The Computer Science Program
Seton Hall University
Spring 2012
WHY?
Why major in Computer Science?

• More computing jobs in the US than qualified people to fill them
  • IT employment up 17% from 1999 to 2004
  • Jobs have continued to increase during the recession!
• Greatest potential for new jobs—up 22.2% from 2008-2018
  • System programmers +30.4%
  • Application programmers +34.0%
• http://www.bls.gov/oco/ocos303.htm
• http://computingcareers.acm.org/
Why major in Computer Science?

• Computing
  • Is part of our daily lives
  • Used to solve complex & important problems
    • Transportation, communication, medicine, …

• Key to national competitiveness and societal progress
  • [http://www.acm.org/public-policy](http://www.acm.org/public-policy)
Why major in Computer Science?

• Computing jobs
  • Among the highest paid
    • Software architects—median salary $117K—2011
  • Have very highest job satisfaction
    • Software developers—4th highest profession
    • Very low job stress overall

• For a supporting but different perspective
  • http://www.sixwise.com/newsletters/05/12/14/the-10-best-careers----by-starting-salary-best-benefits-job-satisfaction--amp-more.htm
Why major in Computer Science?

- Computing careers are exciting
  - Experts often work in diverse teams
    - With chemists to develop & study new drugs
    - With engineers who design new airplanes
    - With financial experts to study markets
    - And many more

- Intellectual challenge + practical applications

- Provides a foundation of knowledge and problem solving and a competitive edge
  - Even if you pursue a career in another area
Why major in Computer Science?

- Computer Science Opens Doors
  - Positions to fit your own working style
    - Software engineering is a group activity
    - But opportunities for remote positions and telecommuting
  - Business graduate schools and law schools prefer students who have had from STEM majors
    - Law school offers opportunities in patent law, intellectual property law, security and privacy
  - Big shortfall in candidates for technical project management
    - Needs good CS and business knowledge + people skills
Jobs! Jobs! Jobs!

Our graduates

- Have little trouble finding co-ops, internships or part-time jobs
- Rarely have difficulty in finding full-time, relevant jobs on graduation
  - 100% employment for SHU graduates!
- Have minimal trouble changing jobs
- Often get paid assistantships (tuition plus stipend) for full-time graduate study
- Typically have part-time graduate study paid by employers
Jobs! Jobs! Jobs!

Firms that take our students as interns, or as part-time employees, or as full-time employees after graduation, often call us asking for more prospective hires.
Why Seton Hall?

- Small classes with full-time faculty
- Faculty with international research presence and reputation
- Faculty readily available to students
- Well-rounded major program and general education requirements
- Strong connections to other departments
- Opportunities for undergraduate research
SHU STEM Scholarships

- **Clare Boothe Luce Scholarship**
  - Competitive full scholarship—tuition, fees, room & board, and books—for qualified women students in STEM majors

- **Mulligan Scholarship**
  - Competitive partial tuition scholarship for junior/senior students in STEM majors

STEM = science, technology, engineering, mathematics
Where can I go?
(Some possibilities)

- Programming
- Program design, software engineering and databases
- Game design and graphics
- **Bioinformatics**, visualization & scientific computing
- **Information and management science**
- **Technical management**
- Business careers
- Teaching in private school
Where can I go?
(Some possibilities)

Graduate degrees

- Computer science, information science, networking, telecommunications, and interdisciplinary programs
- Bioinformatics and science informatics
- Information/management science & operations research
- Software engineering & object-oriented development
- Technical management
- Business
- Cognitive science
What’s available while at SHU?

