

ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Area Minor in Computational Science

Name: _____ ID # _____ Box # _____

Major: _____ Advisor: _____ Graduation Year _____

The above-named student will satisfy the requirements for an area minor in Computational Science upon the successful completion of the five basic courses MA111, MA112, MA113, MA221, MA222, and the five courses indicated below. Pick one of the first two lines. Ten courses altogether, most majors require at least five of the ten courses.

Course Number	Course Title	Quarter & Year Completed	Grade
<u>CSSE 120</u>	_____	_____	_____
or Department equivalent (4hours) (discus with Comp Sci advisor, cross out CSSE 120 above)			
_____	_____	_____	_____
<u>MA332</u>	_____	_____	_____
<u>MA342</u>	_____	_____	_____
Elective List A (see back of form) 4 hours			
_____	_____	_____	_____
Elective List B (see back of form) 4 hours			
_____	_____	_____	_____

Signatures

Student Date

Academic Advisor Date

Computational Science Area Minor Advisor

Requirements Completed _____
(Quarter/Year)

Registrar's Office Date

List A: Applied Computational Science courses

- [MA323](#) - Geometric Modeling
- [MA439](#) - Mathematical Methods of Image Processing
- [MA444](#) - Deterministic Models in Operations Research
- CSSE351 - Computer Graphics
- CSSE451 - Advanced Computer Graphics
- CSSE413 - Artificial Intelligence
- CSSE453 - Topics in Artificial Intelligence
- CSSE461 - Computer Vision
- CSSE463 - Image Recognition
- CE522 - Advanced Finite Element Analysis
- ME422- Finite Elements for Engineering Applications
- ME427 - Introduction to Computational Fluid Dynamics
- ME511 - Numerical Methods for Dynamic Systems Analysis
- ME522 - Advanced Finite Elements Analysis
- 4XX - Introduction to MEMS: Fabrication and Applications
- 5XX - Advanced Topics in MEMS
- CHE521 - Advanced Chemical Engineering Computation
- BE510 - Biomedical Signal and Image Processing
- EMGT526 - Technology Forecasting
- [MA534/EMGT534](#) - Management. Science
- ECE420 - Nonlinear Control Systems
- ECE480//PH437 - Introduction to Image Processing
- ECE582/PH537 - Advanced Image Processing
- ECE483 - DSP System Design

List B: Additional Computational Science courses

- [MA/CSSE335](#) - Introduction to Parallel Computing
- [MA433](#) - Numerical Analysis
- [MA434](#) - Topics in Numerical Analysis
- [MA348](#) - Continuous Optimization
- [MA446](#) - Combinatorial Optimization
- CSSE304 - Programming Language Concepts
- CSSE371 - Software Requirements and Specification

Electives not on list A or B may be substituted with other courses with the approval of the area minor advisor.

The list is updated from time to time – check with Comp Sci adviser.