

## **Science and Mathematics Education Major (Middle School Level) Overview:**

The Science and Mathematics Education major for middle school students focuses on preparing educators to teach science and mathematics to students in grades 4-8. The program emphasizes teaching strategies, curriculum development, and assessment practices tailored to the developmental needs of young adolescents. Students gain a deep understanding of scientific principles and mathematical concepts while learning how to engage students through inquiry-based learning and hands-on activities. Graduates are equipped to foster curiosity and problem-solving skills in the classroom.

### **Typical Industry Sectors:**

1. K-12 Education (Middle Schools)
2. Educational Technology
3. Tutoring and After-School Programs
4. Curriculum Development
5. Educational Research and Policy

### **10 Sample Entry-Level Job Titles:**

1. Middle School Science Teacher
2. Middle School Math Teacher
3. STEM Teacher
4. Teaching Assistant
5. After-School Program Coordinator
6. Science Lab Assistant
7. Educational Aide
8. Curriculum Developer
9. Substitute Teacher
10. Educational Resource Specialist

### **5 Hard Skills:**

1. Curriculum Design for Science and Math
2. Classroom Management Techniques
3. Scientific Methodology and Lab Skills
4. Mathematical Problem-Solving Strategies
5. Data Collection and Assessment

### **5 Soft Skills:**

1. Communication
2. Critical Thinking
3. Patience

4. Collaboration
5. Adaptability

**Additional Training or Certifications:**

To begin a career as a middle school science and mathematics educator, most states require a teaching certification specific to middle school grades, which includes completing a teacher preparation program, passing certification exams, and fulfilling continuing education requirements. Specialized certifications may be needed for areas like special education or ESL.

**Student and National Organizations:**

1. [National Science Teachers Association \(NSTA\)](#)
2. [National Council of Teachers of Mathematics \(NCTM\)](#)
3. [Association for Middle Level Education \(AMLE\)](#)
4. [American Association of Physics Teachers \(AAPT\)](#)
5. [Phi Delta Kappa International \(PDK\)](#)