Postgraduate study in the U.S.

Adam Durant (Ph.D.)
Michigan Tech
University of Bristol
ajduran@mtu.edu
Overview

• Life as a student in the US
• Why study in the U.S. as a postgrad?
• Unique Features of the U.S. System
• Funding your studies
• Application process
Why study in the U.S. as a postgrad?
Why study in the U.S. as a postgrad?

• Worldwide recognition of U.S. degrees
• Wide range of educational programs
• U.S. universities spend $20,000 per year on each student compared to $7,225 in Britain, $11,572 in Australia, $12,217 in Canada
• Outstanding facilities, libraries and laboratories
• Diverse student body
• Opportunity to spend an additional year in the U.S. getting valuable, relevant work experience

(source: www.lindentours.com)
Why study in the U.S. as a postgrad?

- Flexibility in degree study program
- Opportunity to take classes beyond bachelor degree
- More flexible schedule to graduation
- Better funding (on average)
- Chance to define your own research
- Opportunity to teach and write proposals
- Internship opportunities
Why study in the U.S. as a postgrad?

...and because it will be fun!!
Life as a student in the U.S.
Michigan Tech
Create the Future . . .
Change the World.

Graduate School
www.gradschool.mtu.edu

http://www.youtube.com/watch?v=iujvgpzYckk
Houghton, Michigan, USA in the Upper Peninsula, Michigan

Population of Houghton is about 14000
National Geographic Adventure Magazine ranked our setting as one of America’s top 10 Summer Sports Meccas
Community

• Houghton was recently included in the book *The 100 Best Small Towns in America*

• *Men’s Journal* recently ranked Houghton as one of the top 10 “healthiest, safest, and most fun places to live”
Study and Research
Picture Yourself...

- Total University Enrollment - 6,550
- Graduate Enrollment – 916
- Graduate Degree Programs in 34 Fields
- Top 25 ranking nationally in engineering, according to the American Society for Engineering Educations
Graduate School at Michigan Tech

COLLEGES & SCHOOLS
College of Engineering
College of Sciences and Arts
School of Business and Economics
School of Forest Resources and Environmental Science
School of Technology

ENROLLMENT (FALL 2006)
Undergraduate 5,377
Graduate (nondegree) 30
Graduate (master's) 437
Graduate (doctoral) 423

FACULTY (FALL 2006)
Tenured/Tenure-track 305
Non-tenure-track 89
Research 18

DEGREES CONFERRED (2005-2006)
Bachelor's 1,008
Master's 203
Doctoral 41

ALUMNI/AE NETWORK
Graduate Alumni 2,512
Total Tech Alumni 70,491
Geographic distribution 50 states and 100 foreign countries

GRADUATE TUITION
Graduate Tuition $500/credit

Michigan Technological University is a premier research university of international stature, delivering education, new knowledge, and innovation to meet the needs of our technological world. Michigan Tech graduates have the skills and knowledge that allow them to create the future and change the world.

Graduate Programs
Applied Ecology—MS
Applied Natural Resource Economics—MS
Applied Science Education—MS
Atmospheric Sciences—PhD
Biological Sciences—MS, PhD
Biomedical Engineering—PhD
Chemical Engineering—MS, PhD
Chemistry—MS, PhD
Civil Engineering—MEng, MS, PhD
Computational Science & Engineering—PhD in Engineering
Computer Science—MS, PhD
Electrical Engineering—MS, PhD
Engineering—MEng, PhD
Engineering Mechanics—MS
Engineering Physics—PhD
Environmental Engineering—MEng, MS; PhD in Engineering
Environmental Engineering Science—MS
Environmental Policy—MS
Forest Ecology & Management—MS
Forest Molecular Genetics & Biotechnology—MS, PhD
Forest Science—PhD
Forestry—MEng, MS
Geological Engineering—MS, PhD
Geology—MS, PhD
Geophysics—MS
Industrial Archaeology—MS
Industrial Heritage & Archaeology—PhD
Master of Business Administration—MBA
Materials Science and Engineering—MS, PhD
Mathematical Sciences—MS, PhD
Mechanical Engineering—MS
Mechanical Engineering—Engineering Mechanics—PhD
Mining Engineering—MS, PhD
Physics—MS, PhD
Rhetoric & Technical Communication—MS, PhD
Sustainability (graduate certificate)

