

Computer Science Master's Degree Program

10 Online Courses:

- 2 Admission Courses
- 8 Core Courses

1 On-Campus Precapstone Course

1 Online Capstone Course

Explore several examples of how you might progress through the program at a pace that works for you.

- 2-year accelerated pathway: Illustrates how a student might complete the program on an intensive timeline, taking a full course load each term.
- 3-year steady pace pathway: Demonstrates a steady, year-round pace that supports consistent progress while balancing work and study.
- 4-year extended pathway: Reflects a more flexible approach, allowing lighter course loads or breaks between semesters.

Each pathway represents one possible way to structure your studies. Your path will depend on your goals and schedule. Courses listed here are examples; availability may vary by year.

Learn more about the [computer science program courses and degree requirements](#).



Harvard Extension School

HARVARD DIVISION OF CONTINUING EDUCATION



2-Year Pathway

This accelerated pathway illustrates how a student can fast-track their studies, balancing multiple courses in back-to-back terms.

Completing the **admission courses** in the same term is intensive; consider the course load and your schedule before deciding how quickly to begin.

The summer precapstone and fall capstone sequence suits both U.S. and international students.

Year 1

Spring

2 Courses

- **Admission Course**
Introduction to Computer Science Using Java II
- **Admission Course**
Data Structures

MILESTONES:

- Connect with a predegree and admissions advisor for support during the admission process.
- Submit your application while completing the courses for admission (application period open March 15–April 15).

Summer

2 Courses

- **Discrete Math Course**
Discrete Mathematics for Computer Science
- **Course in Data Science, Artificial Intelligence, or Machine Learning**
Example: Deep Learning

MILESTONES:

- Celebrate admission.
Decisions released in June.
- Connect with an academic advisor to plan your degree path.

Fall

3 Courses

- **Algorithms Course**
Example: Introduction to Algorithms, Computability, and Complexity
- **Theoretical Computer Science Course**
Example: Systems Programming and Machine Learning
- **Software Engineering Course**
Example: Software Design: Principles, Models, and Patterns

MILESTONE:

- Convocation. Join us on campus for a celebration with fellow degree candidates.



2-Year Pathway

Year 2

Spring

3 Courses

- **Theoretical Computer Science Course**

Example: Unix/Linux Systems Programming

- **Software Engineering Course**

Example: User Experience Engineering

- **Cloud Computing Course**

Example: Fundamentals of Cloud Computing and OpenAI with Microsoft Azure

Summer

Precapstone Course

MILESTONE:

- On-campus experience. In a 3-week course, collaborate with your project team, industry partner, and faculty on a capstone plan.

International students: Plan ahead during the prior term for necessary visa and travel logistics.

Fall (Final Term)

Capstone Course

MILESTONE:

- Complete your capstone project & fulfill your degree requirements for graduation.

Graduation (May)

Join your peers on campus to celebrate at Harvard University Commencement.

Stay engaged through the Harvard Alumni Association and Harvard Extension School Alumni Association.



3-Year Pathway

This sample plan illustrates a steady pace, with the admission courses taken separately in back-to-back terms. The path includes a January precapstone and spring capstone sequence (*the January precapstone course is only available to U.S. students*).

Year 1

Fall

1 Course

- **Admission Course**
Introduction to Computer Science Using Java II

MILESTONES:

- Earning your way in. Complete your first course for admission.
- Connect with a predegree and admissions advisor for support during the admission process.

Spring

1 Course

- **Admission Course**
Data Structures

MILESTONE:

- Submit your application while taking your second admission course (application period open March 15–April 15).