- On-campus positions
  - Tutoring
  - Computing Services
  - Teaching and Learning Technology Center
  - Supporting college & department efforts

- Paid co-ops and internships, part-time jobs
  - Career Center
  - Department resources

- Undergraduate research
WHAT?
Content of the Program

- Six freshman/sophomore CS courses
- Three required upper-level courses
- One upper-level sequence
- Three CS electives
- Four mathematics courses
- Four additional related courses
- *Multiple team design & programming experiences*
Freshman/Sophomore Courses

Programming and design as a discipline

- Design of Programs I & II
  - Using video games
- Design of Classes I & II
- Computer Systems & Assembly Pgmng
- Data Structures & Algorithm Analysis
Required Junior/Senior Courses

Three building blocks supporting software

- Operating Systems
- Programming Languages
- Automata & Formal Languages
One sequence

Principles for designing good products

- Software Engineering I & II
- Computer Graphics Modeling & Visualization
Three electives

_Pursue your interests_

<table>
<thead>
<tr>
<th>Networking</th>
<th>Computer Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Graphics</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>Compilers</td>
<td>Databases</td>
</tr>
<tr>
<td>Numerical Analysis</td>
<td>Algorithms</td>
</tr>
</tbody>
</table>
Three electives

*Become involved in the field*

- Computer Science Co-op
- Senior Project
- Honors Project I & II

(At most one course in each group)
Four Mathematics Courses

The foundations

- Calculus I
- Intro to Discrete Math
- Intro to Probability and Statistics
- Linear Algebra
Required or Recommended Related Courses

*Enriching the context and expanding opportunities*

- Symbolic Logic
- Intro to Economics
- Lab Science sequence
  - Required for BS core curriculum
Honors in Computer Science

*Distinguish yourself*

- Take both sequences
- Take Honors Project I & II
- Have a 3.3 average in major courses
- For transfer students
  - Take 24 CS & Math credits at Seton Hall
Applied Modern Computing

*Develop expertise*

Program is supplemented by hands-on courses

- Robotics
- Mobile device programming
- UNIX Operating System
- Video Game Programming
- ...
Other Opportunities

What if I’m not interested in being a CS major?

- Minor in Computer Science

How can I enhance my major?

- Within the department
  - Minor in Mathematics
  - Minor in Applied Scientific Mathematics
  - Certificate in Data Visualization & Analysis

- Other programs on campus
  - Certificate in Business
  - Computer Graphics or Digital Media & Design
  - Minor in Asian Studies
Desired Background

- In addition to Admissions Requirements

**Mathematics**
- 4 years of high-school math including Precalculus or Algebra & Trigonometry
- Calculus and/or Statistics is desirable but not needed
- A good Precalculus course is better than a mediocre Calculus course

**Computer Science**
- Programming experience desirable but not needed

**Good verbal & analytical skills (English or other)**
WHEN?
## Sample Program
### Freshman Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE 1001 University Life</td>
<td>1</td>
<td>COST 1500 Oral Rhetoric (B)</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 1201 Core English</td>
<td>3</td>
<td>ENGL 1202 Core English II</td>
<td>3</td>
</tr>
<tr>
<td>CORE 1101 Transformation</td>
<td>3</td>
<td>Social Sci A&amp;S BS Core (F)</td>
<td>3</td>
</tr>
<tr>
<td>CSAS 1114 Design of Programs I</td>
<td>3</td>
<td>CSAS 1115 Design of Programs II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1511 Honors Calculus I</td>
<td>4</td>
<td>MATH 1611 Intro to Discrete Math</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1204 Symbolic Logic (C)</td>
<td>3</td>
<td>Humanities A&amp;S BS Core (D)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits | 17 |

| Total Credits | 17 |
## Sample Program
### Sophomore Year

<table>
<thead>
<tr>
<th>CORE</th>
<th>2101</th>
<th>Christianity &amp; Culture</th>
<th>3</th>
<th>Credits</th>
<th>ECON</th>
<th>1411</th>
<th>Intro to Economics (F)</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Science</td>
<td>A&amp;S BS Core (A)</td>
<td>4</td>
<td>Lab Science</td>
<td>A&amp;S BS Core (A)</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSAS</td>
<td>2123</td>
<td>Design of Classes I</td>
<td>3</td>
<td>CSAS</td>
<td>2124</td>
<td>Design of Classes II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSAS</td>
<td>2125</td>
<td>Computer Systems</td>
<td>3</td>
<td>CSAS</td>
<td>2126</td>
<td>Data Structures</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH</td>
<td>2111</td>
<td>Statistics for Science</td>
<td>4</td>
<td>MATH</td>
<td>2813</td>
<td>Linear Algebra</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>17</strong></td>
<td></td>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>17</strong></td>
<td></td>
<td></td>
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</table>
# Sample Program

