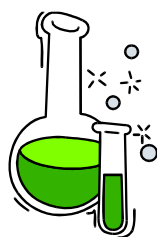


Fall 2022



**CHM 151\*\*\* General Chemistry I ( Section 29326)**

**3 credit hours**

INSTRUCTOR: Dr. Paul Gilletti

EMAIL: [gilletti@mesacc.edu](mailto:gilletti@mesacc.edu)

Or [paudy84101@mesacc.edu](mailto:paudy84101@mesacc.edu)

OFFICE: Building 15 PS-209 Appointments are necessary due to Covid.

PHONE: Office 480.461-7685

**Web Page:** <https://gillettichemistry.com> (Many of my Powerpoint presentations, assignments and old quizzes and exams are available) This site must be accessed off campus, on campus internet will not access this website.

**\*\*All information here is subject to change as needed or required.**

**Office Hrs PS-209:** Monday 10:30-11:20, Tuesday 10:30-11:20, Wednesday 2:00-2:50, Thursday 3:00-3:50, (**Friday 10:30-11:20 by appointment only**). To make an appointment, email me through canvas at [paudy84101@mesacc.edu](mailto:paudy84101@mesacc.edu) . Please indicate your questions and/or problems and times during which you will be available. If possible, a screenshot of your question may help. I will respond as soon as possible with an appointment. Conferences can then be setup **On-line (Webex or Zoom)**.

**REQUIRED TEXT:** The book we will use is **free online** at:

<https://openstax.org/details/books/chemistry-2e> Click on the **Chemistry 2e** book (not the one that says atoms first). If you wish, a hard copy can be ordered for around \$53. We will cover the first 11 chapters in CHM151. CHM152 uses the second half of the book.

I will always assume that you READ the material, but I won't assume you will understand everything you read. I will try to clarify the material, but reading is a very important part of becoming educated and preparing you for your career.

A Calculator with scientific notation (log, ln, x<sup>Y</sup>) is also required.

The lecture classes will be in person. **Your attendance is expected.** (I may also try to record and post each class session in canvas announcements.)

**Computer requirements:** To get information about the minimum requirements for the computer set up and access some helpful resources and tips to help you get prepared for an online class, please follow this link: <https://www.mesacc.edu/online/get-started>

**OFFICE 365** is available as a free download with your student ID number and it contains the full version of excel, Word, and PowerPoint. To download Office 365 start on this link:

[https://mesacc.edusupportcenter.com/sims/helpcenter/common/layout/SelfhelpArticleView.seam?inst\\_name=mesa&article\\_id=1796-1327417](https://mesacc.edusupportcenter.com/sims/helpcenter/common/layout/SelfhelpArticleView.seam?inst_name=mesa&article_id=1796-1327417) There are versions for Windows and Macs.

**Tutoring:**

The Learning Enhancement Center (LEC) is excited to inform you that tutoring services will resume on campus this semester! We will offer both in-person (**by appointment**) and online (drop-in) tutoring. You can access all information regarding our services and schedules at our website, [www.mesacc.edu/students/tutoring](http://www.mesacc.edu/students/tutoring).

### **Virtual Online Tutoring:**

For students who are unable to use our on-campus services, our [Virtual Tutoring Center](#) **will continue to offer** drop-in tutoring (so no appointment is necessary!). Our online tutoring is conducted through Cranium Cafe, where students can have video meetings and instant chats with tutors, upload and collaborate on documents, and organize your thoughts with a virtual whiteboard. To meet with a tutor in the Virtual Tutoring Center, visit <https://www.mesacc.edu/online-tutoring>. Additional Online Tutoring is available for all MCC students through Brainfuse (24/7 availability). Students are limited to 10 hours of online tutoring per semester using this platform.

### **On-Campus Tutoring**

For those who are on campus, we highly encourage making use of our **in-person appointments**, as they provide face-to-face tutoring in safe learning spaces. Appointments for in-person tutoring will be available beginning August 23. All appointment slots are 25 minutes, unless otherwise noted by the center. Students can book a second appointment immediately after concluding a tutoring session. To book a tutoring appointment, visit <https://tutortraclec.mesacc.edu> and follow the prompts on the screen. Instructions are also attached to this email.

Locations, student resources, and some appointment procedures vary by center. Please note these specific details as you book your appointment with the center that meets your tutoring needs.