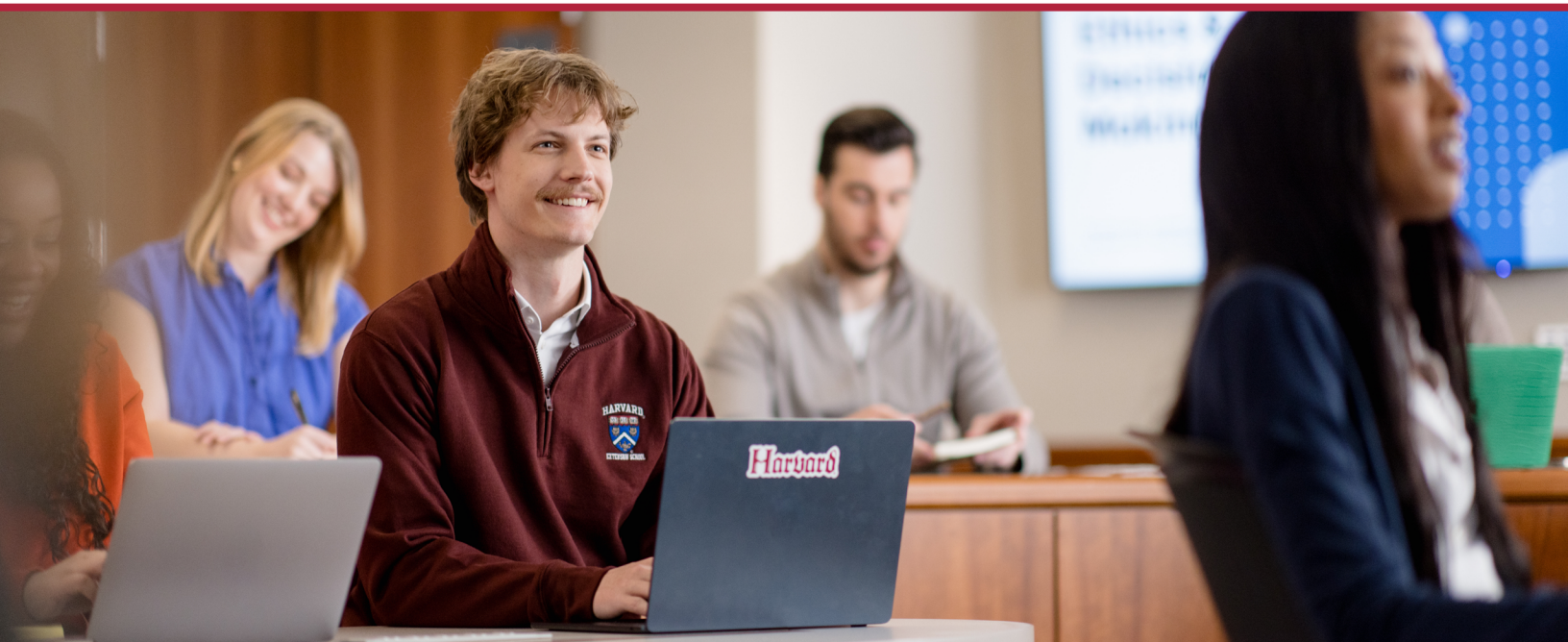
Summer

1 Course

- **Software Engineering Course**
Example: User Experience Engineering

MILESTONE:

- Celebrate admission. Decisions released in June.
- Connect with an academic advisor to plan your degree path.



3-Year Pathway

Year 2

Fall

2 Courses

- **Discrete Math Course**
Discrete Mathematics for Computer Science
- **Algorithms Course**
Example: Introduction to Algorithms, Computability, and Complexity

MILESTONES:

- Convocation. Join us on campus for a celebration with fellow degree candidates.

Spring

2 Courses

- **Theoretical Computer Science Course 1**
Example: Unix/Linux Systems Programming
- **Theoretical Computer Science Course 2**
Example: Computer Architecture

Summer

1 Course

- **Course in Data Science, Artificial Intelligence, or Machine Learning**
Example: Deep Learning



3-Year Pathway

Year 3

Fall

2 Courses

- **Software Engineering Course**

Example: Software Design: Principles, Models, and Patterns

- **Cloud Computing Course**

Example: Programming in Scala for Big Data Systems

January

Precapstone Course

MILESTONE:

- On-campus experience.
In a 3-week course, collaborate with your project team, industry partner, and faculty on a capstone plan.

Spring (Final Term)

Capstone Course

MILESTONE:

- Complete your capstone project & fulfill your degree requirements for graduation.

Graduation (May)

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4-Year Pathway

This extended pathway represents a flexible, part-time pace, with online courses taken only in the fall and spring semesters. It culminates in a summer precapstone and fall capstone sequence — ideal for both U.S. and international students.

Year 1

Fall

1 Course

- **Admission Course**
Introduction to Computer Science Using Java II

MILESTONES:

- Earning your way in. Complete your first course for admission.
- Connect with a predegree and admissions advisor for support during the admission process.

