

# SYSTEMS ENGINEERING

MASTERS of ENGINEERING with a SPECIALIZATION in  
SYSTEMS ENGINEERING



Systems Engineering is an interdisciplinary approach and means to enable the realization of successful systems.

The Thomas J. Watson School of Engineering and Applied Science has expanded its offerings in the Systems Engineering area. The current degrees in the systems area will be expanded to add a Masters of Engineering with a Specialization in Systems Engineering. While this degree is intended for those with a previous degree in engineering there are alternatives for those without the engineering degree.



Degree Structure – Requires ten courses plus a Masters Project (1-3 credits):

- Four core courses
- Three department courses
- Three technical electives

### Core Courses

SSIE 505 - Applied Probability and Statistics  
SSIE 506 - Systems Problem Solving  
SSIE 520 - Modeling and Simulation  
SSIE 525 - Principles of Systems Engineering

### Departmental Courses

Intended to be selected from the graduate course offerings in the respective departments. The idea is to allow the student to expand upon the disciplinary knowledge he or she gained in their undergraduate efforts.

### Technical Electives

These three courses must be selected from a list of approved courses that include courses taught by specific industries at their facility (approval must be obtained).

### Masters Project

Project must be approved by Advisor.  
Must include elements of a model based systems engineering effort and the organization of the project within the entire project (team project preferred).

**TO APPLY:** Contact Dr. Bob Emerson, Graduate Coordinator in Systems Engineering, [remerson@binghamton.edu](mailto:remerson@binghamton.edu), and apply online through the Binghamton University Graduate School website at <http://gradschool.binghamton.edu/ps/gradapp.asp>

In addition to completing the on-line application, you will also need to provide the Graduate School specified supporting documentation and your non-refundable application fee of \$60. Supporting documentation includes:

- Application Fee Payment Form
- Transcripts from all previous institutions
- Letters of recommendation
- Your personal statement
- TOEFL scores (if applicable)
- GRE scores



Current tuition and fee rates can be found at <http://studentaccounts.binghamton.edu/WebRateDocument.pdf>

For questions regarding student bills, please contact:

The Office of Student Accounts

[stuacct@binghamton.edu](mailto:stuacct@binghamton.edu)

Tel:# 607-777-2702

Fax:# 607-777-2053

Office Hours: 9:30am - 4:00pm

The BU Brain (<http://bubrain.binghamton.edu/>) is the University portal that provides students access to their Registration, Financial Aid and Student Accounts.

*EngiNet™ allows students to take courses without ever attending classes on campus. This program enables those with a Bachelor of Science degree to earn a Master of Engineering degree in computer science, electrical engineering, mechanical engineering, computer engineering, industrial and systems engineering, or systems science. To date, over 200 students have graduated from the EngiNet™ program.*

*Course lectures are recorded live on-campus, digitally encoded and mastered for the Internet. The distance learning student can view weekly lectures on the Internet whenever most convenient.*

**EngiNet is ranked 10th out of the top 25 on-line engineering degree programs listed in the GetEducated magazine in July 2008 edition.**

For additional information or details please contact:

EngiNet™

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Binghamton University

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ENGINE™ – GRADUATE  
DISTANCE LEARNING  
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