At times, you will participate in the course using Canvas learning management system. To log into Canvas go to the MCC webpage, click on the Canvas tab, and log in using your MEID and password. **You must provide the same first and last name in Canvas as the one on the official class roster in SIS. NO NICKNAMES OR PSEUDONYMS!** Check out this [Canvas Tutorial](#) to get familiar with the platform.

**Canvas download to upload assignments:** Some of your assignments must be scanned and uploaded into canvas. I prefer them as single files, either Word documents or scanned pdf files. If you download a free scanning app such as Adobe Scan on your smart phone, you can scan a document using your phone's camera in pdf format (you must put multiple pages in **one** document by using the continue button and scanning the next page(s)). Then after naming and saving the file, you can upload it using the canvas app directly into canvas. In the app store for your cell phone, there is a free **Canvas** app that can be linked to your canvas account through your cell phone. This app makes uploading a file easy.

**NETIQUETTE:** It is important to understand how to interact with one another online, netiquette. You can read more about it here [Rules of Netiquette](#).

**Statement of Student Responsibility:** As a registered student in this class, it's your responsibility to know and understand the contents of this syllabus. Ask if you have any questions! Every student attending Mesa Community College is expected to know and comply with all current published policies, rules, and regulations as printed in the college catalog, class schedule, and/or [MCC 2020-2021 Student Handbook](#)

I plan on giving most of the exams and quizzes during the regularly scheduled class times. I will usually announce the quiz times one class session before the quiz. I will announce exams one week in advance.

Some of the assignments and quizzes will have to be worked out on paper and scanned in pdf format to upload in canvas. Refer to the canvas app mentioned above.

**HOMEWORK: 3 bonus points will be awarded for each chapter (details are provided in the homework assignment document).** I strongly suggest you keep a spiral notebook to work the assigned end of the chapter problems. The problems I have assigned have answers at end of the book to allow you to check your answers. The problems should be worked in organized detail to provide you with a study guide in preparation for quizzes and exams. You should work homework **at the pace of the class** to be well prepared. Homework improves knowledge retention and improves scores.

**CELL PHONES: MAY NOT BE USED DURING QUIZZES OR EXAMS and Should not be used during class times.**

**There are practice tests on the Internet (These are for different books, but each of them contains practice quizzes, tests and other material). Links are provided below.**

**Silberberg Book (4<sup>th</sup> edition):** This site provides practice quizzes that are graded online and other learning aides:

[http://highered.mcgraw-hill.com/sites/0072396814/student\\_view0/index.html](http://highered.mcgraw-hill.com/sites/0072396814/student_view0/index.html)

9<sup>th</sup> Ed of Brown and Lemay. This contains practice quizzes and exams that are graded online. It is good practice for quizzes and exams.

[https://wps.prenhall.com/esm\\_brown\\_chemistry\\_9/](https://wps.prenhall.com/esm_brown_chemistry_9/)

**ATTENDANCE:** Attendance will be taken each class period and a withdrawal (W/Y) **MAY** be initiated after three consecutive absences. Withdrawal from class is the student's responsibility. See the current Mesa Community College catalog and paragraph below for withdrawal procedures. It is my experience that attendance and class performance are very closely related, arrive prepared and on time each day. If you do not take the final exam, you will be given a withdrawal.

**WITHDRAWAL:** See your student schedule in *my.maricopa.edu* for the Last Day to Withdraw without an Instructor Signature for each class in which you are enrolled (This is the first seven weeks from when the class started). After that time your instructor's signature is required. (Refer to the Important Deadlines for Students to determine the Last Day Student Initiated Withdrawal will be accepted.) . Either a withdrawal passing (W) or a withdrawal failing (Y) may be given, based upon student performance\*\*\*. If for any reason you need to withdraw from the class, please see or email me.

**STUDY HABITS AND WORK ETHIC:** This is a rigorous class. It requires a great deal of time to master the material covered in this course. Students who attend class regularly and work assigned problems have a much greater success rate. It is strongly suggested that you study a **MINIMUM** of **two to three** hours for every lecture hour. If your background is weak, you should plan on spending more time. **DO NOT GET BEHIND. Please contact me if you are having difficulty.** Remember many of you are going to take more chemistry classes in the

future, so you must work to understand and retain the material. **I also recommend forming study groups, which can even be done online with zoom, webex or some other platform.** Please contact me if you are having difficulty or get tutoring.

