I. Call To Order: The meeting was called to order at 12:00 on December 6, 2011 in Room 2502. Dr. Will Lynch presided.

II. New Business
A. The Minutes from October 19, 2011 were approved as presented.

B. Faculty Senate – Dr. Baird shared the following:

1. Summer 2010/2011 Profit Sharing. The data collected and presented by the ad-hoc committee was quickly dismissed by the administration as Dr. Thompson called the Senate’s attention to a document attached to an e-mail sent to Dr. LeFavi earlier that morning from which she read, entitled Summer Revenue Sharing Explanation. According to the data presented by Dr. Thompson regarding the summer profit sharing, there is $200,000 that would be split among the four colleges. So far, there are no decisions made as to how the amount allotted to the College of Science and Technology will be distributed.

The general consensus from the Senate is that the administration has not been forthcoming and transparent as they said they would in regards to this issue. The Planning, Budget and Facilities Committee is planning to spend some more quality time to try to determine how the budget arrived to the data presented by the administration.

2. Report on Student government Association resolution on university grading policy. Dr. LeFavi invited SGA President Ty Slater to introduce the SGA resolution. Mr. Slater explained that the SGA respects the process by which the university arrived at the new grading policy but pointed out that the SGA was concerned that students were not adequately consulted during the process and was hoping that the policy would be amended before its implementation. Dr. Thompson emphasized the fact that it was already too late to change the implementation of the new grading policy.

3. Up-date on revised Faculty Handbook. Dr. Kraft presented the Faculty Handbook to the Senate for its response and asked Dr. Tatlock to disseminate the file to senators for official comment on the January 2012 meeting. Ms. Carpenter took the opportunity to encourage everyone to address any concerns regarding the Faculty Handbook. She, also,
commended both Drs. Baird and Padgett for their tenacity as they represent us in this capacity in the Senate. She added that Dr. Mateer is very interested in putting forth a resolution in January to re-establish the activity period from 12 – 1pm. The Department of Chemistry and Physics is in favor of re-establishing that period of time, we currently observe that time period.

Dr. Lynch informed us that Ms. Carpenter will be rolling off the Faculty Senate and that we will need a replacement for her seat as well as the election of three alternates by January 2012.

C. Committee Reports
   i. Planning Committee. Dr. Hizer distributed copies of the Planning Committee Minutes. Dr. Hizer called our attention to item 3. The committee shared their consideration to acquire an on-line literature search engine to be in compliance with ACS guidelines. The committee is recommending the department to subscribe to the Scifinder “6 for 3” plan and to the Scifinder Substructure Module (SSM) as well. The annual cost is $6,540. A recommendation was made to raise the student laboratory fee from $40 to $45 to cover this cost.

   The faculty voted unanimously in favor of acquiring the Scifinder but decided to re-visit the matter regarding raising the student laboratory fee. You may refer to attachment #1 for more details.

   ii. Safety Committee – Ms. Roach informed us that there were a few minor changes in the Safety Practices Policy and submitted them for voting consideration. The changes are as follow:

   a. Under Student Responsibilities, item #2 regarding the use of safety goggles, the wording was changed to give a specific description of what safety goggles are.

   b. Under Accident and Emergency Procedures, both items 1 and 2 were modified to, also give a more detailed information as to what procedures to follow.

   c. Under Medical or Hospitalization Insurance Information, the word guardian was deleted leaving it to read that any medical expenses are solely the responsibility of the student.

   d. It was emphasized that it is imperative that the safety rules be enforced.

The faculty voted unanimously in favor of the policy changes. Please refer to attachment #2 for more details.

D. FERPA – Ms. Carpenter encouraged everyone to get information regarding students rights under FERPA. FERPA stands for Family Educational Rights and Privacy Act of 1974. You may find this document in the Registrar’s Office website. Ms. Carpenter explained how the faculty is directly affected because as faculty they are not supposed to discuss students’ academic performance with anyone unless having a written consent
from the student. The written consent should include the name of the person you can
disclose the information to and the specific information to be disclosed.

E. Budget 2011-2012 – Dr. Lynch urged everyone to submit their spring orders to Dr.
Lea Padgett so that we can start getting our budget in line.