Research Centers/Institutes
Biotechnology Research Center (BRC)
Center for Integrated Systems in Sensing, Imaging, and Communication (CISiC)
Center for Technological Innovation, Leadership and Entrepreneurship (CenTLE)
Computational Science and Engineering Research Institute (CSERI)
Ecosystem Science Center (ESC)
National Institute for Climatic Change Research (NICCR)
Institute for Engineering Materials (IEM)
Institute of Materials Processing (IMP)
Isle Royale Institute (IR)
Keweenaw Research Center (KRC)
Michigan Tech Transportation Institute (MTTI)
University Transportation Center for Materials in Sustainable Transportation Infrastructure (MSTI)
Multi-Scale Technologies Institute (MUSTI)
Power & Energy Research Center (PERC)
Remote Sensing Institute (RSI)
Lake Superior Ecosystem Research Center (LaSER)
Sustainable Futures Institute (SFI)
Center for Environmentally Benign Functional Materials (CEBFM)
Michigan Tech Center for Water and Society (MTCWS)
Product and Process Architecture Alignment Consortium (P2AAC Consortium (P2AAC)

www.gradschool.mtu.edu

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Costs

• Each university sets its own tuition fees

• Tuition for one academic year (nine months) at state universities ranges from around $4,000 - $13,000, and for private universities from around $8,000 - $35,000

• Living costs vary tremendously, e.g., between $7,000 and $20,000 per academic year

• There may be financial aid available
Types of Graduate Assistantships

• Graduate Research Assistant (GRAs)
  – work on research for a faculty member
  – requires set hours per week

• Graduate Laboratory Assistants (GLAs)
  – technical support for the lab’s activities
  – providing instruction for students in the lab section of a lecture class

• Graduate Teaching Assistants (GTAs)
  – team-teaching with other lab assistants
  – lecturing (better pay)
Michigan Tech RA (Fall 2007)

♦ Ph.D.: minimum of $16,314/year + tuition/fees

♦ M.S.: minimum of $14,052/year + tuition/fees
Funds Involved

• Graduate assistantships can involve at least two basic types of funding:
  1. Tuition reductions/waivers
  2. Stipends

• Assistantships can involve:
  (1) tuition reductions/waivers with no stipend
  (2) stipends with no reduction/waiver of tuition
  (3) stipends along with reduction/waiving of tuition
NSF-Funded Student Workshops

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Internships

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Conferences

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Teaching Assistant / Instructor

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Course Coordination

Ehaz Consortium
6 North American Universities
Degree Schedule to Defense
Graduation

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Unique Features of the U.S. System
Accreditation

• Accreditation is the system that ensures university standards in the US

• Regional accreditation is the type of university accreditation recognised by all employers and universities in the US and UK

• Departments can also be accredited

• Many British educational institutions and professional bodies may not consider graduates of a US institution that is not regionally accredited
College and University

• A degree from a college is equivalent to a degree from a university

• Colleges tend to have smaller student bodies, focus on undergraduate education and hire professors for their teaching abilities

• Universities tend to be larger, offer undergraduate and graduate programs and hire faculty to teach and conduct research

• HINT: Don't let the name "college" make you think your institution is less reputable or qualified than a "university"
Public and Private Universities

• Private institutions
  – Funding comes from tuition, grants for research, and voluntary contributions
    E.g., Harvard, Yale, Princeton

• Public institutions
  – State-supported (in part) tend to be less expensive
  – Added out-of-state fees to students from other states and countries
Credit System

• Progress toward graduation in the U.S. is measured through the accumulation of credits, rather than in years as in many other countries.