**ACADEMIC DISHONESTY POLICY:** See the current MCCC student handbook on the academic dishonesty policy. Academic dishonesty may include: representation of the work of other's as one's own, use of unauthorized assistance in academic work, failure to cite sources used, copying the work of another student on any form of a test, helping others cheat, etc. Repercussions can be found in the student handbook and range from a warning to dismissal from the course with a failing grade.

**STUDENTS WITH DISABILITIES:** Students with disabilities must have an equally effective and equivalent educational opportunity as those students without disabilities. Students experiencing difficulty accessing course materials because of a disability are expected to contact the course instructor so that a solution can be found that provides all students equal access to course materials and technology.

**Information for Students with Disabilities:** If you have a documented disability, including a learning disability, and would like to discuss possible accommodations, please contact the MCC Disabilities Resources and Services Office at **480-461-7447** or email **[drsfrontdesk@mesacc.edu](mailto:drsfrontdesk@mesacc.edu)**.

**Information for Pregnant or Parenting Students:** If you are a pregnant or parenting student you are protected under Title IX regarding classroom accommodations. Please request your accommodations through the MCC Disabilities Resources and Services Office at **480-461-7447** or email **[drsfrontdesk@mesacc.edu](mailto:drsfrontdesk@mesacc.edu)**.

Mandatory DRS and Title IX Syllabus Statements:

The following link will take you to the MCCC district policy statements.

<https://district.maricopa.edu/mandatory-drs-title-ix-syllabus-statements>

### **EARS (Early Alert Referral System)**

#### **MCC Early Alert Program (EARS)**

Mesa Community College is committed to the success of all our students. Numerous campus support services are available throughout your academic journey to assist you in achieving your educational goals. MCC has adopted an Early Alert Referral System (EARS) as part of a student success initiative to aid students in their educational pursuits. Faculty and Staff participate by alerting and referring students to campus services for added support. Students may receive a follow up call from various campus services as a result of being referred to EARS. Students are encouraged to participate, but these services are optional.

Early Alert Web Page with Campus Resource Information can be located at:

<http://www.mesacc.edu/students/ears> or locate the "Early Alert" selection at the "mymcc" link from MCC's home page.

## **Face Coverings Rule**

In accordance with the Maricopa County Community College District (MCCC) policy (per Chancellors emails 2022):

Face coverings are encouraged, but not required for staff, faculty, students, and guests inside all Mesa Community College (MCC) buildings.

Please provide respect and support for all individuals no matter what their masking choice may be. MCCCCD understands that all individuals – employees, students, and community members – may feel safer or more comfortable wearing a face covering.

### **Covid Reporting Requirements**

Members of the Maricopa County Community College District (MCCCCD) community must notify Risk Management if they are diagnosed with COVID-19 or if they believe they have been exposed to COVID-19. This includes students who are enrolled in either in-person, hybrid (in-person and online combination) and/or online classes at Mesa Community College.

Your personally identifiable information, including name, address, and medical conditions will remain confidential and will not be shared with instructors, other students, or staff but your information may be shared with local health authorities as permitted under the ADA. For more information and/or to submit a COVID report, visit: <https://together.maricopa.edu/health-safety/covid-19-reporting>

### **Online Tutoring by Brainfuse**

All MCC students have access to 10 (ten) hours of free online tutoring by [Brainfuse](#) in multiple sessions throughout the semester by choosing an option below:

- Live Help – Receive instant support for various subjects
- Writing Lab – Have your writing reviewed by a tutor
- Offline Questions – Send a tutor an academic question.
- And More!

### **Learning Enhancement Center**

We care about your success! In addition to meeting with your instructor, as an MCC student you are encouraged to use FREE tutoring and other support services in the Learning Enhancement Center (LEC).

Visit one of nine LEC locations to reinforce your understanding of course concepts and improve performance in your course(s). Fall 2020 semester: our highest priority during the COVID-19 crisis is the health, safety, and well-being of all students, faculty, and staff; thus, our services can be accessed online.

