶ Based on the preceding information, determine appropriate math placement based on the highest level of math the student is eligible to take and the student's comfort level.
 - ▶ Note: The student is eligible to take any math at their placement level or lower, and should always take the least rigorous to meet requirements.

Examples

- ▶ Bradley is an Automotive Technology major and does not plan to transfer. His multiple measures range includes (MPL 10 and 20) MAT 032, MAT 170, and MAT 101/MAT 150. He needs MAT 170 for his TCTC major. Do you need to discuss retesting? Is he eligible to take his required math?
- ▶ Lesley is an Associate in Arts major planning to transfer to Clemson and major in history. Her multiple measures range includes (MPL 30 and 40) MAT 103/120, MAT 109/110, and MAT 111/130. Her transfer major requires MAT 103/120, MAT 130, or MAT 140. Do you need to discuss retesting? Which math would you recommend based on current placement?
- ▶ Roger is a Nursing major and does not plan to transfer. His multiple measures range includes (MPL 5 and 15) MAT 031, MAT 032, and MAT 155/150/170. His TCTC major requires MAT 120. Do you need to discuss retesting? Which math would you recommend based on current placement?

Examples

- ▶ Adriana is a Business Administration major and does not plan to transfer. Her multiple measures placement range includes (MPL 15 and 25) MAT 155/MAT170/MAT150, MAT 101, and MAT 102. Her TCTC major requires MAT 120. Do you need to discuss retesting? Which math would you recommend based on current placement?
- ▶ Lawson is an Associate in Science major and plans to transfer to Clemson for Biological Sciences. His multiple measures range includes (MPL 20 and 30) MAT 101/150, MAT 102, and MAT 103/120. His transfer major requires MAT 140. Do you need to discuss retesting? Which math would you recommend based on current placement?

In Summary

- ▶ Multiple measures does not take the place of Accuplacer placement testing, but includes Accuplacer placement testing, along with HS GPA, HS math course(s) and earned grades.
- ▶ Students eligible for multiple measures will have two different scores (ex. MPL 10 and MPL 40) resulting in a placement range and multiple courses. Students decide where they want to land within the multiple measures placement range. Your role is to guide and support them in the decision.
- ▶ All math placement discussions should start with the major (2-year and 4-year, if applicable) and required math.
- ▶ Recommend the least rigorous course that aligns with the student's confidence level and required math for the intended major. *This has always been the math recommendation for all students.*
- ▶ MAT 103, MAT 120, MAT 109, and MAT 130 require a RDG score of 25 or higher. If a student needs one of these math classes and has below a 25 on RDG, they will not be able to take the math class.
- ▶ MAT 103/120 do not lead to MAT 109/110 or MAT 130/140.
 - ▶ Refer to the math flowcharts to view math progressions.
- ▶ **Use your resources! Guessing in advising can mean loss of time, money, and motivation.**

