



Certificate in Applied Sciences Requirements

The certificate program is no longer accepting applications.

General Requirements

To earn the certificate, meet the following requirements.

- **Complete eight courses** (32 credits) according to your concentration requirements.
- Take all courses for **graduate credit** at Harvard Extension School or Summer School, and **earn a B– or higher grade** in each (B or higher in the three required for admission) and **an overall GPA of 3.0**. See Academic Standing and Enrollment on the website.
- **Complete at least three of the eight courses with Harvard-affiliated instructors.**
- **Complete the program within five years** of the first course. If you are unable to complete the certificate within five years you are retired from the program.

Concentration Requirements

Each of the four areas of concentration has unique course requirements.

Software Engineering

- One introduction to computer science I course
- One introduction to computer science II course
- One data structures course
- One application development course
- One mathematics or quantitative reasoning course
- Three electives
(preferably in specialized areas of computer science)

Multimedia and Creative Content

- One introduction to computer science I course
- One introduction to computer science II course
- Four technical writing, creative content, or multimedia courses
- Two electives

Computer Science

- One introduction to computer science II course
- One data structures course
- Three advanced software or hardware engineering courses
- Two mathematical or theoretical foundations courses
- One elective

Information Systems and Electronic Commerce

- One introduction to computer science I course
- One introduction to computer science II course
- One networks and data communications course
- One database management course
- Three information management systems and e-commerce courses
- One elective

Selecting Courses

Use the **degree course search** to select courses that fulfill requirements. The degree course search can be accessed on the 2009-10 website courses page: www.extension.harvard.edu/2009-10/courses.