Imagine studying abstract algebra in the United Kingdom or complex analysis in Australia. There are many first-rate study abroad programs where you can get excellent instruction in math courses taught in English at reasonable cost.

By its nature, Mathematics is international and yet its study takes place in a cultural context and is often influenced by that context. There is much to be gained from understanding its history and traditions in a culture other than your own. Study abroad is one very exciting way to discover new approaches and build your professional skills.

Take a look at how study abroad can benefit YOU...

- Find interesting mathematics coursework that may not be available at MSU
- Understand how mathematics can look different from one country to another
- Expand your cross-cultural communication and problem-solving skills
- Prepare yourself to work in an increasingly diverse and international workplace
- Broaden your mathematical and other academic horizons
- Globalize your world view
- Fulfill your foreign language requirement

How can I make it happen?

The process of selecting a study abroad program is similar to selecting a course of study for your major or minor. Your program should ideally include math courses as well as courses that may fulfill Integrative Studies, college, or department requirements. Here are some ways to get started...

**Plan early** - It’s never too early to start planning for study abroad. Talk with your adviser. If you plan ahead, you can sequence your courses so that you can maximize your opportunities abroad.

**Set goals** - There is not any one program that is best suited for all students. There are many good study abroad programs, and the best one for you depends on your math background and your goals. Consult your adviser for assistance.

**Prioritize** - Consider your long-term academic and professional goals, as well as your on-campus degree requirements.

**Be open** - Consider both short- and long-term programs, as well as opportunities for intensive language study, such as Spanish in Mexico; Chinese in China; Arabic in Egypt; or French in France, among others.

**Prepare academically** - You may need to take language or other prerequisites for your chosen program.

**Do your homework** - Give yourself time to gather information. Talk to advisers and students who have studied abroad, especially students who have studied mathematics abroad.

With proper planning, study abroad can help prepare you for professional life in today’s global context.
Can I afford to study abroad?

YES! Early planning for study abroad helps you make cost-effective program decisions, and helps you prepare your finances through savings, scholarships, and financial aid. Financial aid applies to study abroad and, in some cases, your eligibility will increase to cover additional expenses.

The Office of Study Abroad offers numerous scholarship opportunities, as does the Honors College. The College of Natural Science offers study abroad scholarships for its majors, and the American Mathematical Society (http://www.ams.org) is a source for scholarships for mathematical study in Moscow and possibly other locations. The Office of Study Abroad Resource Room, 108 International Center, provides information about these and a variety of other scholarships available to undergraduate students.

What are my next steps?

1. **Investigate Programs** - Use the study abroad resource room, Web site, and advisors to find a program that fits your goals. Be sure to visit the Office of Study Abroad in room 109 of the International Center. The office is open Monday through Friday from 8 am to 5 pm and is available 24/7 on the Web at http://studyabroad.msu.edu.

2. **Talk to Your Academic Adviser** - Your adviser may have some specific advice for you. If you are interested in taking a math course abroad through direct enrollment in another institution, check MSU’s searchable transfer credit equivalency system at http://www.transfer.msu.edu/ to see if course equivalencies are listed for math or other courses you’re interested in taking. If a math course equivalency is not listed, go to the institution’s Web site, print a course description, and present it to the Director or Assistant Director of Undergraduate Studies to see if its course equivalency can be established.

3. **Attend a Study Abroad Fair** - This is a “one-stop” shopping experience where you can find out what MSU has to offer and talk with professors and past participants right there on the spot. Two fairs are held each year - one each in fall and spring semesters - in the Union.

Academic Considerations for Mathematics Majors

**Math requirements:** In order to satisfy requirements for the math major without taking summer session courses at MSU, it is recommended that you complete the calculus sequence (MTH 132-234) and linear algebra (MTH 309) before you study abroad. Different schools often cover some but not all topics covered in our MTH 132-234 sequence and even if they cover the same topics, they might be ordered differently. Furthermore, MTH 309 at Michigan State differs from many other linear algebra courses in that it not only covers traditional linear algebra topics, but is also a Tier II writing course which emphasizes theory and proofs. Therefore, if you complete MTH 234 but not MTH 309 before your study abroad experience, it is recommended that you take MTH 309 after you return and consider taking one of the following abroad: a probability-statistics course equivalent to STT 351, STT 430, or STT 441, and/or a differential equations course equivalent to MTH 340. Speak to your math adviser about additional possibilities.

**Foreign Language requirements:** The requirement is first-year competency for the BS in Mathematics, second-year competency for the BA in Mathematics, with analogous requirements for the BS or BA in Computational Mathematics. Many study abroad programs can help fulfill this requirement - see pages 8-11. Please note that math majors who complete the Teacher Certification Program are allowed to waive one year from the language requirement.

