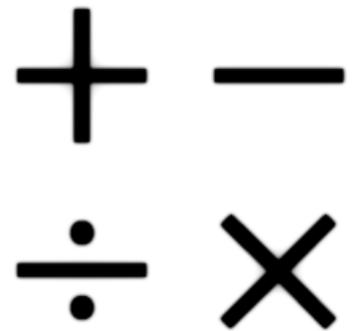
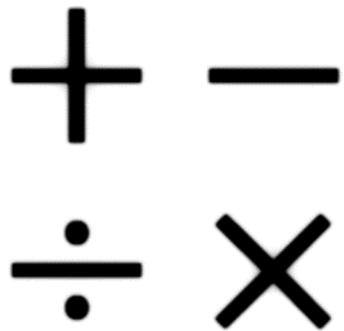


Why Students Should Take More Math

Christie Harrington-Tsai, DVC Counselor

&

Jenny Freidenreich, DVC Math Professor



Intros!

Christie Harrington-Tsai

- Counseling Faculty
- Has been at DVC for 2 years
- General & Mental Health counseling
- Previously worked as a high school counselor for 5 years in MDUSD and SRVUSD

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Jenny Freidenreich

- DVC Math Professor
- Has been at DVC for 16 years
- Teaches all levels of math, from Elementary Algebra to Calculus

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Why Is Math So Important?



- Math is the gateway to our most popular majors, such as Business, Nursing & Computer Science. It can open doors for students (but it also, unfortunately, can close doors for students when they are not able to get through math.)
- Completing Algebra II or higher is required to obtain any associate degree
- Completing at least one math beyond Algebra II is required to transfer in ANY major
- Courses in other departments have Math prerequisites (Economics, Computer Programming, Physical Science, Chemistry, Physics, etc.)
- CTE programs like Culinary, Construction, Electricians, Carpentry, etc. have some math requirements as well
- A nationwide study of community college students found that **just 30% of students who start in developmental math persist and complete their sequence to get to transfer-level math.**

DVC Math Flowchart

Pre-Algebra (non-transferable)

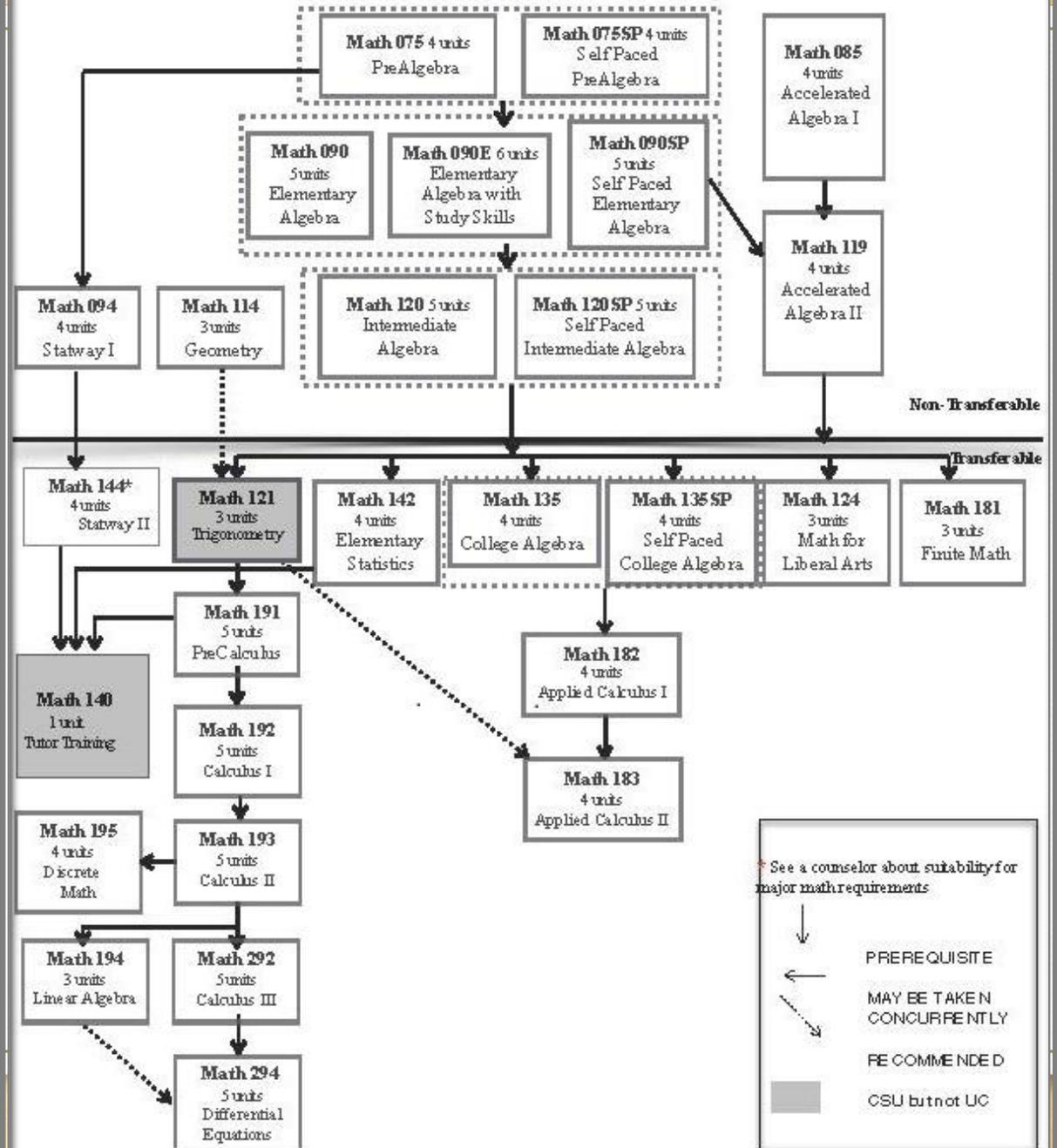
Elementary Algebra I (non-transferable)