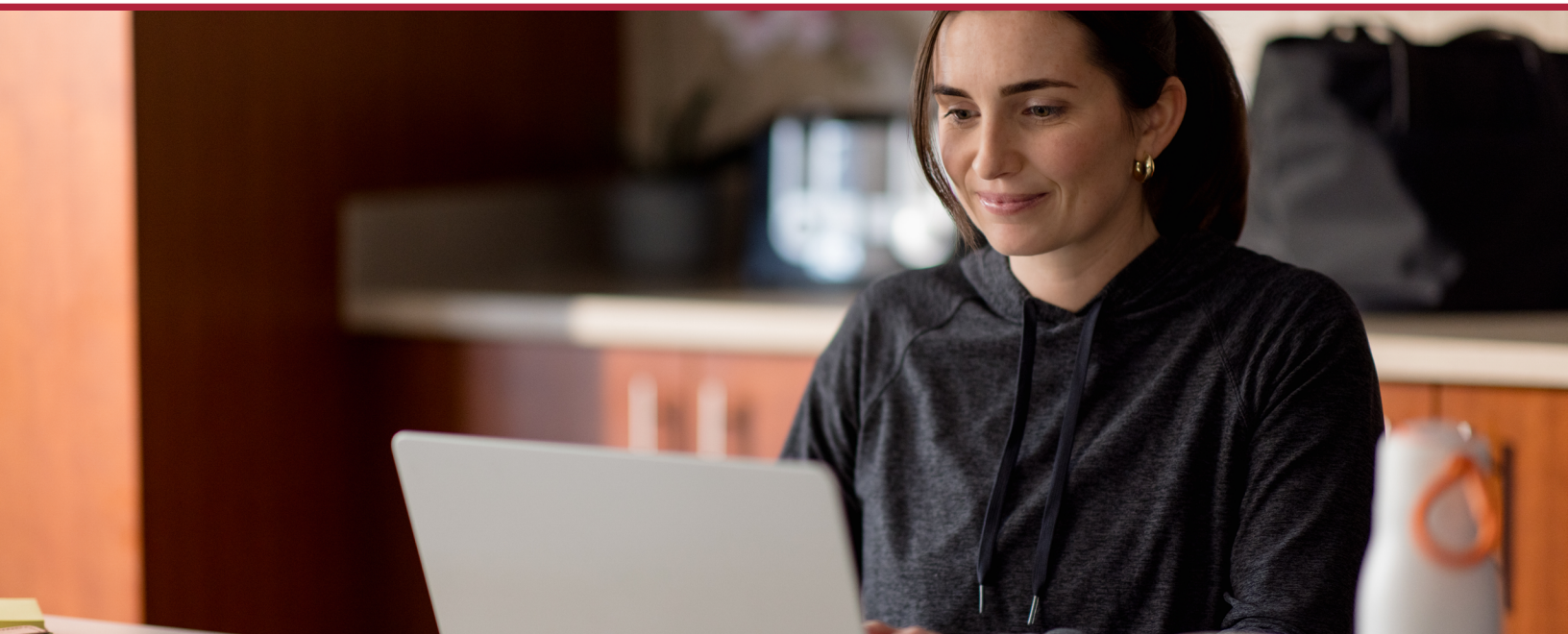
Spring

1 Course

- **Admission Course**
Data Structures

MILESTONE:

- Submit your application while taking your second admission course (application period open March 15–April 15). Admission decisions released in June.



4-Year Pathway

Year 2

Fall

2 Courses

- **Discrete Math Course**
Discrete Mathematics for Computer Science
- **Algorithms Course**
Example: Introduction to Algorithms, Computability, and Complexity

MILESTONES:

- Convocation. Join us on campus for a celebration with fellow degree candidates.
- Connect with an academic advisor to plan your degree path.

Spring

2 Courses

- **Theoretical Computer Science Course 1**
Example: Unix/Linux Systems Programming
- **Theoretical Computer Science Course 2**
Example: Computer Architecture



4-Year Pathway

Year 3

Fall

2 Courses

- **Course in Data Science, Artificial Intelligence, or Machine Learning**

Example: Deep Learning

- **Software Engineering Course**

Example: Software Design: Principles, Models, and Patterns

Spring

2 Courses

- **Cloud Computing Course**

Example: Fundamentals of Cloud Computing and OpenAI with Microsoft Azure

- **Software Engineering Course**

Example: Digital Media Design: From Prototypes to Products and Services

Summer

Precapstone Course

MILESTONE:

- On-campus experience. In a 3-week course, collaborate with your project team, industry partner, and faculty on a capstone plan.
International students: Plan ahead in the prior term for necessary visa and travel logistics.

Year 4

Fall (Final Term)

Capstone Course

MILESTONE:

- Complete your capstone project & fulfill your degree requirements for graduation.

Graduation (May)

- Join your peers on campus to celebrate at Harvard University Commencement.
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