**Integrative Studies requirements:** Students may take selected general education requirements through study abroad. In particular, Math majors may consider taking their first ISS and second IAH courses abroad. For complete listings, do a program search by subject at http://studyabroad.msu.edu.
Study Abroad Programs in Mathematics

**MSU PROGRAMS**

In the section below, the symbol ✦ denotes institutions abroad co-sponsored by the College of Natural Science and the Department of Mathematics. For these programs, two course numbers are provided. The first is the number of a host institution course. This course has, in the past, been used as a substitution for the MSU course in parentheses. On such programs you will earn grades unless, with approval from your adviser, you choose to earn CR/NC. Some institutions abroad are not sponsored by the College of Natural Science, but have been approved by the Department of Mathematics. These programs also offer students opportunities to take courses that meet graduation requirements. They are denoted by the symbol ✦.

To ensure that your course credit is calculated appropriately, your course selections must be approved by your academic adviser prior to departure. For more information, go to the section on co-sponsored programs at http://studyabroad.msu.edu/people/students.html.

**AUSTRALIA**

**Macquarie University in Sydney ✦**

Macquarie University began in 1964 and has earned the title “Australia’s Innovative University.” It is a world-class place to study with more than 29,000 students (including 6,000 international students from 80 different countries). More than 150 student clubs make it easy to meet new friends.

Math courses: MATH 337 (MTH 418H); MATH 338 (MTH 419H); MATH 237 (MTH 481)

Web site: http://studyabroad.msu.edu/programs/macquarie.html

**Monash University in Melbourne ✦**

Monash University, established in 1961, is now Australia’s largest university and is particularly well known for its engineering and technology programs. Students are distributed between two main campuses – Caulfield and Clayton - according to areas of interest. Clayton offers a tranquil setting but has easy access to downtown Melbourne. The campus offers a rich array of sporting, cultural and educational events and facilities. Caulfield offers a diverse range of programs featuring a range of visual arts, educational and sporting facilities, and has well-established links with industry, government and the local community.

Math courses: MTH 1020 (MTH 132); MTH 2010 (MTH 234); MAT 2902 (MTH 235); MTH 2140 (MTH 320); MTH 3011 (MTH 442); MTH 3251 (MTH 457); MTH 2222 (STT 441)

Web site: http://studyabroad.msu.edu/programs/monashmulti.html

This brochure lists selected programs. You may wish to consider some of the other study abroad programs offered by MSU. Visit http://studyabroad.msu.edu to browse our 250+ programs in more than 60 countries. And if you don’t find the program that meets your needs, come talk to us.

♦️ This is a co-sponsored program. Credit may be awarded for certain courses as regular MSU credit rather than as transfer credit. These courses will be listed on your official MSU transcript and will include the title of the course abroad, the number of credits, and the grade earned. For further details about this policy, visit http://studyabroad.msu.edu/people/students.html.
Study Abroad Programs in Mathematics

MSU PROGRAMS

AUSTRALIA

University of Melbourne

The University of Melbourne enjoys a reputation of being among Australia’s elite institutions. The University is based in Parkville, an inner suburb of Melbourne, and is set on 22 self-contained landscaped hectares. The campus is styled after Oxford University, with large, majestic buildings surrounded by exotic trees and gardens – yet offers many modern necessities through its Student Union – housing a theater, cinema, art shows and other cultural events.

Math courses:
- M 620231 (MTH 234)
- M 620321 (MTH 411)
- M 620351 (MTH 417)
- M 620221 (MTH 425)
- M 620331 (MTH 442)
- M 620311 (MTH 461)
- M 620352 (MTH 481)
- M 620353 (MTH 482)
- M 620201 (STT 441)
- M 620202 (STT 442)

Web site: http://studyabroad.msu.edu/programs/melbournemulti.html

University of New South Wales in Sydney

UNSW was established in 1949 as the New South Wales University of Technology, which reflects its origin as a university emphasizing technology and science. The Kensington campus is a modern, urban campus set on 85 acres that offers many social, cultural and sporting activities. The Student Union houses the student newspaper, a used bookstore, audiovisual services, numerous food concessions and cafés, banks, and shops. The Union also sponsors a wide range of events and festivities and provides facilities for student clubs and societies.