• Each course/class you successfully complete is worth a certain number of credits and a determined number of credits is required for graduation.

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Ability to transfer universities

- Credit system allows students to build up transferable credit for coursework and research completed
- Possible to move institutions part way through a degree
- However, specific universities determine how much credit can be transferred
Ability to change major fields of study

• It is possible to change majors after enrolment

• In the case of very popular or selective programs, another application may be required, but this is unusual

• May add time to graduation

• Allows students to move into the program best suited to their needs and abilities
Funding your studies
Financial Aid

• Scholarships or fellowships – can cover tuition and fees, living costs

• Teaching/research assistantships – can cover the above costs, and you are required to work within the department for up to 20 hours per week

• Loans – from a U.S. lender may require a US citizen to co-sign the loan

• Confirm with universities that funding is available to international students.

• Note that financial aid deadlines can be earlier than the university application deadlines

• Non-university awards may be available from bi-national exchange programmes, foundations, corporations, governments, or individuals. Such awards are competitive and may cover full costs
Application Process
Eligibility

• 2:2 degree or higher, but a 2:1 minimum may be required to be eligible for financial aid

• Applicants with professional qualifications are considered on an individual basis

• Holders of diplomas such as an HND may be required to take 1-2 years of undergraduate study before being admitted to a graduate programme
Eligibility

• A minimum Grade Point Average (GPA) may be one of the eligibility criteria

• Letter grades A, B, C and D achieved during your degree course are given grade points of 4, 3, 2 and 1; GPA is the average of all grade points

• Universities that ask for a minimum 3.5 GPA will usually expect a minimum 2:1 UK qualification; those that ask for a minimum 3.0 GPA will expect a minimum 2:2
Application Process

• Standardised tests

• Application form
  – email, write to, fax or phone the US university’s Director of Graduate Admissions
  – forms and information may also be online
  – contact the department for information on courses and faculty

• Transcripts
  – original transcript, on letter-headed paper and signed by your university’s registrar, for each
    US university or funding body application
  – US universities will often ask for these transcripts to be provided in sealed envelopes, with a
    stamp and signature across the seal; A key to the grading system should be included

• References
  – the university or funding body may also request that your references are provided in sealed
    envelopes with the referee’s signature across the seal

• Non-refundable application fee
  – $30 to $100 per school and payment is often required in US$
Standardised Tests

• GRE (Graduate Record Exam): generally required for applicants to humanities, arts & sciences courses. There are two types of test: the General Test, and Subject Tests. Find out which are required.

• GMAT (Graduate Management Admission Test): generally required for applicants to management courses. Please refer to our MBA handout for further GMAT information.

• TOEFL (Test of English as a Foreign Language): generally required for applicants who have not studied at an English-speaking university.

• Ensure that your scores reach the universities before their application deadlines.

• Allow a minimum of four weeks from the test date for the scores to reach your chosen institution(s).
Graduate Record Examinations

• General Test
  – Verbal reasoning, quantitative reasoning, and critical thinking and analytical writing skills
  – Skills acquired over a long period of time

• Subject Tests (paper-based; requires planning!)
  – Undergraduate achievement in 8 specific fields of study
  – Subject Tests are intended for students who have majored in or have extensive background in a specific area
Who Takes It and Why?

• Prospective graduate applicants take the General Test

• GRE test scores are used by admissions or fellowship panels to supplement undergraduate records and other qualifications for graduate study

• The scores provide common measures for comparing the qualifications of applicants and aid in evaluating grades and recommendations
Where can you take the test?