Intermediate Algebra (non-transferable)



Transfer-level math

- Algebra II is considered a “high school-level math” by UC and CSU
- If students have NOT completed Algebra II with a C or higher in high school, they will most likely start here in a non-transferable math class
- Math is sequential, so where a student starts affects their entire transfer timeline



Math Issues we commonly see at DVC

- Classroom Observations:
 - Students are scared of fractions!
 - Students are used to always being allowed to use calculators
- Students take Algebra I freshman year then take 2 years of “other” math, like personal finance to meet HS graduation requirements.
 - In these cases, since it has been so long since the student has taken an Algebra-based class, the student typically needs to repeat Algebra I, and then take Algebra II to then get into a transfer-level math class.
- **In college, Time = Money! The longer students stay here, the more money and time they spend on tuition, books, etc.**

Math Pathways

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- With the new Multiple Measures Assessment process and the passage of AB 705, we will be relying heavily on HS transcripts for placement in Math and English
 - Students sometimes stop taking Math after meeting HS math graduation requirements, or take no math in 12th grade because they're "only going to DVC" 😊
 - **Scenario:** UC Berkeley requires that Psychology major students complete Calculus I and Elem Statistics in order to be accepted.
 - **Q: How many total math classes would a student starting in Math 120 need to take in order to transfer to UC Berkeley in Psychology? A: 4!**

Math Supports at DVC

Helping students progress and persist with math is something that all our systems of education (K-12, community college, 4-year college) are working on

Math Resources at DVC

- Fast Track Math Prep: 8-day intensive review of elem. and intermed. Alg aimed at helping students prepare to retake the Math assessment
- DVC Math Lab: Free tutoring available to DVC students Mon-Sat
- Statway & Accelerated Algebra I & II aim to shorten non-transferable sequence
- MESA (Math, Engineering, Science Achievement) Program
 - <http://www.dvc.edu/current/learning-community/mesa/index.html>
- Linked classes – “Fit For Life, Smart for Life” pairs a PE activity class + Algebra II
 - <http://www.dvc.edu/current/learning-community/fit-for-life-smart-for-life.html>

A Note about AP Scores....

- Colleges accept AP scores of 3, 4, or 5 for elective units, but they may not allow AP scores to fulfill specific major requirements.
 - Example: UC Berkeley does not accept any AP credits to fulfill any math requirement for the Psychology major (Even a 5 on AP Calculus!)
- AP classes are great for students to learn material and challenge themselves. **But passing the AP test is not a guarantee that students will “get out of” certain subjects once they are at college.**
- The acceptance of AP scores toward meeting specific subject requirements varies by university and major.

Thank you for all you do!



“The work that you do is absolutely essential for the future of our kids, the future that we say we want our kids to have. Reaching those goals, getting more kids into college, getting them better educated and better prepared for the jobs of the future ... You all are heroes.”

–Michelle Obama

School Counselor of the Year Awards, 2016