



QUEST
ENRICHMENT
CENTER

EMPHASIS IN MATHEMATICS

Appropriate for:

Students pursuing a career in the area or fields of mathematics, including actuary, mathematician, data scientist, operations research analyst, software engineer finance, economics, education, engineering, and business.

UPDATED

EDITION

EMPHASIS & HONORS OVERVIEW

Graduating with an Emphasis Cord shows a dedication to a specific subject matter; receiving an Honors Medallion shows application and experience of the gained knowledge. Both can open doors to opportunities with employers and universities! Customizable options are available upon request.

APPLICATION PROCESS:

1. Plan high school classes with criteria of desired cord.
2. Document completed coursework on Quest's online application form, ([click here](#)), then save progress to be updated year after year. Planning and documentation can begin anytime during high school, but students are encouraged to begin in their freshman year.
3. Once a student has documented and included all necessary information, the form is to be submitted by the announced deadline to be reviewed.

GENERAL CRITERIA:

- Students must maintain a 3.5 GPA in classes qualifying for the particular emphasis cord
- Students must maintain a 3.5 GPA overall in all high school classes for the honors medallion.
- The student must display honorable character and a clean disciplinary record.

Application does not guarantee that the student will receive the cord, but students are likely to be eligible for multiple cords and may apply for up to three. This number does not include any Social Cords they may receive for Honor Society, Student Council, or the Community Connection Cord.

MATHEMATICS COURSE REQUIREMENTS

1

COURSE REQUIREMENT

- Completion of 4 advanced math classes during all 4 years of high school.
- Completion of Calc 1, Calc 2, Calc 3, Calc 4 or Probability & Statistics during senior year.
- **OPTIONAL:** Complete an AP exam with a 4 or 5 (before senior year) in substitution for one of the 6 science classes.

ADVANCED MATHEMATICAL SUBJECTS

- Algebra II
- Probability & Statistics
- Precalculus/Trigonometry
- Calculus 1
- Calculus 2
- Calculus 3
- Calculus 4

2

CREDIBILITY REQUIREMENT

- Provide a transcript & Schoology grade report (instructions to download this are on the form).
- If coursework has been done outside of Quest, provide proof for class completion/grades (report card, scores email, teacher's signature).

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ONE ADDITIONAL REQUIREMENT (CHOOSE 1)

- Serve as a TA in an elementary, middle school, or high school math course, for an entire year.
- **OR** Complete 30 hours of tutoring in mathematics.

HONORS MEDALLION REQUIREMENTS

Honors Medallions are earned through practical application and experience. **Customizable options are available for students who need accommodations.**

ELIGIBILITY

- Students must be pursuing the mathematics emphasis cord and must maintain a 3.5 GPA average in high school.
- Unlike the emphasis cord, a medallion requires prior approval of the student's plan for this honor. Approval must be received prior to starting any apprenticeship, internship, practicum, or senior project.
- Students must complete the approved plan before graduation.

APPLICATION PROCESS

1. Choose a minimum of 2 medallion options and submit on this online form ([click here](#)) to be approved.
2. After receiving approval, document progress on the same form as the emphasis cords.

MEDALLION OPTIONS (MINIMUM OF 2)

- Completion of a math-based project 2 of the 4 years of high school. Can be an ongoing project over the two years. Must either result in publication or be presented at least once at a juried event such as a science fair or medical conference.
- Becoming a student instructor during senior year under the guidance of a senior instructor. Must complete a designated number of hours of instruction as predetermined by the student and instructor.
- Successful participation in outside financial, accounting or other area related internship. Letter of recommendation from mentor required upon completion.
- Participation in a mathematical competition.

The options listed are not all inclusive. If you wish to apply yourself in other ways, include those when you submit your proposed plan.

Q WHERE AND WHEN DO I BEGIN?

A Begin preparation *before your freshman year* or as early as possible. Your first step is to make an Aspire appointment, then to read all instructions on [the online form](#).

Q I HAVE BEGUN LATE IN THE GAME. HOW SHOULD I PROCEED?

A Set up an [Aspire appointment](#) to see what cords you qualify for or should work towards. Then, begin documenting all your current high school progress on [the online form](#) and receive feedback by submitting for review.

Q WHERE CAN I FIND COURSES TO SATISFY THE REQUIREMENTS?

A Quest courses or private lessons are the best way to fulfill this academic journey! Other programs may also apply, such as: [JTED](#), [Pima College](#), [Coursera](#), [edX](#), [Modern States](#), [KHAN Academy](#). Some free online courses include: *Math's Essentials*, *Basic Statistics*, or *Mathematics for Engineers Specialization*.

Q HOW DO I DOCUMENT WORK COMPLETED OUTSIDE QUEST?

A Since outside programs offer courses that could qualify towards emphasis cords or medallions, students can ask for approval for outside classes by describing and submitting their past or current progress for review on [the online form](#). Credibility of scores must be provided in some way; this may be a report card, proof of completion email, or signature from teacher or advisor.

Frequently Asked Questions

Q HOW DO THESE ACALADES APPLY TO MY FUTURE?

