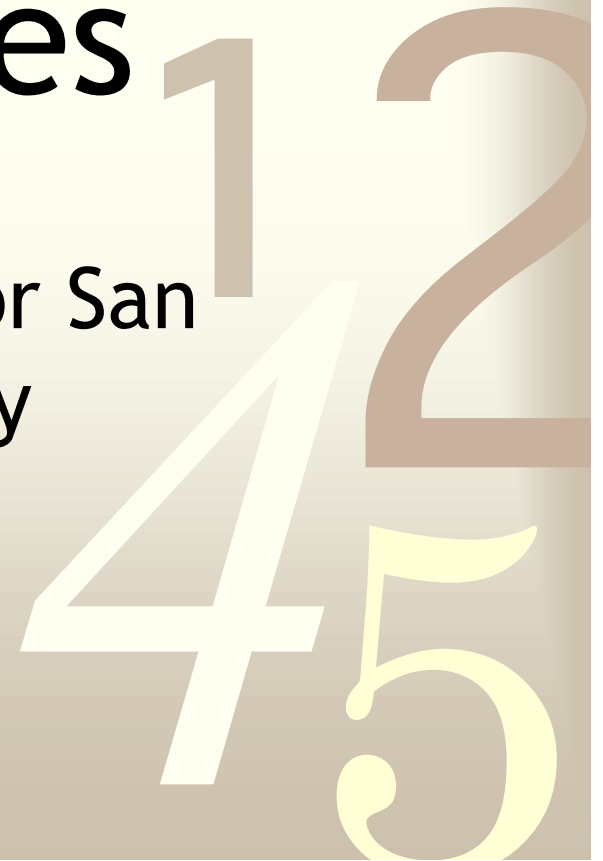


Quantitative Literacy: Best Practices

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Developing an Agenda for San
Jose State University



What is Quantitative Literacy?

- 0011
- Ability to use and understand numbers
 - Ability to apply math, statistics, & technology
 - Understanding the limitations of their use



Institutional Best Practices

Single-level program

- Requirements:

- Test (such as SAT or AP score)
- Successful completion of identified course
- Credit-hours in Qualitative Literacy
- Non-credit tutorial program

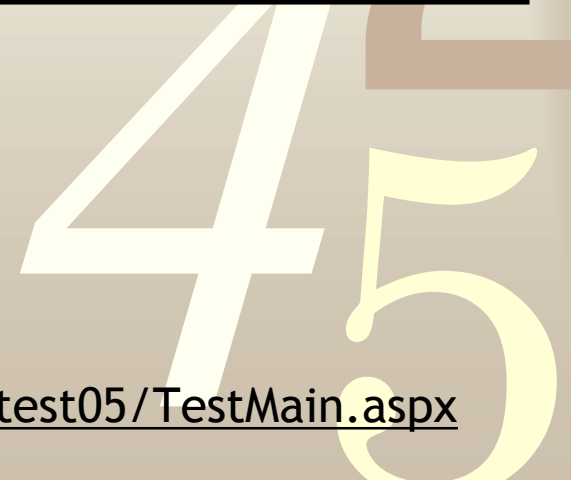
- Common topics:

- Numerical Relationships
- Statistical Relationships
- Algebraic Relationships
- Logical Relationships

- ### - Practice exam: <http://mathrc.indstate.edu/qltest05/TestMain.aspx>

EXAMPLES:

Indiana State University
Oberlin College
Hamilton College
Trinity College
Daemen College
Dickinson College
University of Washington



Institutional Best Practices

Multiple-level program

- 2+ course sequence in Qualitative Literacy
 - Introduction
 - Upper-Division
- Qualitative Literacy test or foundation course followed by discipline-specific Qualitative Literacy course

EXAMPLES:

Temple University
Lewis & Clark University
Alverno College
Hollins University
Skidmore College
University of Illinois at
Chicago & Urbana-
Champaign
Simon Fraser University



Institutional Best Practices

Resource Programs

Quantitative Literacy Center *Hamilton College*

Quantitative Skills Center *University of Washington*

Mathematics Center *Trinity College*

Q-Skills Program *Bowdoin College*

Q-Center *DePauw University*

QR-Center *Hollins University*

Common Services:

Tutors, Study Groups, Test Administration, Qualitative Literacy Courses, Resources for Faculty & Course Development

Some QL Course Examples

- “Quantitative Problem Solving”

0011 - S/U grading, problem solving, reasoning, mathematical communication, Valparaiso University

- “Case Studies in Quantitative Reasoning”

- Interdisciplinary, team-taught, focus on reasoning & evaluation, Mount Holyoke

- “Core Competency in Mathematics”

- Use of mathematical thinking as an educated person, Northern Illinois University

- “Chance”

- QL course focused on news stories using probability & statistics, Dartmouth College

- “Integrating Reading, Writing & Quantitative Literacies”

- Focuses on reading, writing, computer & quantitative skills necessary for success, Alverno College

Good Ideas for Teaching Mathematical Concepts

(Jennifer Wenner and Heather McDonald; <http://serc.carleton.edu/quantskills/>)

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- Place concepts in context
 - (e.g., use practical, everyday examples)
- Use multiple representations
 - (e.g., symbols, numbers, & words)
- Use appropriate technology
 - (e.g., spreadsheets and calculators)
- Group assignments
- Use “in-depth” problems that last more than one day

