

Lincoln University
School of Natural Sciences and Mathematics
School Meeting
January 16, 2007
4:00 PM – Grim Hall Room 211

Minutes

- I. Dean Chikwem opened the meeting and welcomed everyone back from holiday.
- II. The minutes were adopted pending one correction to be clarified by Dr. Royer. The last line of section IV on page 1 seems to be incomplete.
- III. Science Conference (March 17, 2007)
Dean Chikwem reported that representatives from Penn State have already inquired about the science conference. Dean Chikwem asked for volunteers to serve on the Science Conference committee. Dr. Tung and Dr. Baskerville volunteered. Dean Chikwem will contact Dr. Swinton, who served last year, to stay on the committee.
- IV. Dr. Henderson's Memorial
The chapel is now ready, and a date for Dr. Henderson's memorial needs to be reserved.
- V. Progress on School Journal
Dean Chikwem stressed the importance of having a school journal this year. No new journal articles had been received since the last meeting.
- VI. Penn State – Seminar on Emerging Diseases
Dean Chikwem said that the format of the seminars would be more conversational and would discuss both the social and scientific sides of emerging diseases. A committee needs to work out details.
- VII. Assessment and Retention Issues
Dean Chikwem presented data on the performance of students collected yearly for NSF (LEAPS). The data focused on how many students graduate in the sciences. He reported data from last year (2005-2006) and fall 2006 of the number of students who passed (C and above) and failed (below C) "gatekeeper" science and math courses; more failed than passed. The retention pattern at Lincoln is up and down for the years reported. Retention patterns of other schools were either flat, up, or down, which NSF prefers. Dean Chikwem suggested that we consider a model to use to improve retention and reach desired goals and expectations. Several faculty members voiced opinions about causes, problems, and concerns associated with assessment and retention issues.

Dean Chikwem grouped major responses and concerns as follows.

1. Student enrollment/planning (financial problems, disciplinary problems, etc.)
2. Admission issues (need criteria for admission)
3. Environment may kill motivation (hardwork/preparation vs. supportive environment; environment not conducive to learning)
4. Responsibility of teachers to work with students irrespective of background
5. Examination practices may create stress
6. Time management
7. Program management
8. Attendance issues

Dean Chikwem will take the ideas to the administration. It was suggested that we as a faculty should talk with all our students (conference) this semester.

VIII. New Science Building

The architects will be on campus Friday, January 26, 2007. The ground breaking may be in March if no more major issues. Hopefully, the new science building will be ready in 2008. Suggestions and corrections may be given to the building committee.

IX. Other Business

A new faculty member in the math department, Dr. Naik, was introduced. Dr. J. Pathak discussed the upcoming (tentatively the last week in February) MSPGP conference between Lincoln and nearby schools. New teaching to be implemented in the classroom will be discussed. Dr. Swinton announced that Dr. Lubaroff from the University of Iowa will be visiting Lincoln Thursday, January 18 to talk about the summer undergraduate research program. Eight students can be accepted for the program this summer; this is an increase from six students last year. Dean Chikwem mentioned that there is money for five students to do research at Penn State.

The meeting was adjourned at 5:20 p.m.

Respectfully submitted,

Karen A. Baskerville

**Proposed Structure of General Science BS Degree
School of Natural Science, Mathematics and Computer Science**

The BS General Science degree students are required to take core courses from science and mathematics department as shown below:

Core courses:

MAT 111 Pre- Calculus	3
MAT 121 Calculus I	4
PHY 103 Intro Physics I*	3
PHY 104 Intro Physics II*	3
PHY 107L Freshman Lab I	1
PHY 108L Freshman Lab II	1
Or	
PHY 105 General Physics I*	3
PHY 104 General Physics II*	3
PHY 107L Freshman Lab I	1
PHY 108L Freshman Lab II	1
CHE 103 General Chemistry I	4
CHE 104 General Chemistry II	4
BIO 103 General Biology	4
BIO 104 General Biology	4

Total 31

* Choice between Intro Physics and General Physics sequence will left to the department of concentration.

