STATE OF ALABAMA DEPARTMENT OF EDUCATION
TEACHER EDUCATION AND CERTIFICATION

Program: Alternative A - Physics

Total Hours: 46

ALTERNATIVE CLASS A EDUCATION PROGRAM CHECKLIST

Institution: The University of Alabama in Huntsville

Date Approved: _____
Date Expires: _____
Revisions: _____

Study in each of the following areas:

Curriculum:	
ED 604 - Contributions of Psychology to Education	3
ED 609 - Classroom & Behavior Management	3
Methods of Teaching:	
ED 523 - Teaching Science in Middle and High Schools	3
Diverse Populations: (including special needs)	
ED 530 - Applied Multiculturalism	3
Literacy: (including mathematics and technology)	
ED 608 - Reading in the Content Areas	3
ED 520 - Computer-based Instructional Technology	3
Professionalism:	
ED 501 - Introduction to Education	1
Using Assessment Data to Improve Student Learning:	
ED 607 - Education Leader as Evaluator	3
Survey of Special Education Coursework: (required if not previously completed)	
ED 593 - Educating the Exceptional Child & Youth	3
Internship:	
ED 698 - Middle and High School Internship	3

Teaching Field: At least 1/3 of the program shall be in teaching field courses.

15 hours of graduate coursework in Physics is required

**See graduate course listing or graduate catalog for courses 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

Physics - Graduate Courses

- • PH 531 - Introduction to Plasma Dynamics
- • PH 541 - Geometrical Optics
- • PH 542 - Physical Optics
- • PH 544 - Optoelectronics
- • PH 546 - Radiometry, Detectors, and Sources
- • PH 553 - Introduction to Particle Physics
- • PH 560 - Introduction to Solid State Physics I
- • PH 561 - Introduction to Solid State Physics II
- • PH 570 - Optical and Photonic Systems Design
- • PH 571 - Stellar Astrophysics
- • PH 572 - Galaxies & Cosmology
- • PH 574 - Introduction to General Relativity
- • PH 579 - Observational Astrophysics
- • PH 601 - Classical Dynamics I
- • PH 607 - Mathematical Methods I
- • PH 609 - Mathematical Methods II
- • PH 615 - Introduction to Radiological Physics
- • PH 616 - Physics of Radiation Therapy
- • PH 621 - Statistical Mechanics and Kinetic Theory I
- • PH 622 - Statistical Mechanics and Kinetic Theory II
- • PH 631 - Electromagnetic Theory I
- • PH 632 - Fourier Optics
- • PH 636 - Introduction to Space Plasma Physics
- • PH 642 - Optical Physics
- • PH 645 - Lasers I
- • PH 651 - Quantum Mechanics I
- • PH 652 - Quantum Mechanics II
- • PH 654 - Optical Testing
- • PH 655 - Applied Quantum Mechanics
- • PH 661 - Data Analysis and Statistical Methods for Physics and Astrophysics
- • PH 662 - Computational Physics
- • PH 670 - Optomechanical Design and Manufacturing
- • PH 671 - Optical Fabrication and Testing
- • PH 673 - High Energy Astrophysics
- • PH 674 - General Relativity and Gravitation I
- • PH 679 - Education Capstone Course
- • PH 680 - Selected Topics
- • PH 681 - Selected Topics
- • PH 682 - Selected Topics
- • PH 683 - Selected Topics
- • PH 684 - Selected Topics
- • PH 685 - Selected Topics
- • PH 686 - Selected Topics
- • PH 687 - Selected Topics
- • PH 688 - Selected Topics
- • PH 689 - Selected Topics
- • PH 699 - Master's Thesis Research