The Department will proceed with the purchase of the FPLC instrument. The Biology
Department will be supporting us with the purchase of this instrumentation.

F. CST Dean Search Up-date
The CST Dean job posting has been placed on the Armstrong web. We will be hearing
more about this approximately in mid February 2012. We do have a Provost now but we
are yet to learn what his role will be regarding this search.

G. Tenure Track Analytical Chemistry Search
Dr. Clifford Padgett informed us that the search committee is currently looking at the
applications and is planning to begin interviewing candidates in January or February
2012.

H. Faculty Lines
The department will have the same number of faculty lines that we currently have with
the exception of one of the temporary lines converting to the analytical tenure track. This
will leave us with three temporary lines on the chemistry side and one temporary line on
physics side. Unfortunately, the physics situation does not appear very hopeful beyond
next year because of the loss of 65 GA TECH students.

I. Whiteboards
The 3 whiteboards for rooms 2502, 2503 and 2504 are here on campus and will be
installed shortly during the break.

J. NMR
The NMR will be here early tomorrow morning. A volunteer is needed to look onto it
while Dr. Lynch is in a meeting so installation can begin.

K. Technical College Chemistry Transfer
The University System has requested the USG Chemistry Committee to look at taking
credit for CHEM 1211/1212 automatically from all accredited technical colleges. This
procedure would be a departure from our previous behavior where we have not taken
credit automatically. Dr. Lynch urged everyone to voice their opinions to him.

L. NSF-MRI 2012
The NSF-MRI grants are due in January. The two grants that the University will submit
will be coming from our department. Dr. Clifford Padgett will be leading the x-ray
diffactometer application and Dr. Lynch will be leading the microscopy’s application. If
you have any interest on these, you are welcome to talk to either Dr. Lynch or Dr.
Padgett.
M. Faculty Appointments / Promotion Policies
Dr. Lynch shared information regarding proposed movement to change the status of the permanent instructor to a permanent lecturer. This seems to be in line with BOR policies and with other institutions in the USG, which will follow a different path than tenure track faculty. So, there is talk about changing the evaluation procedures that will offer opportunities for promotion from lecturer and senior lecturer. It is his understanding that the administration is very interested in implementing this procedure. Also, indication is that the University is considering not splitting the tenure and promotion to Associate Professor process. If this is implemented, you could not be tenured without being promoted. Temporary faculty will retain the instructor designation that it currently has and will stay on the side of the assistant associate professor in terms of evaluation. Temporary faculty does not have an opportunity for promotion due to the three years that it is allowed to work for the institution.

N. Technology Fee Applications
Dr. Lynch urged the faculty to stay on top of technology fee applications. Dr. Clifford Padgett informed us that they will start rolling quickly in January since most of these decisions are made in the months of April and May.

III. Old Business
A. Science Center Renovations
The building renovations are closing in and we need to know if there are any concerns so we can address them before January 1, 2012.

B. Other
Dr. MacGowan gave instructions regarding the General Chemistry 1211 and 1212 ACS exams. She asked instructors to make sure that they take the right exam since both of them are yellow and to please sign them out. CHEM 1211 exams have the periodic table, constant list as part of the exam and CHEM 1212 exams need the periodic/formula/constant table, which is green. These exams are “secure and copyrighted” similar to SAT, therefore, please, take very good care of them while in your possession. Both Dr. MacGowan and Dr. Clifford Padgett have the keys for both exams.

Once the exam is over with, please turn the scantrons to Dr. Clifford Padgett and make sure that they have the students’ id 907 number on them.