• LONDON (PERMANENT CENTER)
  Test Center Number: 8017
  TESTS OFFERED: GRE, TOEFL

• To Register:
  Region 12 - EUROPE/NEW INDEPENDENT STATES
  Call: 31 320 239 540 (The Netherlands)
  FAX: 31 320 239 541
18 Months before beginning study

RESEARCH GRADUATE DEGREES

• Choose Degree level

  – Academic Masters degrees
    • generally completed in two academic years, and often include a thesis option

  – Professional Masters degrees
    • lead to a particular profession
    • usually require 36-48 credits without a thesis option

  – Doctoral degrees
    • >3 years beyond bachelors, typically 5-6 years
    • teaching or research assignments
    • 2 years of coursework
    • oral and written qualifying exams (preliminary exams) to attain doctoral candidacy and embarking on dissertation research
    • A dissertation (300-400 typed pages) of publishable quality work is then required, followed by an oral exam or 'defense' to complete the degree
13-15 Months before beginning study

**CHOOSE YOUR COURSES**

- Identify 3-6 universities to apply to
- Identify courses in your subject area
- Check *Peterson’s Guide to Graduate Programs* for admissions statistics, minimum test criteria
- Research costs and financial aid
12 Months before beginning study
FUNDING APPLICATION PACKS

• Most common source of funding for postgraduate study is the department in which you plan to study

• Research non-university funding

• Put together application: forms, references, statement of purpose, standardised tests
10-12 Months before beginning study

COMPILE APPLICATION PACKS

• Standardised tests

• Application form
  – Email, write to, fax or phone the US university’s Director of Graduate Admissions
  – Forms and information may also be online
  – contact the department for information on courses and faculty

• Transcripts
  – original transcript, on letter-headed paper and signed by your university’s registrar, for each US university or funding body application
  – US universities will often ask for these transcripts to be provided in sealed envelopes, with a stamp and signature across the seal; A key to the grading system should be included

• References
  – The university or funding body may also request that your references are provided in sealed envelopes with the referee’s signature across the seal

• Non-refundable application fee
  – $30 to $100 per school and payment is often required in US$
4-10 Months before beginning study

DEADLINES!!

• Funding applications

• University applications
  – January start and rolling admissions
2 Months before beginning study

ACCEPTANCES / REJECTIONS

• Visas
  – Most international students enter the US on a non-immigrant student visa
  – Once you accept an offer from a US university, the university will require proof of funds for the first year before sending you either an I-20 or a DS-2019 government document
  – You can then apply for your visa - either an F-1 or a J-1, respectively
  – All applicants for a student or exchange visitor visa are required to complete the visa application forms DS-156, and DS-158
  – If a member of your family travels with you, separate forms must be filled out for each family member.
  – All males aged between 16 and 45 have to complete the additional DS-157 form.

• Forms may be downloaded from the US Embassy’s website: www.usembassy.org.uk
Useful links

• Educational Testing Service
  http://www.ets.org

• For more information, see:
  www.fulbright.co.uk/eas/studyus/resources/pg_info.html
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• Some material sourced from:

www.lindentours.com

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Extras
GRE General Test (3-4 hours)

• Verbal Reasoning — The skills measured include the test taker's ability to:
  – analyze and evaluate written material and synthesize information obtained from it
  – analyze relationships among component parts of sentences
  – recognize relationships between words and concepts

• Quantitative Reasoning — The skills measured include the test taker's ability to:
  – understand basic concepts of arithmetic, algebra, geometry, and data analysis
  – reason quantitatively
  – solve problems in a quantitative setting

• Analytical Writing — The skills measured include the test taker's ability to:
  – articulate complex ideas clearly and effectively
  – examine claims and accompanying evidence
  – support ideas with relevant reasons and examples
  – sustain a well-focused, coherent discussion
  – control the elements of standard written English

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GRE Subject Tests

- The GRE Subject Tests gauge undergraduate achievement in the eight disciplines listed below

- Each Subject Test is intended for students who have majored in or have extensive background in a specific area:
  - Biochemistry, Cell and Molecular Biology
  - Biology
  - Chemistry
  - Computer Science
  - Literature in English
  - Mathematics
  - Physics
  - Psychology