Math courses:
- MATH 2011 (MTH 234)
- MATH 2120 (MTH 235)
- MATH 2501 (MTH 309)
- MATH 3521 (MTH 235)
- MATH 3711 (MTH 411)
- MATH 3520 (MTH 425)
- MATH 3201 (MTH 441)
- MATH 3121 (MTH 442)
- MATH 2801 (STT 441)

Web site: http://studyabroad.msu.edu/programs/unswmulti.html

CHINA

City University of Hong Kong

City University offers the opportunity to study in a dynamic modern metropolis steeped in unique blends of Eastern and Western traditions - Hong Kong. Consistently ranked as one of the top universities in China, City University offers coursework in a wide range of disciplines where you will study alongside a diverse student body representing over 25 nations. All courses are conducted in English, and Hong Kong provides an excellent hub for exploring mainland China and the entire Asian continent.

Math courses:
- MA 2502 (MTH 234)
- MA 2503 (MTH 309)
- MA 2506 (STT 351)
- MA 2506 (STT 430)
- MA 3511 (MTH 235)
- MA 3512 (MTH 442)
- MA 3513 (MTH 451)
- MA 3514 (MTH 452)
- MA 3517 (MTH 425)
- MA 3518 (STT 422)
- MA 4528 (MTH 490)
- MA 4529 (MTH 457)

Web site: http://studyabroad.msu.edu/programs/chinacuhk.html

\[\text{This is a co-sponsored program. Credit may be awarded for certain courses as regular MSU credit rather than as transfer credit. These courses will be listed on your official MSU transcript and will include the title of the course abroad, the number of credits, and the grade earned. For further details about this policy, visit http://studyabroad.msu.edu/people/students.html.}\]
Study Abroad Programs in Mathematics

MSU PROGRAMS

MEXICO

Tec de Monterrey ♦

The Tec de Monterrey, better known as simply the Tec, is more than just one of the most respected universities in Latin America, it is a network of Mexican university campuses offering world-class education. MSU students can choose from two of the Tec’s outstanding campuses, take courses that satisfy a wide variety of requirements and immerse themselves completely in Mexican life and culture. In addition, students can work toward the certificate of specialization in Latin American and Caribbean Studies. Both campuses offer some courses in English as well as Spanish and have excellent services and facilities for international students.

Math courses:
- MA 00816 (MTH 133)
- MA 00817 (MTH 234)
- MA 00841 (MTH 235)
- MA 00843 (MTH 314)
- MA 00835 (STT 430 or STT 351)

Web site: http://studyabroad.msu.edu/programs/tec.html

UNITED KINGDOM

Lancaster University ♠

Located on the west coast of England, Lancaster University is known for its excellent teaching and innovative curriculum. It is one of the top universities in the United Kingdom, featuring a wide range of science-based course offerings. Students participating in the program may choose to attend for either a semester or full academic year. With its convenient location, excellent academic ranking, and beautiful environment, Lancaster proves to be an exceptional location for a study abroad program.

Math courses:
- MATH 220 (MTH 309)
- MATH 210 (MTH 320)
- MATH 318 (MTH 340)
- MATH 225 (MTH 411)
- MATH 311 (MTH 421)
- MATH 215 (MTH 425)
- MATH 310 (MTH 461)

Web site: http://studyabroad.msu.edu/programs/uklancastermulti.html

☻ This is a co-sponsored program. Credit may be awarded for certain courses as regular MSU credit rather than as transfer credit. These courses will be listed on your official MSU transcript and will include the title of the course abroad, the number of credits, and the grade earned. For further details about this policy, visit http://studyabroad.msu.edu/people/students.html.
Study Abroad Programs in Mathematics

MSU PROGRAMS

UNITED KINGDOM

Swansea University in Wales ✦

This program gives students the opportunity to study at Swansea University - a university that enjoys not only awards of excellence in a number of fields but also a stunning location! The campus is located on the broad sweep of Swansea Bay surrounded by magnificent parkland and just two miles from the city center on the southern coast of Wales. UWS is a cosmopolitan home for British, European and international students from more than 100 countries, thus providing many opportunities for learning in a culturally diverse and stimulating environment.