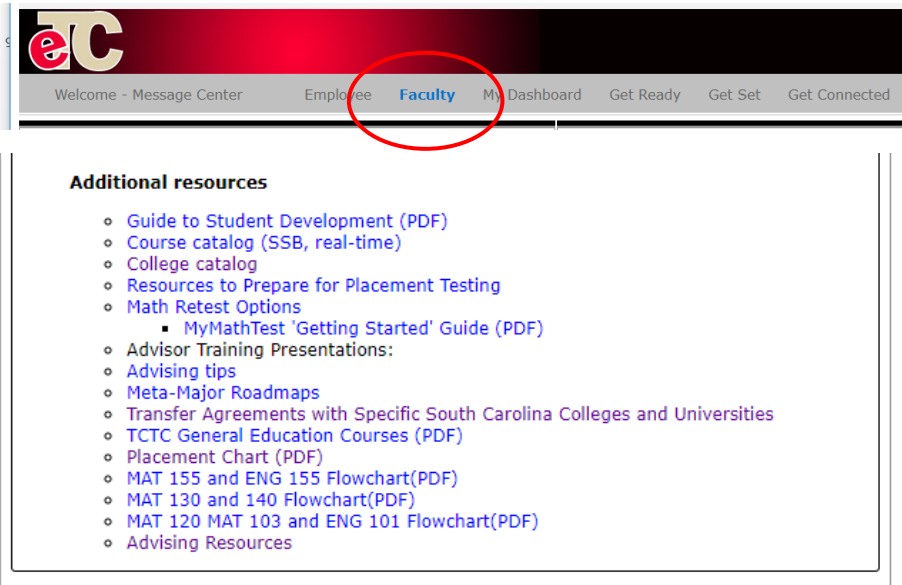
Use your Resources

Mathematics Advising Guidelines Worksheet

- ▶ When advising students who are transferring to Clemson, please remember the following:
 - ▶ For majors such as History and Psychology that require MATH 1010 or STAT 2300 at Clemson, students should take MAT 103 or MAT 120, respectively.
 - ▶ For majors such as Business that require MATH 1020 at Clemson, students should follow the MAT 102, MAT 109, and MAT 130 track (see MAT 130 flowchart).
 - ▶ Students interested in engineering, science, architecture, and mathematics majors that require MATH 1060 at Clemson should follow the MAT 102, MAT 110, MAT 111, and MAT 140 track (see MAT 140 flowchart). MAT 137/138 is the alternative to MAT 140 for students in these majors.
- ▶ In *all* cases, a student should begin at the level indicated by their Math Placement Level while following the correct track for their intended transfer major. *Do not suggest* a calculus class just because a student has placement scores for it if their major only requires MAT 103 or 120.
- ▶ Also, if the CU catalog for the student's intended major says MATH 1060 or MATH 1020 or MATH 1010, please recommend the easier one, even if they have the test scores for the higher level class. The less difficult of the three is MATH 1010 (our MAT 103) followed by MATH 1020 (our MAT 130) and then MATH 1060 (our MAT 140). There is no point in making them take the more difficult class if they don't need to.
- ▶ For majors requiring MAT 120 and 130, have the student start on the math path for MAT 130 first and take MAT 120 later as a stand-alone class. MAT 120 (or 103) is not a prerequisite for any other math class since it does not contain algebra or trigonometry.
- ▶ MAT 130 is not a prerequisite for MAT 140 since it does not contain trigonometry.
- ▶ We know math placement is difficult so we are happy to answer any faculty or student questions. Just contact Keri Catalfomo at kcatalfo@tctc.edu or Angela Ward at award6@tctc.edu.

Use your Resources

- ▶ Advising channel of the Faculty tab of eTC



The screenshot shows the eTC website interface. At the top left is the eTC logo. Below it is a navigation bar with the following items: Welcome - Message Center, Employee, Faculty (circled in red), My Dashboard, Get Ready, Get Set, and Get Connected. Below the navigation bar is a section titled 'Additional resources' containing a list of links:

