High School and AP Mathematics Curricula at Rockdale Magnet

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Outline

Current Offering

A Little History

Curricular Questions

Rockdale Magnet

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Curricular Questions

Rockdale Magnet

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Current Mathematics Offerings

Regular Analytic Geometry – Advanced Algebra – Precalculus – AP Calculus AB

Accelerated Analytic Geometry/Advanced Algebra – Precalculus – Magnet Calculus I – Magnet Calculus II or Advanced Finite Mathematics

Electives Mathematics of Industry & Government, History of Mathematics

This does mean that students *must* have Coordinate Algebra in middle school

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A Little History: 2000-01

Started in 00-01 with 9th/10th grade—by 02-03 we had all grades

- Regular Geometry Algebra II Precalculus AP Calculus BC
- Accelerated Algebra II Precalculus AP Calculus BC Joint Enrollment Discrete Math
 - Electives History of Mathematics (first offered 03-04)

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A Little History: 2005-06

Abandoned Joint Enrollment

Regular Geometry – Algebra II – Precalculus – AP Calculus AB or AP Calculus BC

Accelerated Algebra II – Precalculus – AP Calculus BC – Multivariable Calculus

Electives History of Mathematics

A Little History: 2006-07

Regular Geometry – Algebra II – Precalculus – AP Calculus AB or AP Calculus BC or AP Calculus AB Accelerated Algebra II – Precalculus – AP Calculus BC – Multivariable Calculus or Discrete Mathematics Electives History of Mathematics

A Little History: 2008-09

Regular Geometry – Algebra II – Precalculus – AP Calculus BC or AP Calculus AB

Accelerated Algebra II – Precalculus – AP Calculus BC – Multivariable Calculus or Discrete Mathematics

Electives History of Mathematics, Directed Study Mathematics

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A Little History: 2011-12

Regular Math II – Math III – Math IV – AP Calculus AB Accelerated Accelerated Math II – Accelerated Math III – Magnet Calculus I – Magnet Calculus II Electives History of Mathematics, Directed Study Mathematics

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A Little History: 2013-14

Regular Analytic Geometry – Advanced Algebra – Precalculus – AP Calculus AB

Accelerated Analytic Geometry/Advanced Algebra – Precalculus – Magnet Calculus I – Magnet Calculus II

Electives Mathematics of Industry & Government, History of Mathematics

Students who have only 8th Grade Math took a four-week summer Coordinate Algebra course taught by Magnet faculty

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Current Mathematics Offerings

Regular Analytic Geometry – Advanced Algebra – Precalculus – AP Calculus AB

Accelerated Analytic Geometry/Advanced Algebra – Precalculus – Magnet Calculus I – Magnet Calculus II or Advanced Finite Mathematics

Electives Mathematics of Industry & Government, History of Mathematics

Students who have only 8th Grade Math take an online Coordinate Algebra course in the Spring through Rockdale Virtual Campus taught by Magnet faculty

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Curricular Questions

- 1. So You Don't Teach AP Calculus To All Students?
- 2. What About Georgia Tech Calculus?
- 3. Where's AP Statistics?
- 4. Why Teach History of Math?
- 5. What's This Advanced Finite Mathematics?
- 6. What About Kids Who Need Support?
- 7. What About Kids Who Need More Acceleration?

Yes, we do-we just don't call it AP Calculus!

 Magnet Calculus I is all of AB plus part of BC plus some DE topics.

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- Magnet Calculus II is the rest of BC plus linear algebra plus multivariable calculus plus some DE topics

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- Students still take AP Exam

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 - Opt to take AB exam at the end of Calc I

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- Students still take AP Exam
 - Opt to take AB exam at the end of Calc I
 - Must take BC exam at the end of Calc II

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- Magnet Calculus II is the rest of BC plus linear algebra plus multivariable calculus plus some DE topics
- Students still take AP Exam
 - Opt to take AB exam at the end of Calc I
 - Must take BC exam at the end of Calc II
 - Changed in response to juniors who felt overwhelmed with AP

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Magnet Calculus I and II

Calculus: Dynamic Mathematics



Volume 1, 464 pages



Volume 2, 432 pages

Proposed for 05-06 school year and rejected

Equipment too costly

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- Equipment too costly
- Required scheduling two block periods

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- Some students & parents considered this JE

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- I can teach it

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- I can teach it
- Students can argue for credit on their own (and have)

Where's AP Statistics?

Most of AP Stats content is taught in Research classes

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- Most of AP Stats content is taught in Research classes
- Offered as an Independent Study course to some students who want the AP credit

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Where's AP Statistics?

- Most of AP Stats content is taught in Research classes
- Offered as an Independent Study course to some students who want the AP credit
- Not popular enough

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- Answers the perennial question "why?"

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- Some students are still interested in Humanities
- Arguably the most popular elective at RMSST

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- All juniors taking Calculus I were forced into Calculus II senior year
 - Calc II was not for everyone
 - More calculus does not fit every student's career/college path
- Wanted to bring back Discrete Math as an alternative to Calc II
- Developed "Advanced Finite Mathematics"

What About Kids Who Need Support?

 We do offer Support classes for 9th through 11th grades if needed

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What About Kids Who Need Support?

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- We also offer Precalculus Support
- Highly selective about who needs the support (this takes away an elective)

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 - Take a final exam before school starts; must make 80% or higher

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 - I meet with them as the need arises
 - Take a final exam before school starts; must make 80% or higher
 - Course does not appear on transcript

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More Questions?

Please ask!

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