

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.



## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.

## Math 540: Introduction to Algebraic Topology I

**Instructor:** Kristen Hendricks

**Email:** [kristen.hendricks@rutgers.edu](mailto:kristen.hendricks@rutgers.edu)

**Course Location and Time:** TTh 1:00-2:20 in HLL-005

**Website:** [www.math.rutgers.edu/~kh754/Math540.html](http://www.math.rutgers.edu/~kh754/Math540.html)

**Office Hours:** T 3-4, Th 11-12 over Zoom; Meeting Id 570 840 4797 with passcode cycle.

**Prerequisites:** Point-set topology and knowledge of abstract algebra (groups, rings, fields).

**Topics:** This is a standard first course in algebraic topology. We will cover the fundamental group, covering spaces, and singular, simplicial, and cellular homology and cohomology. Along the way we will prove some rather nice applications.

**Assignments:** Homework exercises for each week will be posted some time before the start of Tuesday's lecture, and distributed in class. Registered students are expected to write up and hand in roughly half the homework exercises. Exercises may be handed in via hard copy or (mildly preferred) canvas upload.

**Notes:** Lecture notes will be posted shortly after class (indeed, typically but not always before).

**Texts:** The textbook for this course is A. Hatcher's [Algebraic Topology](#), which is available for free on his website. It is a very friendly textbook; doing the reading before coming to lecture is advised. We will be covering roughly Chapters 0-3, excluding the special topics.

Other good books on the same material include:

J. P. May, [A Concise Course in Algebraic Topology](#). Available at May's website.

W. Massey, *Algebraic Topology: An Introduction* and *A Basic Course in Algebraic Topology*.

J. Munkres, *Elements of Algebraic Topology* and *Topology*.

E. Spanier, *Algebraic Topology*.

A. Fomenko and D. Fuchs, [Homotopical Topology](#). Available through Rutgers SpringerLink.

**Covid Safety:** Everyone must wear a mask to class which covers the nose and mouth.