

Current Objectives for Calvin Mathematics Majors

1. Mathematical maturity – the ability to communicate mathematics (to read, to write, to speak, and to listen), to formulate problems, and to abstract, generalize, model, and prove.
2. Basic knowledge in pure and applied mathematics.
3. Context – an understanding of the cultural (social, philosophical, and historical) context of mathematics and the ability to reflect on it from a Christian perspective.
4. Enthusiasm for on-going learning in mathematics.
5. Service – that graduates will use their mathematical training to serve God and their communities.

Revised Objectives for Calvin Mathematics Majors

1. Knowledge Goals
 - Students will have a basic knowledge of the concepts, methods, and techniques of differential and integral calculus, linear algebra, real analysis, and abstract algebra.
2. Praxis Goals
 - Students will be able to understand and construct proofs in abstract mathematics.
 - Students will be able to propose and solve mathematical problems/questions.
 - Students will be able to communicate mathematics orally and in written form.
3. Attitude Goals
 - Students will have enthusiasm for on-going mathematical activity.
 - Students will see mathematics as an important feature of creation, worthy of study and application in serving God and their communities.
4. Context Goals
 - Students will understand the cultural (social, philosophical, and historical) context of mathematics, and will be able to reflect on it from a Christian perspective.

Objectives for Secondary Education Mathematics Majors

1. Knowledge Goals

- Students will have a basic knowledge of the concepts, methods, and techniques of geometry, differential and integral calculus, discrete mathematics, linear algebra, real analysis, abstract algebra, statistics and probability.
- Students will have a deep understanding of how students learn mathematics.

2. Praxis Goals

- Students will be able to understand and construct proofs in abstract mathematics.
- Students will be able to propose and solve mathematical problems/questions.
- Students will be able to communicate mathematics orally and in written form.
- Students will be able to use technology as a tool for teaching and learning mathematics.
- Students will be able to apply and use measurement concepts and tools.
- Students will be able to effectively plan for classroom instruction.

3. Attitude Goals

- Students will have enthusiasm for on-going mathematical activity.
- Students will see mathematics as an important feature of creation, worthy of study and application in serving God and their communities.

4. Context Goals

- Students will understand the cultural (social, philosophical, and historical) context of mathematics, and will be able to reflect on it from a Christian perspective.