To connect to with a tutor, and for a full list of subjects, visit <https://www.mesacc.edu/students/tutoring/tutoring-online>

### **Student Resource Referral Guide**

If you need support with academic or basic needs at MCC, such as tutoring and transportation issues, there are resources available to assist you. MCC has compiled a list of them, which can be found in the following link: Student Resource Referral Guide.

<https://www.mesacc.edu/get-help>

## **Counseling Services**

The Counseling Department at Mesa Community College provides a variety of counseling services to assist students in addressing their personal, academic, career development, prevention, and intervention challenges. Confidential services are offered free of charge to students. Counseling faculty support and empower students in the process of setting and attaining their academic, career, and personal goals. To schedule an appointment to meet with a counselor call:

MCC S&D (480) 461-7588

MCC Red Mountain (480) 654-7720

Visit [www.mesacc.edu/departments/counseling](http://www.mesacc.edu/departments/counseling) for more information

## **Recommendations for Academic Success**

Students do not fail at the end of the semester. If a student is failing in the last week, it is because of what he or she has done throughout the semester. Keep up with the work. Keep track of your points and percentage in the class. Keep track of assignment due dates on the course calendar. Remember, you cannot complete all the assignments in the last few days of the semester.

**DATES:**

Labor Day Monday, Sept. 5.....NO CLASS  
Veterans Day Friday Nov. 11.....NO CLASS  
Thanksgiving Nov. 24-27.....NO CLASS  
LAST DAY OF CLASSES: December 11

**FINAL EXAM: MWF, 9 a.m. class Monday December 12th ...9:00-10:50 am**

The final exam is comprehensive over the material in the eleven chapters we will cover.

**GRADING POLICY:**

At least 9 quizzes worth 25 points each will be given and the 8 highest scores will be counted. **10 to 15 minutes will be allowed for each quiz.** I will usually announce a quiz on period in advance. Most will be taken in class.

3-4 exams\*---100 points each will be given. Times will be announced at least one week in advance as course dictates.

\*Bonus Points:0-6 Points will be given for homework in homework notebook, added at the time of each exam to your total class points.

Final examination--200 points (comprehensive ACS final).

A	B	C	D	
90-100%	80-90%	70-80%	60-69%	(of <b>HIGH TOTAL</b> i.e. curved from highest student total less bonus pts.)

NO Quizzes or exams will be given after the scheduled times. Extraordinary circumstances may dictate otherwise.

\*\*\*This is the first of a two-semester course, providing a detailed study of the principles of chemistry for science majors and students in pre-professional curricula. Prerequisites: CHM 130 and CHM 130LL or one year high school chemistry and completion of intermediate Algebra or the equivalent.

\*\*\* **Lab is a separate one-credit (CHM 151LL) course.** Unless previously taken, a student must be enrolled in a lab.

**COURSE COMPETENCIES:** Available on the Internet

<https://curriculum.maricopa.edu/curriculum/courses/search-course-bank?course=CHM151>

**General Information:** (we will cover chapters 1-11 CHM151)

**Suggestions for homework:** Keep worked problems in a SEPARATE, homework only, thin spiral or stitched composition type. Write in the starting time (and date) and ending time of each problem working session to help you in "time tracking". When working problems you should show as much detail as possible including writing notes to yourself and reference pages so studying at test time becomes a review and your homework notebook is your study guide.

Hint: When solving problems always determine what is being asked first and its units (and if necessary, its place in a formula), then what is given and its units (and if necessary, how it fits in a formula), and finally convert what is given into what is desired to solve the problem.

Answers to some chapter problems are located near the end of book. I also recommend you look over the **appendixes** so you will know where to find information as needed. There is a MATH REVIEW in the appendixes (consult when necessary).

**Suggested Problems CHM151 Spring 2022.** All of the problems have their answers in the back of the book. Online book link: <https://openstax.org/details/books/chemistry-2e> Each chapter is worth 2 bonus points when turned at the time of the exam covering that chapter. The time of the exam and due date of the homework will be announced 1 week in advance. Times will be determined at the pace and progress of the class.

**Chapter 1:** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

Suggested Problems: 11, 17, 25, 27, 31, 35, 45, 47, 49, 51, 53, 57 (This is how conversion factors are made.), 59, 63 (see 59), 65, 67, 69, 71a-e, 77a&b, 81, 87, 91, 93, 95.

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**Chapter 2:** Read the chapter. . Look over Key terms and Key Equations. Read through the end of chapter summary.