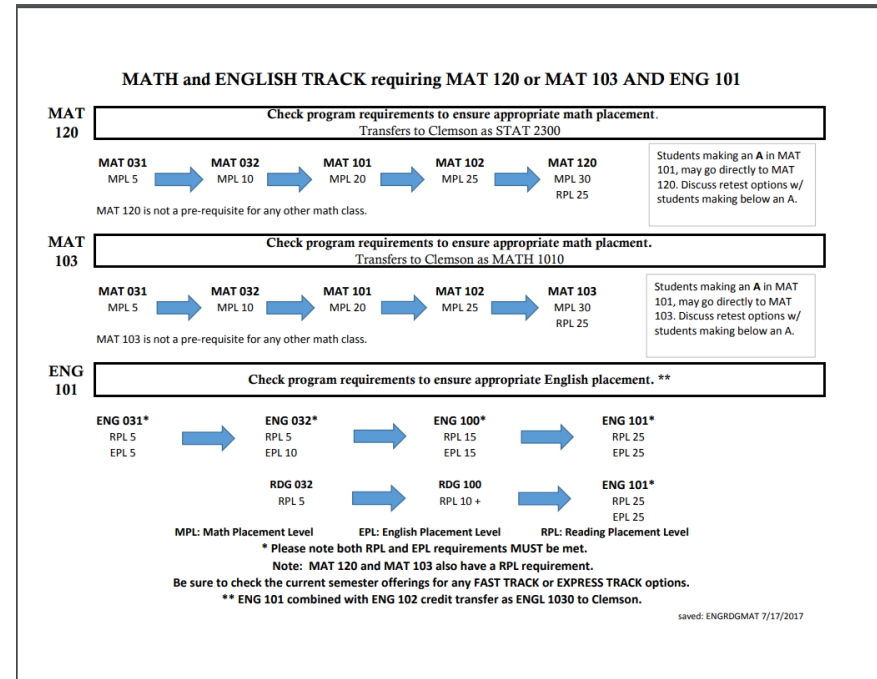
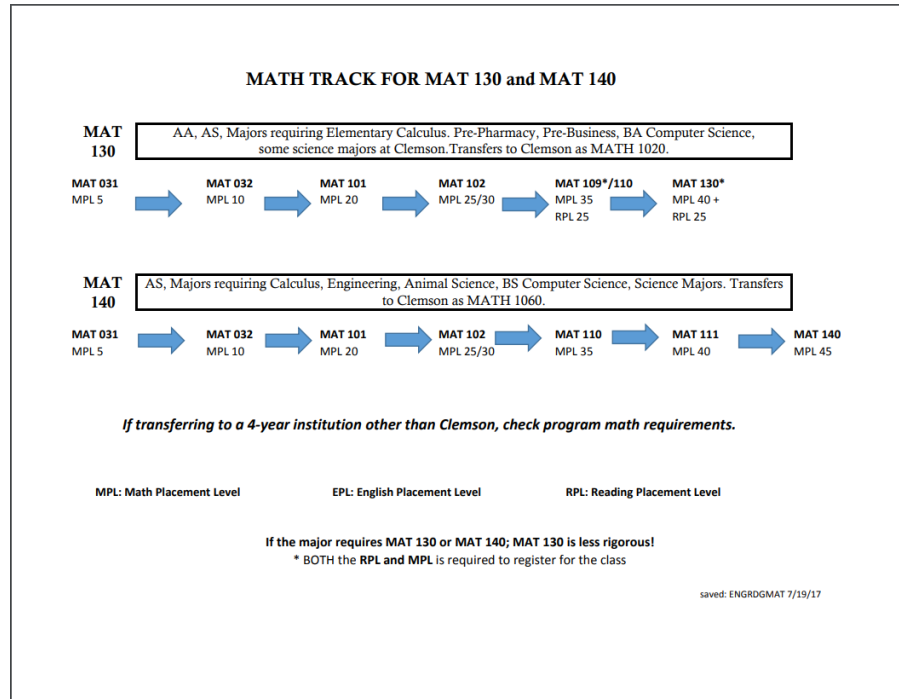
- Guide to Student Development (PDF)
- Course catalog (SSB, real-time)
- College catalog
- Resources to Prepare for Placement Testing
- Math Retest Options
 - MyMathTest 'Getting Started' Guide (PDF)
- Advisor Training Presentations:
- Advising tips
- Meta-Major Roadmaps
- Transfer Agreements with Specific South Carolina Colleges and Universities
- TCTC General Education Courses (PDF)
- Placement Chart (PDF)
- MAT 155 and ENG 155 Flowchart(PDF)
- MAT 130 and 140 Flowchart(PDF)
- MAT 120 MAT 103 and ENG 101 Flowchart(PDF)
- Advising Resources

- ▶ Advising OneDrive

<https://tctcedu.sharepoint.com/sites/Advising>

Use Your Resources

▶ Math Flowcharts



Use your Resources

► Supplemental Math Placement Chart

Supplemental Math Placement Chart

This chart is a supplemental resource for advising for math placement. It does not take the place of, or supersede the College Placement Chart or College Catalog.

