

## Chemistry – Applied Chemistry and Chemical Sciences PSM, MS

**School/College:** College of Arts and Sciences

**Degree(s) Offered:** Master of Arts in Teaching, Master of Science

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**Department Chair:** Zerihun Assefa **Email:** zassefa@ncat.edu **Phone:** 336-285-2255

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The Professional Science Master's program in Chemistry has the objective of advancing technical skills, industry-guided knowledge and business management. The program prepares students for career opportunities in businesses utilizing chemical and/or biochemical processes and instrumentation.

### **Additional Admission Requirements**

- An undergraduate degree in science
- At least one year of physical chemistry and calculus courses consisting of differential and integral equations.
- Two of the three letters of recommendation should be from former science or math professors.

### **Program Outcomes:**

- **Communication:** M.S. candidates will demonstrate the ability to comprehend, apply and evaluate information from chemistry literature which is to be orally presented and validated in a seminar.
- **Applied Chemistry Knowledge:** M.S. candidates will demonstrate chemistry proficiency in the sub-disciplines of chemistry: analytical, inorganic, organic, biochemistry and physical as it pertains to real life applications and product development
- **Research Training and Ethics:** M.S. candidates will acquire the basic tools needed to carry out independent chemical research. Students should become proficient in their specialized area of chemistry and successfully complete a written graduate level research project designed to address industrial and other collaborative needs.

### **Degree Requirements**

Total credit hours: 33

Core courses: 13 credit hours

- CHEM 792, 711, 722, 732, 743

Internship/project

- Take 5 credit hours: CHEM 770

Disciplinary Electives

- Take 6 credit hours from: BIOL 600-799, CHEM 600-799, CHEN 600-799, MATH 600-799, PHYS 600-799

Business/Management Electives

- Take 9 credit hours from: ACCT 708, 714; ECON 706; MGMT 705, 712, 718