Suggested Problems: 5, 11, 17, 19 a&b, 27, 29, 31 a&b, 37, 39, 43 a&b, 47, 49, 51, 53, 55, 57, 59.

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**Chapter 3:** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

Suggested Problems: 5, 13, 17, 18, 33ab, 37, 39, 41, 47abc, 51ab, 59, 61, 63.

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**Chapter 4:** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

Suggested Problems: 3, 5ab, 11, 13, 17 (see REDOX PowerPoint for help:

<https://gillettichemistry.com/CHM151/Redox.pptx> , 43, 47, 53, 63,67, 71, 76, 78, 79, 81, 89.

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**Chapter 5 Thermochemistry.** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary. You will use **table G** in the back of the book for many of the problems requiring  $\Delta H^\circ$  of formation values.

Suggested problems: 3, 7 (you will need specific heat of ice, heat of fusion of ice and the specific heat of water), 9, 11, 21 ( $^\circ\text{C} = 5/9(^\circ\text{F} - 32)$ ), 25, 31 ( $\Delta H_{\text{H}_2\text{O}} + \Delta H_{\text{calorimeter}} = \Delta H_{\text{reaction}}$ ), 37, 41, 45 (start with the balanced combustion reaction equation), 47 ( $\_\_ \text{C}_8\text{H}_{18} + \_\_ \text{O}_2 \rightarrow (\ ) + (\ )$ ), (Use Hess's law for each of 59, 63,69), Use appendix G for 69,75,77, 81.

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**Chapter 6** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

Key equations ( $k = 2.179 \times 10^{-18} \text{ J}$ ,  $Z = \text{atomic number}$ )



Suggested problems: 3, 5 (find E the convert J to eV's), 9, 17, 23 look at example 6.4, 27 look at example 6.5, 35, 49 a→d, 53, 55, 57, 59, 63, 67, 69, 71, 73, 75, 77, 79, 81.

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**Chapter 7: Chemical bonding and molecular geometry:**

Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

Suggested Problems: 1, 5 7a→f, 13, 15, 21, 23a→d, 29a→g, 31 a-c, 39 a&b, 41, 45 a,b,d, 47, 51, 55b&c, 59, 65, 77, 87, 89, 91, 95 d&e. 99, 113.

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**Chapter 8:** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

**Suggested problems Chapter 8:** 1, 7, 9, 11, 15, 17, 21, 25, 27, 29, 35.

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**Chapter 9: (Gas Laws)** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

Suggested Problems: 5, 7, 19, 25, 27, 29, 31, 33, 35, 39, 41, 47, 49, 53, 57, 59, 65, 67, 75, 81, 85, 101.

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**Chapter 10 (Liquids and Solids):** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

**Suggested Problems:** 7, 9, 11 (try to give the your reasoning), 13 (Look at the Lewis structures  $C_4H_{10}$  and  $C_2H_5Cl$ ), 15, 19 (you may have to look at the answer to understand this one), 21, 23, 27, 31, 35, 39, 41, 43, 45, 49, 51, 57, 61, 65, 67, 69, 71.

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**Chapter 11:** Read the chapter. Look over Key terms and Key Equations. Read through the end of chapter summary.

Suggested Problems: 1, 3, 5, 7, 9, 13, 15, 33a&b, 35, 43 you will need  $\Delta K_b$  of water, 45 you will need  $\Delta K_f$  of water, 53, 61.