Adjournment
The meeting was adjourned at 1:05pm.

cc: Dr. Anne Thompson, Interim Vice-President of Academic Affairs – Dean of Faculty
Dr. Robert Gregerson, Interim Dean, College of Science and Technology
Dr. Delana Nivens, Interim Assistant Dean, College of Science and Technology
Planning Committee Meeting Minutes
November 10, 2011

Present: Todd Hizer (chair), Brent Feske, Cliff Padgett, Brandon Quillian, and Richard Wallace

**Agenda Item 1:** The committee reviewed the list of purchased items from the 2010/2011 academic year and approved presentation of this list to the department. (list attached)

**Agenda Item 2:** A new prioritized equipment list was prepared which the committee believes will help the department achieve its goal to acquire and maintain technology and instrumentation that will meet the needs of the 21st century scientific community. The committee invites all members of the faculty to suggest additions. (list attached)

**Agenda Item 3:** The committee considered acquisition of an on-line literature search engine. The department is currently out of compliance with ACS guidelines, which require this capability. The committee recommends the department subscribe to the Scifinder “6 for 3” plan, which allows a group of six schools to have three concurrent users. Subscription to the Scifinder Substructure Module (SSM) is also recommended. The annual cost is $6,540. The committee recommends raising the student laboratory fee from $40 to $45 to cover this cost.

The committee brings the following action items to the department:

1. The Department of Chemistry and Physics will purchase the Scifinder search engine, with the Scifinder Substructure Module, on the “6 for 3” plan.

2. The Department of Chemistry and Physics will raise the student laboratory fee for chemistry courses to $45 per semester.
Planning Committee
Purchased items - 9/10 – 8/11

One of the goals of the committee is to help the department acquire and maintain technology and instrumentation that will meet the needs of the 21st century scientific community. Below is the list of perceived needs during the 2010/2011 academic year. Committee rationale and final outcome are noted.

Top Priority Instrumentation/Technology Required to Fulfill Educational Mission

1.) **Assure that general supplies are adequate for chemistry courses.**
   (a) Need hot plates and stirrers—standing order to replace 10-20% per academic year (which equates to #10-20 per year at $250 each. 
   This was done.
   (b) Assure adequate number of Vernier hand-holds and probes, pH meters and Genesys 20’s.
   (c) **Analytical Balance – Quant Lab - $2000 –** Justification: It no longer works and needs to be replaced.
   Purchased. This puts 3 good balances in quant lab.

2.) **Major Equipment Needs (ranked in order of priority. a = highest priority)**
   (a) **2 Muffle Furnaces** - (Fisher 10-550-58N) $2677. Increased need with CHEM 2300/3300 using in instrument room and CHEM 1211 using in general chemistry area. A second furnace would be valuable.
   **Committee Rationale:** This item is currently moved back and forth between labs when being used. We felt that a high demand item with such a moderate cost should be purchased for each laboratory – SC2101 and SC2108
   Purchased. We have a large muffle furnace in the instrument lab and 2 smaller ones in the freshman labs.

   (b) **Cold Chromatography Cabinet:** $4000 – 5000 (~$1000 from Feske RUI). Refrigerator for performing protein separations and other temperature sensitive experiments. Needed for CHEM 3803L and for any other experiments that need the low temperature along with electrical outlets.
   **Committee Rationale:** The committee felt that this item is a standard piece of biochemistry equipment and due to the low cost and matching funds that this should be a ranked accordingly. It was mentioned that every biochemistry candidate interviewed last year mentioned their need for a cold cabinet and this has strengthened our need for this equipment as we look to hire a biochemist.
   Purchased and in use.

   (c) **60 MHz NMR Eft-GENII 60MHz Anasazi Instruments** Approximate cost is $90,000 minus current amounts collected of $20,000. Justification: The low-field instrument we currently have is more than 20 years old,
unreliably produces good 1H NMR spectra and has limited capabilities beyond simple 1H spectra. Since the sophomore students taking the organic chemistry sequence (several hundred each year) run their own spectra week-by-week, there is a high demand for the low-field instrument. Having a second instrument would ease the current backlog. Secondly, the current instrument cannot run 13C and two-dimensional spectra. Both of these topics are found increasingly more often on the ACS Organic Chemistry Exam and in sophomore organic chemistry textbooks.

Committee Rationale: The committee felt that an instrument that would affect such a large number of students each year should sit high on the priority list.
A new 300MHz A instrument is being delivered, so this item is no longer needed.

(d) AA spectrometer $19,000 Current AA is the only instrument in our instrumental lab without computer control, and the buttons are beginning to wear. The instrument still functions well and we have a donated graphite furnace that may be operational soon. However, we must keep this instrument on the horizon since it is required for both CHEM 2300 and CHEM 3300.

