

NCATE
Compliance with Specialty Outcomes

Professional Organization: National Council of Teachers of Mathematics

Institution Submitting Program: Southern Connecticut State University (CT)

Program: Grades 7-12

Degree Level(s): Baccalaureate, Post-Baccalaureate

Date of Review: May 25, 2002

OUTCOMES PARTIALLY MET OR NOT MET: Grades 7-12 Baccalaureate and Post-Baccalaureate

Outcome 1.3 on communication is partially met. More specific evidence is needed regarding oral communication in courses other than MAT 405.

Outcome 1.4 on connections is partially met. The evidence regarding connections among different areas of mathematics is weak.

Although outcome 1.5.1 on applying the concepts of number, number theory, and number systems is met, the reviewers note that MAT 250 should be included as evidence for meeting this outcome.

Outcome 1.5.6 on descriptive and inferential statistics is not met for undergraduates, and it is partially met for graduate students. A required statistics course is lacking for undergraduates. The evidence for inferential statistics is lacking for the graduate students program.

Outcome 1.5.7 on understanding the concepts of random variable, distribution functions and theoretical versus simulated probability and applying them to real-world situations is partially met by the graduate program. The syllabi evidence is incomplete for MAT 525. This outcome is not met in the undergraduate program since MAT 321 is not required in their program.

Outcome 1.5.11 on graph theory, recurrence relations, linear programming, difference equations, matrices, and combinatorics is not met. As you state, since MAT 378 is not a required course in your program this outcome is not met in both the undergraduate and the graduate programs.

Although outcome 1.5.12 on the use of mathematical modeling to solve problems from various other fields is met, the reviewers suggest that you cite MAT 372 for evidence of meeting this outcome.

Outcome 1.5.14 on understanding and applying the major concepts of abstract algebra is met even though the evidence description is incomplete.

Outcome 1.6 on the historical development of mathematics including contributions from underrepresented groups is not met. Citing the development of non-Euclidean geometry is appropriate, but provides a very limited view of the history of mathematics. Also, citing an elective course is not adequate evidence that all graduates of these programs meet this outcome.

Outcome 2.4 on identifying, teaching, and modeling problem solving is partially met. More evidence is needed to assure that prospective teachers can teach and model problem solving.

Outcome 2.9 on interdisciplinary team and interdisciplinary environment work is not met. The institution names this as an area that needs development.

PERCEIVED PROGRAM STRENGTHS: Syllabi for education courses are very well written.

The inclusion of a course like MAT 405, Elementary Math from an Advanced Standpoint, is not often seen in a program. This provides an excellent background for prospective mathematics teachers.

PERCEIVED PROGRAM WEAKNESSES: The undergraduate program does not require a course in probability and statistics.

The area of discrete mathematics is not adequately addressed in both the undergraduate and the graduate programs.

History of mathematics is an area of weakness in both the graduate and undergraduate programs.

Work in interdisciplinary groups, especially as team teachers, is not addressed in these programs.

OTHER COMMENTS: Two distinct programs were described in this submission. However, more effort should be made to distinguish between the two.

The chief compiler did not sign the cover sheet.

PROFESSIONAL ASSOCIATION'S RECOMMENDATION REGARDING COMPLIANCE OR NONCOMPLIANCE WITH THE SPECIALITY OUTCOMES (i.e., has the institution adequately met the specialty outcomes?):

Programs in Compliance:

Programs NOT in Compliance: The grades 7-12 mathematics teacher preparation programs (baccalaureate and post-baccalaureate) at Southern Connecticut State University is not in compliance with the National Council of Teachers of Mathematics-NCATE outcomes.

Additional Information Needed to Determine Compliance

If a second review of the of the program folio is requested by the institution, how many copies of the rejoinder should be submitted? Two copies are needed by NCTM.

Special directions for the preparation of a rejoinder: The rejoinder can take the form of a memorandum addressing the outcomes partially met or not met and the perceived program weaknesses. None of the materials submitted need to be re-sent, since they are on file.