# PERIODIC TABLE OF THE ELEMENTS

1A											8A						
1 <b>H</b> 1.008												2 <b>He</b> 4.003					
2A												3A	4A	5A	6A	7A	
3 <b>Li</b> 6.941	4 <b>Be</b> 9.012											5 <b>B</b> 10.81	6 <b>C</b> 12.01	7 <b>N</b> 14.01	8 <b>O</b> 16.00	9 <b>F</b> 19.00	10 <b>Ne</b> 20.18
11 <b>Na</b> 22.99	12 <b>Mg</b> 24.31											13 <b>Al</b> 26.98	14 <b>Si</b> 28.09	15 <b>P</b> 30.97	16 <b>S</b> 32.07	17 <b>Cl</b> 35.45	18 <b>Ar</b> 39.95
		3B	4B	5B	6B	7B	8B				1B	2B					
19 <b>K</b> 39.10	20 <b>Ca</b> 40.08	21 <b>Sc</b> 44.96	22 <b>Ti</b> 47.88	23 <b>V</b> 50.94	24 <b>Cr</b> 52.00	25 <b>Mn</b> 54.94	26 <b>Fe</b> 55.85	27 <b>Co</b> 58.93	28 <b>Ni</b> 58.69	29 <b>Cu</b> 63.55	30 <b>Zn</b> 65.39	31 <b>Ga</b> 69.72	32 <b>Ge</b> 72.61	33 <b>As</b> 74.92	34 <b>Se</b> 78.96	35 <b>Br</b> 79.90	36 <b>Kr</b> 83.80
37 <b>Rb</b> 85.47	38 <b>Sr</b> 87.62	39 <b>Y</b> 88.91	40 <b>Zr</b> 91.22	41 <b>Nb</b> 92.91	42 <b>Mo</b> 95.94	43 <b>Tc</b> (98)	44 <b>Ru</b> 101.1	45 <b>Rh</b> 102.9	46 <b>Pd</b> 106.4	47 <b>Ag</b> 107.9	48 <b>Cd</b> 112.4	49 <b>In</b> 114.8	50 <b>Sn</b> 118.7	51 <b>Sb</b> 121.8	52 <b>Te</b> 127.6	53 <b>I</b> 126.9	54 <b>Xe</b> 131.3
55 <b>Cs</b> 132.9	56 <b>Ba</b> 137.3	57 <b>La</b> 138.9	72 <b>Hf</b> 178.5	73 <b>Ta</b> 181.0	74 <b>W</b> 183.8	75 <b>Re</b> 186.2	76 <b>Os</b> 190.2	77 <b>Ir</b> 192.2	78 <b>Pt</b> 195.1	79 <b>Au</b> 197.0	80 <b>Hg</b> 200.6	81 <b>Tl</b> 204.4	82 <b>Pb</b> 207.2	83 <b>Bi</b> 209.0	84 <b>Po</b> (209)	85 <b>At</b> (210)	86 <b>Rn</b> (222)
87 <b>Fr</b> (223)	88 <b>Ra</b> 226.0	89 <b>Ac</b> 227.0	104 <b>Unq</b> (261)	105 <b>Unp</b> (262)	106 <b>Unh</b> (263)	107 <b>Uns</b> (262)	108 <b>Uno</b> (265)	109 <b>Une</b> (266)									

58 <b>Ce</b> 140.1	59 <b>Pr</b> 140.9	60 <b>Nd</b> 144.2	61 <b>Pm</b> (145)	62 <b>Sm</b> 150.4	63 <b>Eu</b> 152.0	64 <b>Gd</b> 157.3	65 <b>Tb</b> 158.9	66 <b>Dy</b> 162.5	67 <b>Ho</b> 164.9	68 <b>Er</b> 167.3	69 <b>Tm</b> 168.9	70 <b>Yb</b> 173.0	71 <b>Lu</b> 175.0
90 <b>Th</b> 232.0	91 <b>Pa</b> 231.0	92 <b>U</b> 238.0	93 <b>Np</b> 237.0	94 <b>Pu</b> (244)	95 <b>Am</b> (243)	96 <b>Cm</b> (247)	97 <b>Bk</b> (247)	98 <b>Cf</b> (251)	99 <b>Es</b> (252)	100 <b>Fm</b> (257)	101 <b>Md</b> (258)	102 <b>No</b> (259)	103 <b>Lr</b> (260)

**I recommend you fill this out for you own use Student Study Schedule**

Use this schedule to plan your week. Schedule chemistry and other classes or labs. Allow two to three study hours between each chemistry lecture before the next lecture occurs. Allow study time for all classes and labs. Then include work, travel time, family time, meals, sleep, exercise, etc. Remember you NEED SLEEP.

Time	Monday	Tuesday	Wednesday	Thursday	Friday
5-6					
6-7					
7-8					
8-9					
9-10					
10-11					
11-12					
12-1					
1-2					
2-3					
3-4					
4-5					
5-6					
6-7					
7-8					
8-9					
9-10					
10-11					
11-12					

**WEEKEND STUDY TIMES. DON'T WASTE FRIDAY AFTERNOON AND EVENING AS WELL AS SATURDAY AND SUNDAY.**



