I. Call To Order
The meeting was called to order at 12:00 on January 21, 2015 in Room 2502. Dr. Will Lynch presided.

II. Approval of Minutes
The Minutes from November 19, 2014 were approved as presented.

III. New Business
A. University Engagement Committee
The first thing Dr. Baird shared was the definition the committee came up with of “student engagement”, which is “Things you do to get students to invest psychologically in the learning process”.

The job of the committee is first and foremost to direct resources to the things that work and in order to find out that members of the committee will be visiting department meetings and asking the following questions:

1- What are the current high-engagement practices?
2- What would you put on a “wish list” for resources?
3- Is there a means of assessment of these practices?
4- What senior-level class would be an appropriate place to ask soon-to-be-graduating students about what has worked for them?

Dr. Baird did get answers to the four questions and he will be typing up all the responses given today and will send them to everyone in order to get further input.

B. Faculty Senate Update
The Faculty Senate will be meeting on Monday, January 26, so there is nothing to report at this time.

C. Planning Budget and Finance
1. Dr. MacGowan asked the faculty to be thinking about questions they may want to ask the Planning, Budget and Finance Committee. She shared that the new CFO seems to be open and receptive to faculty inquiries and responses.

D. General Chemistry Committee
Dr. Lea Padgett briefly summarized what took place during their last meeting. Among the topics decided was that once General Chemistry lecture and lab are split into two courses in Fall 2015,
students repeating the course must enroll for both lecture and lab. Students will not be given credit for the merged lab as a separate credit. Also, the curriculum items regarding this split passed by the University Curriculum Committee and the Faculty Senate and are not anticipating any problems.

The General Chemistry Committee Minutes as well as the draft of the committee’s objectives are attached for your convenience and you may refer to Attachment #1 for more details.

The faculty voted unanimously to approve both documents as a whole.

E. Summer 2015 – UG Research Support Up-date
Dr. Lynch briefly updated the faculty regarding last year’s Summer Research Session, which funded 20 faculty members and encouraged them to think about the upcoming summer session now that STEP is no longer available.

IV. Old Business
A. Search Up-dates for 2015
i. Organic Chemistry Tenure Track
The Organic Chemistry search committee will be meeting this coming Wednesday, January 26 to decide on the candidates that will be invited to visit campus. Most likely, campus visit will begin around the middle of February.

ii. Biochemistry Tenure Track
The Biochemistry search had two (2) candidates visit campus and there is one more pending at the end of the month. Immediately after this last visit, the search will be moving to its next phase.

B. Budget Up-date
The department is still in pretty good shape regarding the budget. Most of the travel plans are already in. We had a few people interested in participating in some of the NSF sponsored workshops. The department will try to hold back some money to use towards the ongoing searches if necessary for start-up funds.

C. Spring and Summer Course Enrollments
Spring enrollments were solid. Currently Summer is really low but we are hopeful that this will change in the short term. We will do our best to try to give everyone a course to teach during the summer, so please let Dr. Lynch know if you are planning to teach during the summer and your preferences.

D. Fall 2015 – Course Offerings @ upper level
Both the Chemistry and Physics faculty need to inform Dr. Lynch about the upper level courses they plan to teach during the upcoming Fall 2015 semester. Regarding Biochemistry, the department will need at least one or two related courses taught.

Dr. Lynch commended the faculty on the 8 current research and scholarship grants funded and encouraged them to keep up the good work. He, also, congratulated Ms. Mullenax on her three Teacher funded grants and Dr. Wallace on his upcoming Science on Tap.

VI. Announcements
A. Announcements –
   i. Cathy, CGACS – Jan 30/2015 in room 2001 at noon.
ii. Science on Tap – Feb 12/2015 @ Savannah Coffee Roasters @ 6pm.

iii. Pirate Preview – Feb. 21, April 11, 1045-1145 am.

iv. Science Bowl – Jan 31 (HS); Feb 7 (MS); Feb 28 (States)