Committee Rationale: This instrument that is currently used is extremely old and is currently used in CHEM 2300 and CHEM 3300. Having it replaced would be beneficial.
An almost new AA was donated to the department during the summer. This instrument is in excellent condition, so a new AA is no longer necessary.

(e) Diode Array UV-VIS., $16,000 Workhorse instrument for all classes using the Instrument room. A new one should be on the horizon to replace the oldest of the 3 we have before it breaks. Kinetics is an increasing need.

Committee Rationale: A strong rationale was not included for this instrument and since we have several operating UV-Vis instruments in the department it was difficult for the committee to place this at higher priority. There was some discussion that the UV-Vis in the Gen Chem lab could be moved because it is not being utilized. Purchased and in use. (instrumental lab)

Other Lower priority items – Not purchased
Capillary Electrophoresis: the one we have is a boat anchor, requiring some sort of repair every semester. We should have this capability for our students and our faculty. We need something more reliable. (quote in the works…expected to be about $20-40,000).
Graphite Furnace Attachment for the AA. $23,000
Multisystem Photoreactor - $7800

Technology Needs
Projection in SC 2001 & 2103. With implementation of general chemistry presentations this is a new and higher priority. These systems were installed over the summer and are in use.
TOPIC: Instrument / Technology Plan
Updated Nov 10 2011

YEAR 2011-2012

GOAL: The Department will acquire and maintain technology and instrumentation that will meet the needs of the 21st century scientific community.

- Develop a capital campaign to meet the financial needs of the department in the areas of technology and instrumentation.
- Actively seek opportunities for external funding for new equipment and programs.
- Develop a plan of action for the periodic replacement of outdated/non-functional equipment and technology resources.

Top Priority Instrumentation/Technology Required to Fulfill Educational Mission

1.) Assure that general supplies are adequate for chemistry courses.
   (a) Need hot plates and stirrers--standing order to replace 10-20% per academic year (which equates to #10-20 per year at $250 each.
   (b) Assure adequate number of Vernier hand-helds and probes, pH meters and Genesys 20’s.

2.) Major Equipment Needs (ranked in order of priority. a = highest priority)
   (a) Gas Chromatograph with FID detector ($27 - 33k w/ 10% discount).
      Rationale: The current system is very old and we continuously have problems that are often due to the age of the software and computer. In addition, there has been permanent failure on one of the two inlets that can not be fixed without investing money into an already antiquated GC system. This instrument would be used in Organic and Instrumental (CHEM 2102 and CHEM 3300).
   (b) UV diode array detector for the new LC system ($15k w/ 10% discount)
      Rationale: our current HPLC system is old and is experiencing computer and software problems. Our department recently acquired a new HPLC system with an NSF-MRI grant; however, it did not come with a UV detector. This diode array would serve two purposes. With the mass-spec it could be used to locate elution peaks, and the system would serve as a stand-alone HPLC. This instrument would be used in Instrumental (CHEM 3300)
   (c) Polarimeter ($17k) Rationale: the current instrument is very old and giving very inconsistent readings. After this problem was noticed, an amino acid standard was used to check the instrument. For L-lysine (specific rotation of -7.5) results were highly irreproducible. Out of 10 measurements, only one was accurate; the rest were lower, with a low of -3.7 (50% error). This is an unacceptable amount of error. This instrument is essentially useless. This instrument would be used in Organic and Physical (CHEM 2102 and CHEM 3401)
(d) 2 new computers – one for the Raman and one for the new FT-IR. The computer on the Raman is old. There is no computer to operate the new FT-IR. These instruments would be used in a number of courses (CHEM 2101/2102, CHEM 3300, CHEM 3402, and CHEM 4300).

3.) Other lower priority items.

(a) Multisystem Photoreactor - $7800
(b) Graphite Furnace Attachment for the AA. $23,000
(c) Capillary Electrophoresis: the one we have is a boat anchor, requiring some sort of repair every semester. We should have this capability for our students and our faculty. We need something more reliable. (quote in the works…expected to be about $20-40,000).

