

**Prep for Basic Chemistry
Fall 2011
Mid-State Technical College**

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Class: 8/26 – 12/16/2011
9:00 – 10:50AM
Stevens Point Room 139

Course Description:

Prep for Basic Chemistry is a course that prepares students with no previous chemistry and limited math experience to enter a college level chemistry course.

Goals

- Master the basic concepts of chemistry by applying necessary math skills and problem solving techniques to:
 - exponents and logarithms
 - measurement concepts and systems
 - division and properties of matter
 - atomic structure
 - chemical bonding and formula writing
 - nomenclature
 - equation balancing
 - weight relations
 - solutions, including acids and bases
- Classify different types of chemical reactions
- Differentiate between elements, compounds, and mixtures.

Course Competencies

- Competency 1: Do simple calculations with numbers in power-of-ten form and find the logarithm of a number.
- Competency 2: Use simple measurement concepts and dimensional analysis.
- Competency 3: Use the metric system of measurement to measure length, volume, mass and temperature and calculate the density and specific gravity of a substance.
- Competency 4: Identify the various states of matter and differentiate between chemical and physical changes in matter.
- Competency 5: Describe the basic structure of the atom and use various symbols to represent that structure; define an ion and describe its formation.
- Competency 6: Describe how ionic and covalent compounds form and write the formulas of simple compounds.
- Competency 7: Identify and name compounds within four major classes.
- Competency 8: Classify, then balance chemical equations using the inspection method.
- Competency 9: Use basic chemical measurement concepts to solve problems.

- Competency 10: Solve percent by weight, percent by volume, molarity, dilutions, and pH concentration problems for solutions.

Text Leo Michels, *A Basic Math Approach to Concepts of Chemistry*, 6th Edition, 1996, Brooks/Cole Publ. Co ISBN 0-534-26574-X Rents for \$38.53

Supplies:

- Bring paper, a pencil or pen, and the text to each class.
- A separate folder or 3-ring binder is recommended.
- Calculators will be allowed for all tests. It is recommended that you purchase one such as the *Texas Instruments® TI-30XII's Scientific Calculator*.

Note that it is *your* responsibility to get to know your calculator. If you need help with it, please go to the Academic Support Center (ASC/126).

Core Abilities MSTC has identified nine Core Abilities that all students should be able to demonstrate before graduating:

- Act with integrity
- Communicate clearly and effectively
- Demonstrate effective critical and creative thinking
- Learn effectively
- Work cooperatively
- Manage self responsibly
- Apply technology
- Assure quality
- Demonstrate global awareness

Part of the way you demonstrate these core abilities is through attendance, prompt arrival to class, class participation, attitude and behavior. You cannot pass the class without demonstrating these core abilities on a consistent basis.

Attendance It is unlikely that you will do well in the course if your attendance is poor. This course is designed so that learning can occur if you attend and participate in classroom activities. Participation and learning become increasingly difficult when you do not attend the scheduled classes. Absences for more than two (2) classes may result in withdrawal from the course. Students who are more than ten (10) minutes late will be counted as absent.

MSTC email As an MSTC student, you have access to the college's email system, *Live@edu*. Students who are either on-campus or off-campus will need to log onto **Live@edu** using the URL: <http://my.mstc.edu> to gain access to their email. For detailed instructions on accessing Live@edu for the first time from either on-campus or off-campus, please see the instructions at <http://my.mstc.edu/instructions.docx> or click the link on my home page. Be sure you check your MSTC email *at least every other day*, as class information will be posted there.

Email Policy All email correspondence to me *MUST* be sent through your official MSTC email account. For safety against computer viruses and to remove SPAM email messages, I **may delete without reading** any email from an account other than your assigned **mstc.edu** address. IF you use any other email account (such as yahoo or hotmail) to contact me— you **MUST** assume that the message **WILL NOT** be read.

