Acreditación NCATE/NCTM

- **Program is nationally recognized with conditions . . . through: 02 / 01 / 2011. To retain national recognition, a report addressing the following conditions must be addressed within 18 months (9/15/10):**
- The SPA-required number of standards and indicators is not met. NCTM requires programs to meet at least 80% of the indicators including at least one indicator from each standard.
- There is a lack of quality and clarity for some assessments.
- There is a lack of data for some assessments.
- Please see comments in Sections B-E for more specific details.

Programa de Educación Matemática

- NCTM tiene 16 estándares para los programas de preparación de maestros
- Cumplimos 58 de los 81 indicadores y por lo menos un indicador en 13 de los 16 estándares
- No cumplimos ningún indicador en los estándares #6 y #16
- Marcaron un indicador de 4 cumplido en el estándar #13

Estandar #13

Standard 13. Knowledge of Discrete Mathematics. Candidates apply the fundamental ideas of discrete mathematics in the formulation and solution of problems.

Indicators:

13.1 Demonstrate knowledge of basic elements of discrete mathematics such as graph theory, recurrence relations, finite difference approaches, linear programming, and combinatorics.

13.2 Apply the fundamental ideas of discrete mathematics in the formulation and solution of problems arising from real-world situations.

Estandar #13

Standard 13 comments:

Indicators are not addressed by either listed assessment. There is not a discrete mathematics course listed for teachers to take as part of their coursework.

Estandar #6

Standard 6. Knowledge of Technology. Candidates embrace technology as an essential tool for teaching and learning mathematics.

Indicators:

6.1 Use knowledge of mathematics to select and use appropriate technological tools, such as but not limited to, spreadsheets, dynamic graphing tools, computer algebra systems, dynamic statistical packages, graphing calculators, data-collection devices, and presentation software.

Estandar #6

Standard 6 comments:

The Unit Planning assessment does not provide a clear assessment piece for technology. The PCMAS appears to measure computer literacy as a field of study, not as a tool for teaching mathematics. The descriptions of technology use from the course grades (Assessment #2) do not address selection of appropriate technological tools.

Hay seis indicadores más en seis otros estándares relacionados a la tecnología. Ninguno cumplido.

Indicadores Relacionados a la Tecnología

8.9 Develop lessons that use technology's potential for building understanding of mathematical concepts and developing important mathematical ideas.

10.5 Use technological tools to explore algebraic ideas and representations of information and in solving problems.

11.7 Use concrete models, drawings, and dynamic geometric software to explore geometric ideas and their applications in real-world contexts.

Indicadores Relacionados a la Tecnología

12.4 Use technological tools to explore and represent fundamental concepts of calculus.

13.3 Use technological tools to solve problems involving the use of discrete structures and application of algorithms.

14.6 Draw conclusions involving uncertainty by using hands-on and computer-based simulation for estimating probabilities and gathering data to make inferences and conclusions.

Indicadores Relacionados a la Historia de las Matemáticas

9.10 Demonstrate knowledge of the historical development of number and number systems including contributions from diverse cultures.

10.6 Demonstrate knowledge of the historical development of algebra including contributions from diverse cultures.

11.8 Demonstrate knowledge of the historical development of Euclidean and non-Euclidean geometries including contributions from diverse cultures.

Indicadores Relacionados a la Historia de las Matemáticas

12.5 Demonstrate knowledge of the historical development of calculus including contributions from diverse cultures.

13.4 Demonstrate knowledge of the historical development of discrete mathematics including contributions from diverse cultures.

14.8 Demonstrates knowledge of the historical development of probability and statistics including contributions from diverse cultures.

15.4 Demonstrate knowledge of the historical development of measurement and measurement systems including contributions from diverse cultures.

Estandar #16

Standard 16. Field-Based Experiences. Candidates complete field-based experiences in mathematics classrooms.

Indicators:

16.1 Engage in a sequence of planned opportunities prior to student teaching that includes observing and participating in both middle and secondary mathematics classrooms under the supervision of experienced and highly qualified teachers.

16.2 Experience full-time student teaching in secondary mathematics that is supervised by a highly qualified teacher and a university or college supervisor with secondary mathematics teaching experience

16.3 Demonstrate the ability to increase students' knowledge of mathematics.

Estandar #16

Standard 16 comments:

Indicator 16.1 is not met in that middle school observations are not part of the planned opportunities.

Indicator 16.2 is not met because the only university supervisor who appears to have secondary mathematics experience is a certified secondary teacher of mathematics but no information about her experience is listed.

Indicator 16.3 is not met because Assessment #3 does consider how student knowledge might be increased, but does not evaluate if student knowledge has increased. Assessment #5 claims to show "evidence of impact on student learning", but this tool was only used for one semester.

Programa de Educación Matemática

- De los 16 estándares de NCTM para los programas de preparación de maestros, nos falta cumplir:
  - Matemáticas Discretas
  - Seleccionar y Usar Tecnología
  - Práctica Supervisada
- De los 81 indicadores de NCTM hay que cumplir un mínimo de 65 (80%). Nos faltan 7.
- NCATE viene de visita en abril de 2010