Technology Needs

(a) The computers in rooms SC 2502, 2503 and 2504 should be updated or replaced.
(b) The projectors in rooms SC 2502 and 2504 should be replaced.

GOAL 2: The Department will recruit and retain students resulting in graduates who are competitive in the workplace, in graduate schools and in professional schools. (Components of these items will be part of the departmental planning sessions forthcoming)

• Develop programs that interest and excite students about science

Part of overall departmental planning discussions
The department should monitor the new BA with Biochemistry Concentration program (when approved) and the planning and curriculum committees should work together to determine the next step with this degree offering.

GOAL 3: The Department will expand and strengthen its relationships with alumni, industry and the general public.
ATTACHMENT #2

Safety Practices in the Introductory Chemistry Laboratory

Safety in the chemistry laboratory involves a cautious attitude and an awareness of potential hazards. Potential accidents can usually be anticipated and prevented. When safety precautions are followed, fewer accidents occur. The number of laboratory accidents can be reduced if every student follows all the directions given for the experiment and by the instructor. Special note should be taken of specific instructions given in an experiment to avoid recognized hazards.

General Regulations

1. The University is not responsible for damage to personal effects.
2. Whenever students are performing authorized experiments in the laboratory, an instructor is expected to be present.
3. Report the breakage of glassware and/or laboratory equipment to the laboratory instructor immediately. Your laboratory instructor will clean up and dispose of all broken glassware and equipment.
4. Failure to comply with laboratory rules and regulations will result in expulsion from the laboratory and referral to the Department Head for further action.

Student Responsibilities

1. Locate the safety equipment: eyewash, safety shower, fire extinguishers, first-aid kit and all exits that are to be used in an emergency. MSDS sheets for all chemicals are available in the lab.
2. Chemical safety goggles are defined as being splash resistant and indirectly vented and having a strap. Visitor glasses, sunglasses or any other type of non-laboratory eyewear may not be worn in the lab. Prescription eyeglass wearers must wear approved chemical safety goggles over their glasses.
3. Tie long hair back.
4. Wear shoes that cover your feet completely. Since broken glass and spilled chemicals are all too common occurrences in lab, your feet need more protection than that afforded by open-toed shoes or sandals.
5. Wear clothes that provide you with the maximum protection and coverage possible.
6. Food and drink are not allowed in the laboratory.
7. To prevent the entry of any chemical substance into your mouth, do not put any object, such as pens, pencils or fingers, into your mouth. After lab is finished and before leaving the laboratory, wash your hands with soap and water.
8. Do not taste or smell chemicals. If you are directed to note an odor in an experimental procedure, use your hand to waft the odor to your nose.
9. The use of any personal entertainment device is prohibited in the laboratory.

**Housekeeping Rules**

1. Obtain stock chemicals using beakers from your laboratory drawer.
2. Read the label on all stock solutions and chemicals carefully.
3. Take no more of a chemical than the experimental procedure requires. Read the procedure carefully to determine the quantity of each stock solution and/or chemical you need. Obtain only that amount. If you take too much, share it with your neighbor. Do not return the excess to the stock container; this will contaminate the stock solution.
4. Do not insert a dropper or pipet into a stock solution container. Pour a small amount of the stock solution into a beaker and then insert your dropper or pipet into the beaker.
5. Report all chemical spills to your laboratory instructor. Clean up all solid and liquid spills immediately.
6. Do not pour any chemical into the sink or disposed of any chemical in the trash without prior authorization.
7. Do not put paper or solid waste into the sinks.

**Accident and Emergency Procedures**

1. Report any accident, no matter how small, to the laboratory instructor. If an injury occurs, the instructor, student involved and any witnesses will complete an incident report. Incident reports are kept in the first aid kit on the wall in the laboratory. The completed report will be given to the Safety Committee Chairperson and the Department Head.
2. Should an injury occur and a staff or faculty member is not immediately available, follow the “Procedures for Medical Emergency” posted over the phone in the laboratory room.

**Medical or Hospitalization Insurance Information**

You are not covered by medical or hospitalization insurance through Armstrong Atlantic State University. If you are involved in an accident, all medical expenses will be your responsibility.