

## Student Learning Outcomes

### The Bachelor's degree in Mathematics

#### *Mathematical Knowledge*

Students will know the standard facts and algorithms of

- K - 1. calculus and differential equations
- K - 2. advanced analysis, including the theoretical justification of the basic rules of calculus
- K - 3. abstract algebra, including the basic properties of groups, rings, and fields
- K - 4. a specialized area of mathematics at a basic level (as defined by the student and the student's advisor)

#### *Mathematical Reasoning*

Students will be able to

- R - 1. define and explain mathematical concepts.
- R - 2. compose and explain mathematical proofs and counter examples; make logical inferences
- R - 3. propose conjectures, generalizations, and mathematical questions
- R - 4. solve non-routine mathematical problems
- R - 5. read, discuss, and write mathematics

For this degree, outcomes will be assessed at the **basic** level, characterized by an ability to explain and reproduce concepts and mathematical arguments developed in classes and readings and the ability to apply these ideas to new situations that are similar in broad outlines to previously encountered situations.