ABOUT THE DEPARTMENT

The Department of Mathematics & Computer Science is one of the oldest at Washington College. Our department offers majors and minors in Math and Computer Science, as well as joint minors in Information Systems and Data Analytics with the Business Department. The majors offered by our department pair well with other disciplines for students interested in multiple areas of academic study.

STUDENT ACTIVITIES

• **ACM Programming Contest:** The Association of Computing Machinery’s International Collegiate Programming Contest (ACM-ICPC) takes place annually. Three-member teams from competing colleges and universities are given five hours and one computer to solve eight programming problems. Scoring is based not only on accuracy but also on the time taken to devise a solution. With 163 teams, the Mid-Atlantic region is the largest in the United States and the third largest in the world. Washington College has been a regional host site for the Mid-Atlantic region since 2002.

• **Tutoring and Mentoring:** The Math Center is an academic resource available to all members of the Washington College community. Students may pursue tutoring and course mentoring opportunities.

• **Clubs:** Our students are active in many clubs on campus. - The Computing Club - The Math Club - Pi Mu Epsilon Honor Society - Makers Union - eSports - Washington Interactive Gaming Society (WIGS)

COLIN HOLLINGSWORTH TUTOR ENDOWMENT

In the fall of 2013, the Quantitative Skills Center of Washington College received a generous gift to establish an endowment for a tutor’s salary. The gift was made in honor of Colin Hollingsworth, a graduate of Washington College in 1933. The Colin Hollingsworth Tutor Endowment provides a salary for a selected tutor each academic year. In addition to academic abilities, the tutor will be selected based on leadership potential and passion for helping others. The student selected will continue to serve as a tutor in the Quantitative Skills Center but will also take on the added responsibility of helping the Director with the training of new tutors and serving as a mentor and resource for the entire staff.

COURSEWORK & SCE

All of our students have the opportunity to work one-on-one with a professor on a year-long project in the senior year. Before graduation, each student makes a comprehensive presentation of their work to the students and faculty of the department.

Students in the MAT major will complete a sequence in Calculus and in proof writing. Elective courses include Number Theory, Complex Analysis, and Geometry.

Students in the CSI major will complete a sequence in writing programs as well as a sequence in theoretical computer science. Electives include courses such as Operating Systems, Networks, and Artificial Intelligence.

In addition to standard courses, we offer special topics courses based on the interest of our current students. Some recent special topics courses are Calculus of Variations (Fall ’18), Data Science (Fall ’18), History of Math (Fall ’19), and Game Design (Fall ’19).

NATIONAL SECURITY SCHOLARSHIP PROGRAM

Each year, multiple students from WC are selected by a consortium of defense contractors for well-paid summer internships that often result in scholarships over subsequent semesters and job offers with those companies or directly with the Department of Defense. The process is competitive, and a student usually gets a high security clearance, which opens up multiple career paths.
WHY MATHEMATICS AND COMPUTER SCIENCE AT WASHINGTON COLLEGE?

1. Caring and Engaged Faculty
Student success is the number one priority for the faculty. We strive to push our students towards greatness, while offering them the support they need to achieve their goals.

2. Solid Coursework, Small Classes, and a Liberal Arts Education
Class size is close to 20 in the lower levels, and an upper-level class may contain as few as seven students. There is a strong emphasis on writing and oral expression in the content area. The small class size allows for a personalized experience. Many of our students choose to double major. The liberal arts environment supports students who wish to earn degrees in seemingly unrelated fields. Although Business Management, Computer Science, Mathematics, and Physics are often coupled, we have some students who choose their second major from the Humanities and Fine Arts, as well.

3. Research Opportunities
Students have opportunities to work on research projects under the supervision of a faculty member outside of the classroom through the Senior Capstone Experience and the John S. Toll Fellows Program.

4. You learn how to build programs, build apps for iOS and Android, and design databases.
Our computer science majors receive training across multiple programs, including in C++, Java, and various other languages on Linux, Windows, and OSX. Students also learn to design and build databases using ACCESS and MySQL.

5. Mathematics & Computer Science jobs available on campus for students.
Many of our students work at Geographic Information Systems, the Help Desk, or tutor through the Quantitative Skills Center.

6. Job Opportunities
There have been many and varied positive job market outcomes. In particular, the curriculum results in excellent preparation for graduate school and secondary school teaching. Many of our students have paying internships in the summers following their sophomore and junior years. Almost everyone is employed by the end of August; some even have standing job offers months before they graduate. Our graduates work at Amazon, Booz Allen Hamilton, Google, IBM, Lockheed Martin, Northrop Grumman, Raytheon, the Department of Defense and various intelligence agencies, as professors at universities, and as teachers.

Caroline Cox ’19

Major: Math & Computer Science
Minor: German Studies & Dance
Occupation: Software Engineer

Caroline Cox ’19 credits her time in the Math & Computer Science program for her career readiness:

“Washington College and the Math & Computer Science Department have given me not only a deeper understanding and love for both fields, but also the confidence that I am prepared for my future career. The professors always challenged me to go one step further and embrace my curiosity when I discovered a new topic that interested me.

From engaging special topic courses that gave me exposure to new and different questions in both fields to class projects that I was able to reference during job interviews, the past four years have taught me more than just math and computer science, but also how to think critically, present my knowledge clearly and effectively, and so many more life skills that will help me both in my future job and in life in general.”