




Computer Science

March 1, 2016



Computer Science/Engineering Survey Results

Survey included two groups of respondents: students in grades 9-11 and seniors;

Students in Grades 9-11:

241 respondents;

130 females;

111 males.

Seniors:

103 respondents;

59 females;

Computer Science/Engineering Survey Results

Students in grades 9-11 were asked to indicate their interest in taking the following **Computer Science** courses:

Course	Females	Males	Total
Introduction to Programming	42	51	93/241
AP Computer Science A	22	23	45/241
Programming in Java	17	24	41/241
AP Computer Science Principles	12	20	32/241

Computer Science/Engineering Survey Results

Seniors were asked to indicate their interest in taking a range of **computer science** courses/electives had they been offered during their time at AHS. Their top four choices were:

Course	Females	Males	Total
Introduction to Programming	23	26	49/103
Introduction to Website and Web Development	17	12	29/103
Mobile Phone Development	18	10	28/103
Cybersecurity	14	11	25/103

Computer Science/Engineering Survey Results

Students in grades 9-11 were asked, "If Ardsley High School offered an **Introduction to Engineering course** that gave you the opportunity to earn college credit, would you be interested in taking the course in the 2016-2017 school year?"

Answer	Female	Male	Total
Yes	72	80	152
No	59	31	90
Total	131	111	242

Computer Science/Engineering Survey Results

Seniors were asked to indicate their interest in taking an **Introduction to Engineering** course had one been offered during their time at AHS:

14 females indicated an interest in the course;

19 males indicated an interest in the course;

This represents 33 seniors out of a total of 103 who would have liked the opportunity to take an **engineering course** in high school.

Introduction to Programming

Begins with by introducing students to the field of computer science and website design;

Continues by introducing Scratch and builds foundational understandings in programming (logic, structuring programs);

Students move on to learn the more complex language of Java. This reinforces the logical ideas they have acquired and prepares them to take AP Computer Science A;

Students create a capstone project that showcases their skills and creativity.

AP Computer Science A

Course is taught in Java;

Students learn the basic principles of software engineering and object-oriented programming;

In Ardsley, we have added high interest content to the course. Students create graphical programs that push them beyond text oriented projects;

Includes a 20% Genius Hour where students:

- Create long-term projects that represent their passions;

- Current projects being developed include: Sudoku, Minesweeper, and a Game of Life simulation;

- Projects are presented “Shark Tank” style after the AP examination.