## Junior Year

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course Type</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE</td>
<td>3101</td>
<td>Engaging the World</td>
<td>3</td>
<td>Religious Studies</td>
<td>A&amp;S BS Core (C)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>A&amp;S BS Core (E)</td>
<td>3</td>
<td></td>
<td>Language</td>
<td>A&amp;S BS Core (E)</td>
<td>3</td>
<td></td>
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<tr>
<td>CSAS</td>
<td>3111</td>
<td>Operating Systems</td>
<td>3</td>
<td>CSAS</td>
<td>Elective</td>
<td></td>
<td></td>
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<tr>
<td>CSAS</td>
<td>4117</td>
<td>Software Engineering I</td>
<td>3</td>
<td>CSAS</td>
<td>4118</td>
<td>Software Engineering II</td>
<td>3</td>
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<tr>
<td>Free Elective</td>
<td>free choice</td>
<td>3</td>
<td></td>
<td>Free Elective</td>
<td>free choice</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>15</td>
<td>Total Credits</td>
<td></td>
<td>Total Credits</td>
<td>15</td>
<td>15</td>
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</tr>
</tbody>
</table>
## Sample Program

### Senior Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CSAS 3113</strong></td>
<td>Programming Langs</td>
</tr>
<tr>
<td>3</td>
<td>CSAS 4112 Automata</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>CSAS</strong></td>
<td>Elective</td>
</tr>
<tr>
<td>3</td>
<td>CSAS Elective</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Free Elective</strong></td>
<td>free choice</td>
</tr>
<tr>
<td>3</td>
<td>Humanities</td>
</tr>
<tr>
<td>3</td>
<td>A&amp;S BS Core (D)</td>
</tr>
<tr>
<td><strong>Free Elective</strong></td>
<td>free choice</td>
</tr>
<tr>
<td>3</td>
<td>Free Elective</td>
</tr>
<tr>
<td>3</td>
<td>free choice</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td>Total Credits</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>
What’s up with the colors?

- **Red** Major requirements
- **Green** University Core requirements
  - Multiple alternative courses for CORE 3101
- **Blue** BS core requirements
  - Core area identified (B)-(F)
  - Eligible courses listed in catalog
  - Not including Math/Computing in (A)
- **Black** Free electives
- Actual schedules may vary
WHO?
Department CS Faculty

- Dr. Thomas Marlowe
  - Coordinator, Computer Science Program
  - Academic Advisor for CS majors

- Dr. Marco Morazán
  - Graduate School Advisor for CS majors

- Dr. Manfred Minimair
  - Co-Director, Data Analysis and Visualization
  - Co-op Advisor for CS majors

- Dr. Bert Wachsmuth
  - Chair, Senate Committee on Instruction Technology
Thomas Marlowe

Teaching interests
- Software engineering, databases, statistics

Research interests
- Software engineering, programming languages, collaboration, biophysical models

Recent publication
Marco T. Morazán

Teaching interests

- Programming for beginners, program design, programming languages, functional & object-oriented programming

Research Interests

- Implementation & semantics of programming languages, computer science education

Recent Publication

Teaching interests
- Data Visualization and Analysis, symbolic computation, applications

Research Interests
- Creating and applying data visualizations, scientific computation arising in engineering and science

Recent Publication
Bert Wachsmuth

Teaching Interests
- Mobile devices, robotics, networking, analysis

Research Interests
- Technology and mathematical software in education, real and complex analysis

Recent Publication
Some of our graduates

Click on a picture to see more
Student Graduate Education
(Sample)

- PhD in Computer Science
- JD in Law
- PhD candidate in Cognitive Science
- Master’s in Business Administration
- Many MS degrees in Computer Science, Information Technology, and Technical Management
Undergraduate Research

Publication Venues

- Software and apps published on-line
- Conference and journal publication
- Publication and presentation at student conferences

Students

- Rositsa Abrasheva  Brian Borowski
- Chris Dutra  Dorian Ellerbe
- Frank Gonnello  Min Hur
- Mike Malenkov  Basia Mucha
- Sarah Smith
Mentoring Program

