EMPHASIS IN COMPUTER SCIENCE

Appropriate for:

Students pursuing a career in the area or fields of computer science. These include technical support, computer programmer, data analyst, web developer, sales engineer, database administrator, network engineer, cybersecurity specialist, or software engineer.

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 Chord.

TECHNOLOGY CORD REQUIREMENTS

1 **COURSE REQUIREMENTS**
- Completion of 6 classes with at least one in each of the four categories through all 4 years of high school.
- OPTIONAL: Complete an AP exam with a 4 or 5 (before senior year) in substitution for one of the 6 classes.
- Only one software class may be put towards the 6 total computer science classes.
- Complete a technology-based Advanced Research & Design or Independent Impact Project and present at either an engineering or science fair.

PROGRAMMING
- Intro to Python 3 Training
- Advanced Python 3 Training
- Intro to SQL Training
- Intro to Java Training
- Intro to PHP Training

WEB DESIGN
- Intro to HTML Training
- Intro to CSS Training
- Intro to JavaScript Training
- Advanced JavaScript Concepts
- Intro to Bootstrap Training
- Intro to Dreamweaver Creative Cloud

SOFTWARE (PICK 1)
- MS Word Training (2 levels)
- MS Excel (2 levels)
- MS PowerPoint (2 levels)

COMPUTER SCIENCE
- CS Discoveries
- CS Principles
- AP CSA

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).

3 **ONE ADDITIONAL REQUIREMENT (CHOOSE 1)**
- Serve as a TA in any elementary - high school computer science course, for an entire year.
- **OR** Serve for a total of 30 hours in computer lab.
- **OR** Interview two professionals in a technological field. Compile a paper discussing the job's pros and cons. (What problems have they faced? Career longevity?)

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 computer science 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 your progress on the emphasis cord application form.

MEDALLION OPTIONS (MINIMUM OF 2)
- Completion of a semester long apprenticeship with Quest in area of greatest interest. Letter of recommendation from mentor required upon completion.
- Successful completion of at least 30 hours of tutoring related to technology.
- Completion of apprenticeship with outside business or corporation regarding technology/engineering. Letter of recommendation from mentor required upon completion.
- Participation in a computer science, web design, robotics, or programming competition during a high school term.
- Completion of 2 additional courses listed in the categories for the technology emphasis cord.
- Submission of a well-developed and thorough programming, web design, or computer science-related improvement that could be implemented at Quest.
- Submission of a creative solution IT for local business or small business.
- Completion of a COMPTIA certification as a senior project.

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

Honors & Experience

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 offer applicable courses, such as: *Computer Science/Information Technologies* at *JTED*, *Google IT Support* at *Coursera,* *Computer Vision/Image Processing* at *edX,* or Pima College and *KHAN Academy*.

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.

Technology is best when it brings people together.

—

Matt Mullenweg