Course Grading

There will be 10 competency exams during this course. Expect to take an exam after each unit. Test dates will be announced in class. The format of the exams will be paper/pencil. Your grade will be determined by averaging the competency tests, but *you must have a passing score of **at least 60% on each one***. This means that *even if your average is above 60% you will receive an "IC" grade for the course*. Also, you must at least *attempt* all tests to avoid an "F." Additionally, you need an average of at least **72%** in order to pass the course with a "C" or better to meet certain program course pre-requisites. You may retake any test for a higher score, but you **must** first meet with me in ASC to review your mistakes. Your final grade will be determined as follows:

92-100	A
90-91.9	A-
88-89.9	B+
82-87.9	B
80-81.9	B-
78-79.9	C+
72-77.9	C
70-71.9	C-
68-69.9	D+
62-67.9	D
60-61.9	D-
<60	F

Viewing Course Grades

Grades will be posted on MyMSTC in the on-line grade book. Please allow a reasonable amount of time for me to submit exam grades.

Exams

Cheating on a test will lead to an automatic failure of that test and possibly other penalties.

Every effort should be made by you to take tests earlier if you are unable to take it at the scheduled time. Any tests taken after the date given will be subject to a 10% fine. *Tests must be taken within one (1) week of the testing date or the test grade will be 0%.*

Students are expected to be prepared for the exam (i.e. come with a pencil and student identification number).

My web site

You will be able to access my website via the Mid-State Technical College site (www.mstc.edu). Click on Faculty Home Pages, General Education, and then click on Bruce Bell. You will find pertinent and contact information there as well.

Contacting me

Please feel free to contact me with any questions or concerns that you may have. I am here to facilitate your learning process. You may contact me via office phone (voice mail) or e-mail, see me during office hours, or come to ASC.

Respect & Civility

The following are expected:

- Respect the rights of others to learn.
- Be an active participant in class.
- Pay attention- you may miss important information and concepts because of distractions.

ADA Statement	If you know you have a recognized disability, or suspect that you might have one, it is your responsibility to identify yourself as soon as possible to the Disability Services staff in Student Affairs. Course standards will not be lowered, but various kinds of accommodations are available to you. Adequate and reasonable time will be required to develop and provide appropriate accommodations, so contact Disability Services as soon as possible. It is MSTC's goal to assist you in your educational plan.
Academic Integrity	The MSTC board, administration, faculty and staff believe that academic honesty and integrity are fundamental to the mission of higher education. All students are expected to maintain and promote the highest standards of personal honesty and professional integrity. These standards apply to all examinations, assigned work, and projects. Therefore, a student who is found to have been dishonest, fraudulent, or deceptive in the completion of work or is willing to help others to be so, or who plagiarizes by presenting the work of others as his or her own, is subject to disciplinary action up to and including suspension.
Cell Phones	<i>Please turn off all cell phones and other wireless communication devices while in the classroom.</i>
Entertainment devices	<i>Please also refrain from using personal entertainment devices during class.</i>
A/V Recording	<p>With prior approval, students may be allowed to audio/video record lectures to enhance their understanding of the topics presented. NOTE: You must complete the Agreement Form BEFORE recording lectures. Click to view and print the AUDIO/VIDEO RECORDING LECTURE AGREEMENT. Audio/video recordings are not substitutes for attending class. If you choose to record lectures, you must sign an agreement which lists the following terms:</p> <ul style="list-style-type: none"> • Recordings are not to be distributed without the permission of the instructor. This includes sharing via the Internet, peer to peer file sharing, or other methods. • Recordings are not to be shared with other classmates unless they are to be used in collaborative assignments, or if the instructor approves sharing for other reasons. • You will turn off recorders at the request of instructor. <p>Non-compliance with these terms violates an instructor's intellectual property rights. Students violating this agreement will be subject to disciplinary actions under the <i>Student Code of Conduct</i>.</p>

We, instructor and student, agree to abide by the contents of this syllabus.