- New program pairs majors with alumni
  - Many enthusiastic alumni volunteers
  - Students can contact the mentor
    - Usually via email, IM, or social media
  - Mentors can help with
    - Difficulties, opportunities, prospects
    - What to look for in a job, internship or graduate program
    - Assistance with resumes, interview issues, …
  - Mentors not required to help beyond advice
Advisory Board

Computer Science Advisory Board

- Being formed Spring 2012
- Industry, academic, and alumni representatives
- Advise on content, opportunities, difficulties, activities, publicity, and so on

Alumni Council—including many of the faces in this presentation
WHERE?
South Orange, New Jersey

- Suburb of New York
- Easily accessible from the Parkway, Route 280, and other major roads
- Bus and rail service
- Close to many co-op sites/opportunities
- SOPAC Performing Arts Center

Seton Hall Campus

- Compact, suburban, open spaces
- About 5000 undergraduates
Facilities

- University rated one of the top wired campuses
- Computer science majors receive tablets with needed software
- Department Linux laboratory
- Specialized equipment for courses—robots, Android devices, more
HOW?
Applying to the Program

Seton Hall Admissions and Financial Aid
- http://www.shu.edu/applying/index.cfm

General academic and support questions
- http://www.shu.edu/academics/index.cfm
- http://www.shu.edu/campus-life/index.cfm
- http://www.shu.edu/campus-life/housing.cfm
- http://www.shu.edu/offices/freshman-studies/index.cfm

Feel free to contact the department
- See next slides
Contacting the Department

- **Web Page**
  - [http://www.shu.edu/academics/artsci/math-compsci/index.cfm](http://www.shu.edu/academics/artsci/math-compsci/index.cfm)

- **Email for Inquiries and Information**
  - cs@shu.edu
  - math@shu.edu
Contacting the Department

John T. Saccoman, Chair
  – Email:  john.saccoman2@shu.edu
  – Phone:  (973) 761-9467

Thomas Marlowe, Coordinator
  – Email:  thomas.marlowe@shu.edu
  – Phone:  (973) 761-9784

Melissa Kohlman, Secretary
  – Phone:  (973) 761-9466
Information on selected graduates, 1996-2012
Information on complementary programs
Information on resources

SUPPLEMENTARY INFORMATION
Selected Graduates, 1996—2012

INFORMATION ON GRADUATES
Rositsa Abrasheva (2012)

- BS in Computer Science expected
- Undergraduate research [2+ papers]
- Entering PhD program in Fall 2012

Return to Research Page
Brian Borowski (2001)

- BS in Computer Science, with Honors
  - Research projects
    - Sorting algorithm demo, Boolean expression evaluator, more
    - http://www.brian-borowski.com/Software/
- MS, PhD in Computer Science
  - Stevens Institute of Technology
  - Dissertation: Application of Channel Estimation to Underwater Acoustic Communication
- Instructor, Computer Science Technology, Bergen County Academies
Garett Chang (2011)

- BS in Computer Science
- President, Highstep Technologies Inc.
  http://www.highstep.com/
- Return to Photo Page
Jonathan Curran (2007)

- BS in Computer Science
- Software Engineer
  - Financial Software Systems, Horsham PA

Return to Photo Page
Chris DeSerio (1996)

- BS in Computer Science
- Database Analyst
  Commerce Register, Inc.

*Return to Photo Page*
Latisha Douglas (2001)

- BS in Computer Science
- DBA/Systems Analyst
- Prudential Insurance

Return to Photo Page
Chris Dutra (2008)

- BS in Computer Science, with Honors
- Associate Director, Client Facing Technology — US Mobile Team, UBS AG [SwissBank]
- Undergraduate research

Return to Photo Page  Return to Research Page
Dorian Ellerbe (2011)

- BS in Computer Science
- Software Engineer, m6d (www.m6d.com)
- Undergraduate Research

Return to Photo Page  Return to Research Page
Melissa Famarin (2001)

- BS in Computer Science
- Software Developer, Vonage Inc.