Students are required to choose one of the three areas of concentration in biology, chemistry and physics. Required courses for each concentration are shown below:

Biology Concentration:

BIO 207 Plant and Animal Systems	4
BIO 208 Genetics	4
Four Upper Level Electives (BIO 300 & 400 Courses)	16
At least two must be lab courses	
MAT 114 Elementary Statistics	3
Senior Seminar in Biology	1
Programming I and II	6

Total 34

University requirements plus additional courses to make up a total of 120 to 126

Chemistry Concentration

CHE 201 Quantitative Analysis	4
CHE 203 Organic Chemistry I	4
CHE 205 Inorganic Chemistry	4
CHE 303 Biochemistry I	2
CHE 313 Scientific Lit Survey	4
CHE 204 Organic Chemistry II	
Or	
CHE 202 Physical Chemistry I	4
BIO 205 Anatomy & Physiology I	
Or	
BIO 304 Development Biology	
Or	
BIO 208 Genetics	4
BIO 207 General Microbiology	
Or	
BIO 408 Cell & Molecular Biology	
Or	
BIO 402 Immunology	
Or	
CHE 304 Biochemistry II	4
MAT 114 Elementary Statistics	3
Total	33

University requirements plus additional courses to make up a total of 120 to 126

Physics Concentration:

MAT 122 Calculus II	4
MAT 214 Linear Algebra	3
MAT 221 Calculus III	4
MAT 222 Differential Equations	3
PHY 211 Mechanics	3
PHY 221 Waves and Optics	3
PHY 251 Modern Physics	3
PHY Mathematical Methods In Physics	3
PHY 331 Thermal Physics	3
PHY 341 Electromagnetism	3
PHY 391 Junior Physics Lab	3

Total 35

Selected courses from Chemistry and Biology plus university requirements to make up a total of 120 to 126

Learner Outcomes for Major Programs

School: **Social Sciences & Behavioral Studies**

Department: **Business & Information Technology**

Major: Accounting

Major: Business Management

Major: Finance

Major: Information Technology

Department: **Education**

Major: Early Childhood Education

1. Effectively manage the instructional environment of Nursery-3
2. Effectively plan instructional program for Nursery-3
3. Effectively implement, adapt, and evaluate instructional strategies and curricular content for Nursery-3
4. Conduct oneself according to the PA. Code of Professional Practice and the Code for Educators
5. Effectively collaborate with professional staff, support staff, and external constituencies
6. Effectively communicate with parents/guardians, administrators, colleagues, support staff, and the wider community

Major: Elementary Education

1. Effectively manage the instructional environment of K-6
2. Effectively plan instructional program for K-6
3. Effectively implement, adapt, and evaluate instructional strategies and curricular content for K-6
4. Conduct oneself according to the PA. Code of Professional Practice and the Code for Educators
5. Effectively collaborate with professional staff, support staff, and external constituencies
6. Effectively communicate with parents/guardians, administrators, colleagues, support staff, and the wider community

Department: **History & Political Science**

Major: History

Major: Political Science

Department: HPER

Major: Health & Physical Education

1. Effectively manage the HPE instructional environment of K-12
2. Effectively plan HPE instructional program for K-12
3. Effectively implement, adapt,, and evaluate HPE instructional strategies and curricular content for K-12
4. Conduct oneself according to the PA. Code of Professional Practice and the Code for Educators
5. Effectively collaborate with professional staff, support staff, and external constituencies
6. Effectively communicate with parents/guardians, administrators, colleagues, support staff, and the wider community

Major: Health Science

1. Assess nutritional, fitness, and stress health status
2. Plan health program interventions based upon assessment data and by locating information that is accurate, comprehensive, and up-to-date
3. Implement health program
4. Communicate health programs' rationales, interventions, results
5. Evaluate effectiveness of health interventions, leaders/trainers, and the instructional/leadership methods
6. Analyze, evaluate, and solve first aid problems by applying principles of treatment as specified by the American Academy of Orthopedic Surgeons
7. Identify a health problem, collect data, analyze it, interpret it, and derive conclusions that the data warrant

Department: Psychology

Major: Psychology

1. Collect, analyze, and interpret data relevant to testing an hypothesis
2. Communicate orally and in writing about psychology topics
3. Function effectively as a team member to produce a scholarly product

Department: Sociology & Anthropology

Major: Criminal Justice

Major: Human Services

Major: Sociology