The five pieces of information you must know before you can appropriately place a student are:

- Major
- Transfer plans, including transfer major, institution, etc.
- Required math for the major
- Placement level
- Prior credit (transfer, prior course history, advanced placement, etc.)

DEVELOPMENTAL AND TRANSITIONAL MAT COURSES	PLACEMENT LEVEL	TRANSFER CREDIT	MAJORS	LIFE ELIGIBLE	PREREQUISITE COURSE (if not placing into directly with placement level)
MAT 031	5 MPL	No	Any	No	None
MAT 032	10 MPL	No	Any	No	MAT 031
MAT 150	25 MPL or Lower	No	Any	No	None
MAT 101	20 MPL	No	Any	Yes	MAT 032
MAT 102	25 MPL	No	Any	Yes	MAT 101

CURRICULUM MAT COURSE	PLACEMENT LEVEL	TRANSFER CREDIT	MAJORS	LIFE ELIGIBLE	PREREQUISITE COURSE (if not placing into directly with placement level)
MAT 155	15 MPL	No	TCTC 2-year degrees – check catalog	Yes	MAT 032
MAT 170	15 MPL	No	EIT Only	Yes	MAT 032
MAT 103	30 MPL and 25 RPL	Yes	Any majors requiring MATH 1010 at CU, such as History or Psychology	Yes	MAT 102 or MAT 101 with an A
MAT 120	30 MPL and 25 RPL	Yes	Any majors requiring STAT 2300 at CU, such as History or Psychology	Yes	MAT 102 or MAT 101 with an A
MAT 211	30 MPL	Yes	Early and elementary education at CU	Yes	MAT 102
MAT 109	35 MPL	Yes	Any majors requiring MATH 1020 at CU, such as Business	Yes	MAT 102
MAT 130	40 MPL	Yes	Any majors requiring MATH 1020 at CU, such as Business	Yes	MAT 109 or MAT 110
MAT 110	35 MPL	Yes	Any majors requiring MATH 1060 at CU, such as engineering, science, architecture, or mathematics	Yes	MAT 102
MAT 111	40 MPL	Yes	Any majors requiring MATH 1060 at CU, such as engineering, science, architecture, or mathematics	Yes	MAT 110
MAT 137	42 MPL	Yes to CU – when paired with MAT 138 credit	Any majors requiring MATH 1060 at CU, such as engineering, science, architecture, or mathematics	Yes	MAT 111
MAT 140	45 MPL	Yes	Any majors requiring MATH 1060 at CU, such as engineering, science, architecture, or mathematics	Yes	MAT 111

Use Your Resources

Placement Preparation Resources for Testing/Retesting

Are you ready for the Accuplacer Test?

Practice Makes PREPARED!

The best way to be prepared for any test is to practice the material as much as you can ahead of time. There are some really effective ways to do that from the comfort of your computer. Pursue the options listed below to get started. Once you have practiced as much as you can, consider yourself prepared!

MATH

- » [https://accuplacer.collegeboard.org/
student/practice](https://accuplacer.collegeboard.org/student/practice)
- » MyMathTest
- » (purchase in Campus Store)
- » www.math.com
- » www.algebra.com
- » www.khanacademy.com
- » www.kickstarteducation.net

ENGLISH

- » [https://accuplacer.collegeboard.org/
student/practice](https://accuplacer.collegeboard.org/student/practice)
- » www.grammarbook.com
- » [www.uottawa.ca/academic/arts/
writcenl/hypergrammar/partsp.html](http://www.uottawa.ca/academic/arts/writcenl/hypergrammar/partsp.html)
- » [owl.english.purdue.edu/handouts/
grammar/index.html](http://owl.english.purdue.edu/handouts/grammar/index.html)
- » grammar.ccc.commnet.edu/grammar
- » www.khanacademy.com

READING

- » [https://accuplacer.collegeboard.org/
student/practice](https://accuplacer.collegeboard.org/student/practice)

**QUESTIONS? Contact the Assessment Center
at 864-646-1300 or placement@lctc.edu.**

Questions?

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