# ALTERNATIVE CLASS A EDUCATION PROGRAM CHECKLIST

**Institution:** The University of Alabama in Huntsville

**Date Approved:**

**Date Expires:**

**Revisions:**

**Program:** Alternative A - Mathematics

**Total Hours:** 46

## Study in each of the following areas:

### Curriculum:
- **ED 604 - Contributions of Psychology to Education**
  - 3 hours
- **ED 609 - Classroom & Behavior Management**
  - 3 hours

### Methods of Teaching:
- **ED 522 - Teaching Mathematics in Middle and High Schools**
  - 3 hours

### Diverse Populations: (including special needs)
- **ED 530 - Applied Multiculturalism**
  - 3 hours

### Literacy: (including mathematics and technology)
- **ED 608 - Reading in the Content Areas**
  - 3 hours
- **ED 520 - Computer-based Instructional Technology**
  - 3 hours

### Professionalism:
- **ED 501 - Introduction to Education**
  - 1 hour

### Using Assessment Data to Improve Student Learning:
- **ED 607 - Education Leader as Evaluator**
  - 3 hours

### Survey of Special Education Coursework: (required if not previously completed)
- **ED 593 - Educating the Exceptional Child & Youth**
  - 3 hours

### Internship:
- **ED 698 - Middle and High School Internship**
  - 3 hours

### Teaching Field:
At least 1/3 of the program shall be in teaching field courses.
- 15 hours of graduate coursework in Mathematics is required

See attached list of course options or Graduate catalog for course descriptions

English Language Arts, General Science, and General Social Studies programs shall require at least one course in two areas within the broader field.

### Additional Courses:

### Dean of Education:

**Beth N. Quick**

**Date:** 9-17-2015
Mathematics Graduate Courses

- MA 502 - Introduction to Real Analysis
- MA 503 - Introduction to Complex Analysis
- MA 506 - Methods of Partial Differential Equations
- MA 508 - Applied Linear Algebra
- MA 515 - Introduction to Numerical Analysis
- MA 520 - Intermediate Differential Equations
- MA 524 - Dynamical Systems I
- MA 526 - Partial Differential Equations I
- MA 538 - Metric Spaces with Applications
- MA 540 - Combinatorial Enumeration
- MA 542 - Algebra
- MA 544 - Linear Algebra
- MA 561 - Introduction to Fourier Analysis
- MA 562 - Intermediate Fourier Analysis
- MA 565 - Intermediate Mathematical Modeling
- MA 585 - Probability
- MA 590 - Selected Topics in Mathematics
- MA 607 - Mathematical Methods I
- MA 609 - Mathematical Methods II
- MA 614 - Numerical Methods for Linear Algebra
- MA 615 - Numerical Methods for Partial Differential Equations
- MA 624 - Dynamical Systems II
- MA 626 - Partial Differential Equations II
- MA 633 - Geometry
- MA 638 - General Topology
- MA 640 - Graph Theory
- MA 643 - Group Theory
- MA 644 - Matrix Theory
- MA 645 - Combinatorial Design
- MA 653 - Real Analysis I
- MA 654 - Real Analysis II
- MA 656 - Complex Analysis I
- MA 658 - Introduction to Functional Analysis
- MA 661 - Special Functions
- MA 662 - Asymptotics and Perturbation Methods
- MA 667 - The Calculus of Variations and Optimal Control
- MA 685 - Stochastic Processes with Applications I
- MA 686 - Stochastic Processes with Applications II
- MA 690 - Special Topics in Mathematics
- MA 695 - Graduate Seminar
- MA 699 - Master's Thesis