*Return to Photo Page*
Doreen Fromage (1997)

- BS in Computer Science
  - Minor in Mathematics

- Currently part-time consultant (by choice) and mother

- Project Manager, IBM Global Services, 1997-2007

Return to Photo Page
Frank Gonnello (2008)

- BS in Computer Science
- Humanities Honors
  - Senior Thesis: Computer Security & Intellectual Property
- JD/MBA, Seton Hall School of Law, 2012
- IT Director
  - NJ LEEP, Seton Hall School of Law

Return to Photo Page  Return to Grad Degree Page  Return to Research Page
Mike Gualtieri (2001)

- BS in Computer Science
- MS in Computer Science and MBA
  - University of Pittsburgh
- President, M. L. Gualtieri Group LLC
  (consulting business)
- Founder & CEO, Kiddix Computing, Inc.
  (children's software)

http://www.mike-gualtieri.com

Return to Photo Page    Return to Grad Degree Page
Rick Hadsall (1997)

- BS in Computer Science
- Vice-President for IT
- Prudential Insurance

*Return to Photo Page*
Min Hur (2005)

- BS in Computer Science, with Honors
  - Minor in Mathematics

Undergraduate Research
- Min Hur, Distributed Computation of Determinants with NTL and MPI (Proceedings of East Coast Computer Algebra Day 2005, Ashland University, Ashland, Ohio, March 2005, pp. 6-7)

Senior Software Engineer
New York Times
Jay Jasinski (1997)

- BS in Computer Science
- IT Audit Manager
- Prudential Insurance

http://www.linkedin.com/profile/view?id=6972556&trk=eml-plat-b-pic-yir_1

Return to Photo Page
Dennis Kaelin (2004)

- BS in Computer Science
- MBA in Finance, 2010
  - Montclair State University
- SQL Database Developer
- GFK Healthcare
- Senior Director at Staffordton Consulting Group
  - www.staffordtongroup.com

Return to Photo Page
Tom Kucharski (1997)

- BS in Computer Science, with Honors
- Director of IT

Pacific Coast Steel

(soon to be Gerdau Reinforcing Steel)

- www.pcsgp.com
- Return to Photo Page
Paul Ladny (2003)

- BS in Computer Science
- MS in Psychology, Seton Hall University, 2007
- PhD candidate in Cognitive Science, Mississippi State University

Return to Grad Degree Page
Steve LaVista (1998)

- BS in Computer Science
- Owner, Doctrino Systems LLC
  - [http://www.doctrino.com/](http://www.doctrino.com/)
- Marketing & Technology Director
  IRA Financial Group
  - [http://www.irafinancialgroup.com/](http://www.irafinancialgroup.com/)

[Return to Photo Page](#)
Peter Laurina (2003)

- BS in Computer Science
- Software Engineer, ClickBank
  - http://clickbank.com
- Return to Photo Page
Mike LoSapio (2005)

- BS in Computer Science
- Technical Team Lead — eSystems and High Performance Computing
- New York University

Return to Photo Page
Julio Macavilca (2006)

- BS in Computer Science
- Lead Developer, Stevens University

Return to Photo Page
Mike Malenkov (2007)

- BS in Computer Science
- Undergraduate research
- MS in Computer Science
- Stevens Institute of Technology
- R&D Developer at Teliris

[Return to Photo Page]  [Return to Research Page]
Vinnie Mondaro (1999)

- BS in Computer Science
- IT Compliance Analyst, Barneys New York

Return to Photo Page
Barbara (Basia) Mucha (2005)

- BS, double major, Math/CS, with honors
- Undergraduate Research [5 articles]
- MS, State U of New York, Stony Brook
- Associate Developer, Goldman Sachs
- http://www.linkedin.com/in/basiamucha

Return to Photo Page    Return to Research Page

- BS in Computer Science, with Honors
- Senior Software Engineer
- Bloomberg LP

Return to Photo Page
Joe Ptaszynski (1999)

- BS in Computer Science
  - Minor in Asian Studies
- Senior Programmer Analyst
  - Verizon Wireless
- CEO, Joseph Peter Ptaszynski Productions LLC
  - Currently designing custom medical software

*Return to Photo Page*
Aruna Rajan (2005)