A Emphasis Cords and Medallions are helpful in applying for scholarships and getting into honors collages and groups. They also help you to excel in particular fields.

Q I NEED THESE HONORS BEFORE I APPLY TO COLLEGE AS A JUNIOR!

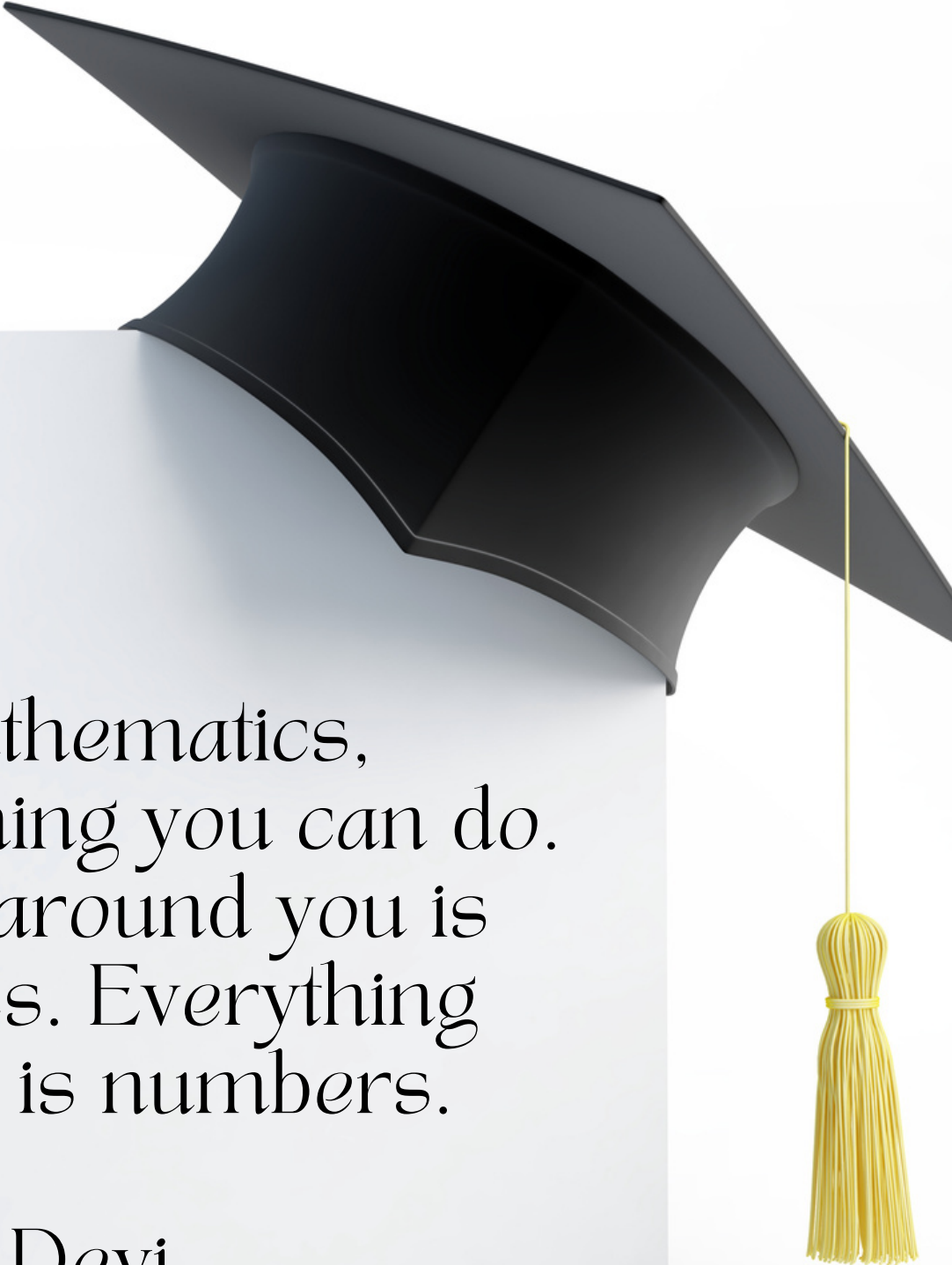
A If you are applying to collages in your junior year and want these honors on your transcript before graduation, please work with our Student & Parent Life Coordinator. Coursework can be completed and reviewed anytime during your high school year.

Q WHO CAN I TALK TO ABOUT CUSTOMIZABLE OPTIONS?

A Set up an advising meeting with our Student & Parent Life Coordinator. She will walk you through options we offer all our students and the best path to your individual success.

Q WHAT ARE HONORS CONTRACTS AND HOW DO I GET AND USE ONE?

A Individual Honors Contracts are available to all students to elevate any of Quest's high school courses to an honors class. Emphasis Cords require two honors (or dual credit) courses to be completed. Honors Contracts allow students to meet these requirements if a class is not already listed as AP/honors.



Without mathematics,
there's nothing you can do.
Everything around you is
mathematics. Everything
around you is numbers.

–

Shakuntala Devi