MIDSTATE COLLEGE 411 W. NORTHMOOR RD. PEORIA, IL 61614 (309) 692-4092 (800) 251-4299 Spring 2016

Course number & Name: CHE 107 Introduction to Chemistry Laboratory

Credit hours: 2 quarter hours Method of Delivery: In Class Laboratory

Text: Chemistry Lab Manual (given in class) **Author:** Alan Paredes Ph.D. **Publisher:** Self Published

Course Description: IAI approved for transfer as P1 902L

A one-quarter introductory chemistry course for non-science majors to be taken concurrently with CHE 106, Introduction to Chemistry. In general, emphasis will be on laboratory techniques. Each laboratory includes, but is not limited to, the investigation of physical and chemical, density, chemical reactions, acids, bases, and PH.

Topics: to be covered: Lab safety, Observation of chemical reactions, measurements, separation techniques, properties of gases, liquids, and solids, ions, stoichiometry, caloric content of food.

Learning Objectives: Upon completion of this course, the student will be able to:

- 1. perform lab techniques with basic safety procedures in mind.
- 2. observe chemical changes of basic reactions
- 3. perform basic measurements of units
- 4. separate two solids
- 5. observe basic properties of gases
- 6. separate liquids from solids using filtration
- 7. observe physical and chemical properties of basic elements
- 8. identify metallic ion
- 9. perform ionic reactions
- 10. observe precipitates of reactions
- 11. determine caloric content of food

Midstate Grading scale: 90 - 100 A

80 - 89 B 70 - 79 C 60 - 69 D 0 - 59 F

Midstate Plagiarism Policy:

Plagiarism is using another person's words without giving credit to the author. Original speeches, publications, and artistic creations are sources for research. If students use

the author's words in a paper or assignment, they must acknowledge the source. Plagiarism is strictly against the academic policy of the college and is grounds for failing the course. If repeated, plagiarism may result in suspension from the college. (See the Midstate College catalog and/or Student Handbook for additional information.)

In courses containing writing assignments, the college promotes the use of an electronic resource which compares the student's writing against previously submitted papers, journals, periodicals, books, and web page. Students and instructors can use this service to reduce the incidence of plagiarism. This electronic resource has been found to conform to legal requirements for fair use and student confidentiality. It is able to provide a report to the student indicating the parts of the assignment that match.

Student Success:

The Office of Student Success is available to students seeking tutoring for individual classes or who need assistance with writing assignments. Information is also available on test taking techniques, how to take notes, developing good study skills, etc. Contact Student Success in Room 217 (in person); (309) 692-4092, extension 2170 (phone); <u>studentsuccess@midstate.edu</u> (email).

Instructor Information: Alan M. Paredes Ph.D., Room 226, (309) 692-4092, <u>aparedes@midstate.edu</u>, Office Hours: M/W 9 am – 11 am.

Participation Requirements/Policies and Procedures:

Attendance is necessary to achieve a grade of 'C' or better.

Grading Specifications: 10 labs worth 10 points each 100 points

Course Schedule:

Week One

Topics: Lab safety

Objective: perform lab techniques with basic safety procedures in mind.

Assignment: read safety procedure in lab manual

Week Two

Topics: Observe basic chemical changes

Objective: observe chemical changes of basic reactions

Assignment: Lab one

Week Three

Topics: units

Objective: perform basic measurements of units

Assignment: Lab two

Week Four

Topics: separation of solids

Objective: separate two solids

Assignment: Lab three

Week Five

Topics: properties of gases

Objective: observe basic properties of gases

Assignment: Lab four

Week Six

Topics: filtration

Objective: separate liquids from solids using filtration

Assignment: Lab five

<u>Week Seven</u>

Topics: properties

Objective: observe physical and chemical properties of basic elements

Assignment: Lab six

Week Eight

Topics: lons

Objective: identify metallic ion

Assignment: Lab seven

Week Nine

Topics: ions

Objective: perform ionic reactions

Assignment: Lab eight

<u>Week Ten</u>

Topics: precipitates

Objective: observe precipitates of reactions

Assignment: Lab nine

Week Eleven

Topics: caloric content of food

Objective: determine caloric content of food

Assignment: lab ten

Week Twelve

Topics: Catch up (any missed labs can be performed in week 12)

Objective: Catch up (any missed labs can be performed in week 12)

Assignment: Catch up (any missed labs can be performed in week 12)