- BS in Computer Science
- Business Intelligence Analyst
  Swissport, Geneva, Switzerland

Return to Photo Page
Simon Min Shi (2005)

- BS in Computer Science, with Honors
- MS in Information Systems: Computer Science
  - Stevens Institute of Technology, 2008
- DBA/Systems Developer for Identity Services
  New York University

http://www.nyu.edu/search.directory.html?search=ss6273&filter_base_id=all

Return to Photo Page
Sarah Smith (2009)

- BS, double major in Mathematics and Computer Science, with Honors

Undergraduate Research
- Sarah Smith, Determinants of Modular Macaulay Matrices (ACM Communications in Computer Algebra, 41(1), 2007, pp. 6-7)
- Mathematics Honors Thesis, Solutions of $\sigma(q)+\sigma(r)=\sigma(q+r)$

Return to Research Page
Scott Stansfield (1998)

- BS in Computer Science, with Honors
- Vice-President and Technical Project Manager
- Bank of America

Return to Photo Page
Purvin Vakharwala (2002)

- BS in Computer Science
- Consulting Engineer, Data Center—Virtualization
  Juniper Networks

Return to Photo Page
Anthony Wlodarski (2006)

- BS in Computer Science
- Lead Software Engineer
- Get2Know.me

http://www.get2know.me

Return to Photo Page
OTHER OPPORTUNITIES
Minor in Computer Science

- 9 courses, 28 credits
- The six freshman/sophomore Computer Science courses required for the major
- Calculus and Discrete Mathematics
- One upper-level Computer Science course

*Back to Opportunities Page*
Minor in Mathematics

- 8 courses, 28 credits
- The four mathematics courses required for the major
  - Calculus II and III
- Two upper-level courses

[Back to Opportunities Page]
Minor in Applied Scientific Mathematics
(in the context of a CS major)

- 6 courses, 21 credits
  - Design of Programs I
  - Calculus I & Statistics
  - Calculus II
  - Two additional mathematics courses
    - Data Structures and Discrete Math count

Second lab science sequence required

Back to Opportunities Page
Data Visualization & Analysis (DAVA)  
(in the context of a CS major)

Undergraduate and Graduate Certificates

For undergraduate certificate

– Take PSYC 1101 as other Social Science core course [entry requirement]
– 6 courses, 18 credits
  ■ Statistics
  ■ Three DAVA courses
  ■ Cognitive Processes
  ■ One elective from a list (Databases counts)

Back to Opportunities Page
Certificate in Business

School of Business

Designed for non-business majors

4 courses, 12 credits

- Principles of Management
- Principles of Marketing
- Financial Accounting
- Introduction to Economics

Back to Opportunities Page
Minor in Computer Graphics

- Dept of Communication and the Arts
- 7 courses, 19 credits
  - 2-D Design and Color
  - Intro to 3-D Computer Graphics
  - Desktop Publishing for Personal Use
  - 4 Computer Graphics/Advertising Art electives

*Back to Opportunities Page*
Certificate in Digital Media Production

Dept of Communication and the Arts

10 courses, 28 credits

- 2-D Design and Color
- Intro to 3-D Computer Graphics
- Desktop Publishing
- Digital Art & Design
- Computer Animation
- Video Animation
- Intro to HTML
- Intro to Multimedia
- Digital Photography
- Flash Animation Design

Back to Opportunities Page
Minor in Asian Studies

- 7 courses, 21 credits
- History of Traditional and Modern Asia
  - Satisfies Humanities Core Requirement (D)
- 4 courses in an Asian language, or Asian Area studies
  - First two language courses satisfy Language Core Requirement (E)
- One additional course

Back to Opportunities Page
RESOURCES
Advice, assistance and referrals for

- Writing resumes and cover letters
- Co-ops and internships
- Part-time jobs while at SHU
- Job opportunities upon graduation
- Graduate school opportunities
Department Resources

Department has information and advice on

- Graduate programs in Computer Science, Mathematics, and related areas
- Co-op and internship opportunities
- Selecting a career or graduate school track
- Selecting courses to meet a career goal

Department offers tutoring for 1st year courses

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