Math courses:  
- MAM 211 (MTH 310)
- MAC 221 (MTH 320)
- MAC 223 (MTH 421)
- MAP 322 (MTH 425)
- MAM 321 (MTH 441)
- MAA 301 (MTH 442)
- MAA 251 (MTH 451)
- MAP 363 (MTH 481)

Web site:  
http://studyabroad.msu.edu/programs/ukswansea.html

OPPORTUNITIES FOR TEACHER EDUCATION

AUSTRALIA

Pre-internship Teaching in Australia
Teaching and Teacher Leadership
http://studyabroad.msu.edu/programs/australiateach.html

MALAYSIA

Pre-internship Teaching in Malaysia
http://studyabroad.msu.edu/programs/malaysiapreintern.html

NETHERLANDS, BELGIUM AND GERMANY

Education and Society in Europe
http://studyabroad.msu.edu/programs/netheredsoc.html

SOUTH AFRICA

Education, Society and Learning
Pre-internship Teaching in South Africa
http://studyabroad.msu.edu/programs/saeducsolearning.html
http://studyabroad.msu.edu/programs/saficapreintern.html

This is a co-sponsored program. Credit may be awarded for certain courses as regular MSU credit rather than as transfer credit. These courses will be listed on your official MSU transcript and will include the title of the course abroad, the number of credits, and the grade earned. For further details about this policy, visit http://studyabroad.msu.edu/people/students.html.
Study Abroad Programs in Mathematics

NON-MSU PROGRAMS

Listed below are non-MSU programs for which transfer credit has been approved. To apply to these programs, see the Undergraduate Director in the Math Department and the non-MSU programs adviser in the Office of Study Abroad.

IRELAND

National University of Ireland, Maynooth

Math courses: MT 331 (MTH 320); MT 341 (MTH 310); MT 342 (MTH 411); MT 462/ST 462 (STT 441); MT 464/ST 464 (STT 442) (possible MSU course equivalencies in parentheses)

Web site: http://www.nuim.ie

HUNGARY

St. Olaf College’s Budapest Semesters in Mathematics at Budapest University of Technology and Economics

Math courses: Courses which may potentially be substituted for MSU courses: MTH 411; MTH 417; MTH 421; MTH 425; MTH 461; MTH 482; STT 441

Web site: http://www.stolaf.edu/depts/math/budapest

Some math programs are designed to be more challenging than others. This program is designed for high-achieving undergraduate students interested in challenging studies. Other courses may be approved upon request. See the non-MSU programs adviser in the Office of Study Abroad for more information.

RUSSIA

Independent University of Moscow (IUM)

Math courses: Graduate-level coursework available

Web site: http://ium.mccme.ru/english

Some math programs are designed to be more challenging than others. This program is designed for high-achieving students capable of graduate studies. Arrangements must be made on an individual basis.
## Study Abroad Programs in Mathematics

### LANGUAGE STUDY ABROAD

#### 100- to 200-level

### ARABIC

**Egypt**  
American University in Cairo  
Courses offered: 100- to 200-level Arabic  
Other courses: wide variety of courses available  
Web site: http://studyabroad.msu.edu/programs/egyptucairo.html

### CHINESE

**China**  
Chinese Language and Culture in Tianjin  
Courses offered: 200- to 300-level Chinese  
Web site: http://studyabroad.msu.edu/programs/chinalangculture.html

**China**  
Chinese Language and Culture at Zhejiang University  
Courses offered: 200- to 400-level Chinese  
Web site: http://studyabroad.msu.edu/programs/zhejiangu.html

### FRENCH

**France**  
French and Classical Studies in Southern France  
Courses offered: 100-level French (dependent on sufficient enrollment)  
Other courses: IAH  
Web site: http://studyabroad.msu.edu/programs/frenchclassics.html

**France**  
French Language, Literature and Culture in Tours  
Courses offered: 200- to 400-level French  
Web site: http://studyabroad.msu.edu/programs/francefrench.html

**Senegal**  
French and African Studies in Western Africa  
Courses offered: unspecified French classes - please discuss with your adviser  
Web site: http://studyabroad.msu.edu/programs/senegalfranco.html

### ITALIAN

**Italy**  
Italian Language, Literature and Culture in Florence  
Courses offered: 100- to 300-level Italian  
Other courses: IAH  
Web site: http://studyabroad.msu.edu/programs/italylanglitculture.html

**Italy**  
John Cabot University in Rome  
Courses offered: 100- to 200-level Italian  
Other courses: wide variety of courses available  
Web site: http://studyabroad.msu.edu/programs/itjohncabot.html
Study Abroad Programs in Mathematics

LANGUAGE STUDY ABROAD
100- to 200-level

JAPANESE

Japan
Japan Center for Michigan Universities
Courses offered: 100- to 400-level Japanese
Web site: http://www.isp.msu.edu/jcmu/

KOREAN

South Korea
Yonsei University in Seoul
Courses offered: unspecified Korean classes - please discuss with your adviser
Web site: http://studyabroad.msu.edu/programs/koreamulti.html

PORTUGUESE

Brazil
Intensive Portuguese in Brazil
Courses offered: 100- to 200-level Portuguese
Web site: http://studyabroad.msu.edu/programs/brazilprt.html