B. Student/Faculty News

i. TQ Grants –
   a. Donna Mullenax “Georgia Barrier Islands Workshop” (Funded), “Georgia Rocks and Minerals” (Funded), “Georgia Landforms Workshop” (Funded)

   ii. Research & Scholarship Grants
      a. Brandon Quillian - "Preparation of Bis (Mathimazoly) Acetate Ruthanium (11) Compounds for Anti-Cancer Screening"
      b. Sarah Zingales - "Design and Synthesis of Chalcone Analogs as Anti-Cancer Therapeutics", $1999.75
      c. Mitch Weiland - "Using Perfringolysin-O Chimeras to Identify the TMH1Region within Human Perforin", $1950
      d. Sarah Gray - "Determining Inorganic Carbon Variability in the Savannah River and Tributaries During the Savannah Harbor Expansion Project", $1914.80
      e. Nicole Davis - "Preparation of Noxo 1B and Noxo 1y Expression Vectors" $1360
      f. Gary Gullet - "Novel Molecules Inspired by Enzymes for Promoting Chemistry with Stable Molecules Like Carbon Dioxide", $1993.91
      g. Catherine MacGowan - "Soil Analysis of Providence Canyon" $1735.00
      h. Cliff Padgett - "Oxygen-Iodine Halogen-Bonding Interactions via N-Oxyheterocycles and Organioiodine Compounds", $1000.00

ii. Jonathan Groover, Started PhD program at University of Florida, Jan. 2015, working with Dr. Stewart.

iii. Blair Weaver, accepted to Emory and Florida for PhD in Biochemistry.

iv. Ryan Olliff, UGA Pharmacy School

Adjournment – The meeting was adjourned at 12:55pm.

cc: Dr. Jane Wong, Interim Dean, College of Science and Technology
    Dr. Brent Feske, Interim Assistant Dean, College of Science and Technology
Attachment #1

General Chemistry Meeting
Minutes
11 December 2014


1. The General Chemistry objectives were reviewed and minor edits made to reflect the current class and text. These are attached.

2. A policy document for all instructors teaching general chemistry was drafted. This is attached.

3. Standardized ways to adjust the ACS exam scores were discussed and correct statistical ways to do this will be presented at the next meeting.

4. It was decided that once lecture and lab are split into two courses in Fall 2015, that students repeating the course must enroll for both lecture and lab. Students will not be given credit for the merged lab as a separate credit.

5. The curriculum items regarding splitting the lecture and lab and changing the math prerequisite were passed by the University curriculum committee and the faculty senate. They await approval by the president.

6. D2L will be used to host the lab materials for spring 2015 rather than Mastering Chemistry.

7. Once data has been collected and analyzed, Lea will be sharing the results of the recitation section offered in Fall 2014.

8. We discussed whether we wanted to evaluate new books or homework systems for the 2015-16 academic year, including whether we should consider the Board of Regent’s suggestions toward open source materials. No decisions were made regarding these topics, although the point was raised that assessment of the curriculum changes would be easier without changing any other facets of the course.
1. All instructors will use the textbook chosen by the General Chemistry Committee.
2. Course content covered must be consistent with the objectives set by the General Chemistry Committee.
3. The online homework system must be utilized toward the final course grade to a minimum of 10%.
4. The ACS standardized exam will be used at the end of the course and must count between 10 and 15% of the course grade.
Objectives:

By the end of General Chemistry 1211 – the student should be able to demonstrate an understanding of and application of:

1) Apply mathematics to chemical problem-solving such as dimensional analysis, scientific notation, and significant figures.
2) Explain atomic theory of matter to include the Bohr and quantum mechanical models, electron configurations, the use of the periodic table, and states of matter.
3) Identify the chemical formulas and names of common ions and elements.
4) Demonstrate an understanding of ionic reactions in aqueous solutions and be able to predict the products of metathesis reactions and assign oxidation numbers.
5) Explain the concept of the mole and its applications to stoichiometry in chemical problem-solving such as mole conversions, molecular/empirical formulas, and molarity.
6) Discuss kinetic theory of gases and gas laws and perform related calculations.
7) Perform calculations involving energy changes in chemical reactions using specific heats, heat capacities, enthalpy, and Hess’ Law.
8) Demonstrate an understanding of the relationship among energy, wavelength, and frequency of light.
9) Draw Lewis structures for elements, ions, and simple compounds and use VSEPR Theory to predict the geometry and properties of polyatomic ions and simple compounds.
10) Use bond theories to explain simple chemical bonding.

By the end of General Chemistry 1212 – the student should be able to demonstrate an understanding of and application of:

1. Explain various intermolecular attractions in molecules and their effect on physical properties.
2. Various definitions of solution concentrations
3. Concept of colligative properties
4. Concept of reaction kinetics
5. Laws and concepts of Thermodynamics such as Gibb’s Free Energy, Entropy & Enthalpy
6. Concepts of chemical equilibria including Le Chatelier’s Principle, the pH of acid/base solutions, buffer solutions, salts and solubility.
7. Concepts of electron-transfer reactions related to galvanic and electrolytic processes.
8. Fundamentals of Nuclear chemistry