



UNIVERSITY *of* ST. THOMAS

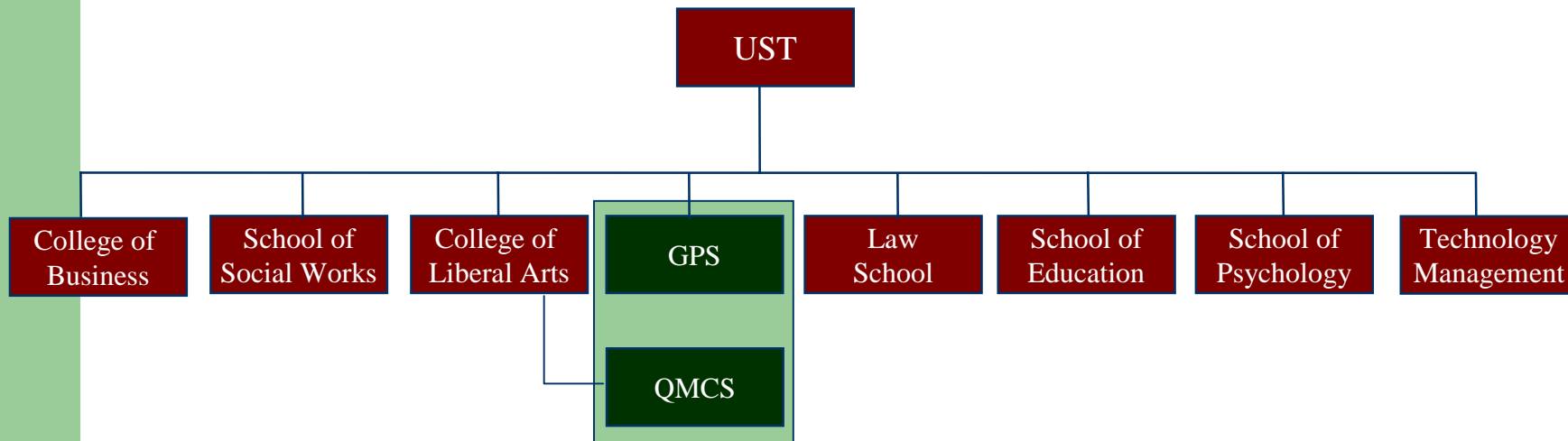
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Graduate Programs in Software



# Outline

- Demographics
  - Graduate programs in Software (MS)
  - Quantitative Methods and Computer Sciences (BS)
- Relevant Courses
- Labs/Research
- Summary

# UST Organization



# UST Demographics

- Campuses in St. Paul, Minneapolis & Italy
- Students (2003)
  - Undergraduate 5,108
  - Graduate 5,825
  - Total 10,933
- Faculty (2003)
  - Tenured 231
  - Tenure track 116
  - Limited Term 55
  - Staff 925
  - Total 1,327

# Industry Input/Feedback

- GPS started based on needs derived from a survey of local corporations in 1985
- Corporations such as Honeywell, 3M, IBM, NCR Comten, Sperry-UNIVAC, CDC were asked about their needs
- Adaptive curriculum based on frequent surveys of companies where our graduates work

# Our Degree Programs

- Graduate
  - Three Master's degrees (MSSE, MSDD, MSS)
  - Three graduate certificates
  - Seminars
  - Mini programs
- Undergraduate
  - BS in computer sciences

# Relevant Courses

- Undergraduate Classes
  - QMCS450 – Database Design
  - QMCS350 – Data and File Structures
  - QMCS419 – Information Systems
  - Topic Class – Data Mining

# Relevant Courses

- Graduate Classes

- CS530 – Database Management Systems & Design
- CS531 – Database Management Systems & Application
- CS532 – Distributed Database Management
- CS535 – Information Retrieval
- CS544 – Object-Oriented Databases
- CS645 – Strategic Information Systems
- CS652 – Design of an Integrated Corp. Information System
- CS68x – Information Security (Topics)
- CS68x – Intro. to Data Warehousing & E-Commerce (Topics)



# Data Admin Or Database Admin

<b>Business Requirement Analysis</b>	<b>Database Physical Modeling and creation</b>
<b>Conceptual and Logical modeling</b>	<b>Database tuning/space management</b>
<b>Standard data definition</b>	<b>Backups and recovery</b>
<b>Meta-data management</b>	<b>Database integrity management</b>
<b>Data Stewardship</b>	<b>User and usage management</b>

# Tools

- Database, Modeling and Data Warehousing
  - Oracle 8i and 9i
  - Microsoft SQL Server 2000
  - Poet Object Oriented database
  - Sybase PowerDesigner (Data Modeling)
  - Popkin System Architect (Data Modeling)
  - Rational Rose UML (OO modeling)
  - Together (OO Modeling and development)
  - MS Analysis Service (Data Warehousing/OLAP)
  - Insightful Miner (Data Mining)

# Hands-on to Support Course Work

- Emphasizes all aspects of the life Cycle
  - Students create a working application using a DBMS from the requirements
  - Students create a data warehouse and create OLAP cubes based on the requirements
  - Students create Distributed database system based on the requirements

# Research

- Beyond lab work for classes, Master students are encouraged to do research:
  - Distributed System Lab
    - Testbed for doing research in databases, dist databases, data mining, and data warehousing
  - Web Lab
    - Testbed for doing research in web design and development and database access across the web
  - OO Lab
    - Testbed for doing research in object-oriented systems based on OO database technology

# Call for Papers

- Theme: Emerging technologies
- Dates: August 25<sup>th</sup> and 26<sup>th</sup>
- Location: UST Minneapolis Campus
- Papers due: May 1<sup>st</sup>
- More information:  
[www.rfbinternational.com/icet03.htm](http://www.rfbinternational.com/icet03.htm)  
Email: [skrahimi@stthomas.edu](mailto:skrahimi@stthomas.edu)

# Discussion/Questions

Contact:

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