SPANISH

Mexico
Intensive First- and Second-year Spanish in Querétaro
Courses offered: 100- to 200-level Spanish
Web site: http://studyabroad.msu.edu/programs/mexintensespan.html

Mexico
Tec de Monterrey
Courses offered: 100- to 400-level Spanish
Other courses: wide variety of courses available
Web site: http://studyabroad.msu.edu/programs/tec.html
Study Abroad Programs in Mathematics

LANGUAGE STUDY ABROAD
300- to 400-level

CHINESE

China
Chinese Language and Culture in Tianjin
Courses offered: 200- to 300-level Chinese
Web site: http://studyabroad.msu.edu/programs/chinalangculture.html

China
Chinese Language and Culture at Zhejiang University
Courses offered: 200- to 400-level Chinese
Web site: http://studyabroad.msu.edu/programs/zhejiangu.html

FRENCH

France
French Language, Literature and Culture in Tours
Courses offered: 200- to 400-level French
Web site: http://studyabroad.msu.edu/programs/francefrench.html

GERMAN

Germany
German Language and Culture in Mayen
Courses offered: 300- to 400-level German
Web site: http://studyabroad.msu.edu/programs/germanlang.html

ITALIAN

Italy
Italian Language, Literature and Culture in Florence
Courses offered: 100- to 300-level Italian
Other courses: IAH
Web site: http://studyabroad.msu.edu/programs/italylanglitculture.html

This brochure lists selected programs. You may also wish to consider some of the other study abroad programs offered by MSU. Visit http://studyabroad.msu.edu to browse our 250+ programs in more than 60 countries. New programs are always in development. You might also consider a non-MSU program. Information is available at http://studyabroad.msu.edu/shared/nonmsu.html. And if you don’t find the program that meets your needs, come talk to us.

Also, please note that courses offered abroad can vary from semester to semester. Please meet with an adviser to ensure that the courses you want are available and that they meet your degree requirements.
Study Abroad Programs in Mathematics

LANGUAGE STUDY ABROAD
300- to 400-level

JAPANESE

Japan
Japan Center for Michigan Universities
Courses offered: 100- to 400-level Japanese
Web site: http://www.isp.msu.edu/jcmu/

SPANISH

Ecuador
Universidad San Francisco de Quito
Courses offered: 300- to 400-level Spanish
Web site: http://studyabroad.msu.edu/programs/ecuadormulti.html

Mexico
Tec de Monterrey
Courses offered: 100- to 400-level Spanish
Other courses: wide variety of courses available
Web site: http://studyabroad.msu.edu/programs/tec.html

Spain
Hispanic Studies in Valencia
Courses offered: 300- to 400-level Spanish
Web site: http://studyabroad.msu.edu/programs/spnvalencia.html

Spain
Spanish Language, Literature and Culture in Santander
Courses offered: 300- to 400-level Spanish
Web site: http://studyabroad.msu.edu/programs/spainsantander.html

SUMMER INTENSIVE LANGUAGE PROGRAMS

It is possible to fulfill your language requirement on an intensive summer language program such as those listed below. See your adviser for more information.

CHINESE - China - Chinese Language and Culture in Tianjin
FRENCH - France - French Language, Literature and Culture in Tours
ITALIAN - Italy - Italian Language, Literature and Culture in Florence
JAPANESE - Japan - Japan Center for Michigan Universities
PORTUGUESE - Brazil - Intensive Portuguese in Brazil
SPANISH - Mexico - Intensive First- and Second-year Spanish in Querétaro
SUGGESTED INTEGRATIVE STUDIES PROGRAMS

Argentina
Globalization, Politics and Social Capital
300-level ISS credit available
http://studyabroad.msu.edu/programs/argglobal.html

Australia
Sustainable Food, Environment and Social Systems
300-level ISS credit available
http://studyabroad.msu.edu/programs/ausfoodenvss.html

France
French and Classical Studies in Southern France
200-level IAH credit available
http://studyabroad.msu.edu/programs/frenchclassics.html

Greece
Social Science in the Eastern Mediterranean
300-level ISS credit available
http://studyabroad.msu.edu/programs/greecesocialsci.html

Mali
Ethics and Development
200-level IAH and 300-level ISS credit available
http://studyabroad.msu.edu/programs/maliethics.html

South Africa
Race Relations
200-level IAH and 300-level ISS credit available
http://studyabroad.msu.edu/programs/safricaracerel.html

For more options, do a program search by subject at http://studyabroad.msu.edu.