Minutes Natural Sciences and Mathematics Meeting, Tuesday, November 3, 2009 NS 101
The meeting was called to order by Division Chair Steve Taylor at 3:37 pm

In attendance: Jeff Templeton, Phil Wade, Mike Ward, Laurie Burton, Klay Kruczek, Rahim Kazerouni, Patty Flatt, Jeff Myers, Irja Galvan, Erin Baumgartner, Cheryl Beaver, Ava Howard, Steve Taylor, Sarah Boomer, Adele Schepige, Niki Winslow.

I. APPROVAL OF AGENDA
There was a motion made to approve the meeting agenda. The motion was seconded and approved.

II. APPROVAL OF OCTOBER MEETING MINUTES
The minutes were approved with Laurie's edits which had already been made.

III. ANNOUNCEMENTS
a. Post-Tenure / Promotion and Tenure Files are due November 20, 2009. Mike LeMaster is the chair. Please refer to the Collective Bargaining Agreement for organizing the tenure file.
b. Sabbatical requests are due to the Dean's office 12/5/09, in triplicate on the "pink" forms. They go from the Dean to the Provost on December 15.
c. Spring 2010 schedule revisions and summer 2010 schedule due to Niki 12/16/09 (due to Dean 1/15/10); 2010-2011 schedule due to Niki on January 4, 2010 (due to Dean 1/21/10). Steve is in the process of collecting schedules to meet to work out time conflicts between departments before Thanksgiving.
d. Fall 2009 Department Assessment Reports are due to NSM Division Chair Friday, Dec. 4 (draft template handed out at Sept. 23, 2009 meeting).
e. Fall Preview Day II is Saturday, November 7, 9:30-10:40 am.
f. Call for presentation materials for hall display. Patty has provided information for announcing speakers.
g. Faculty development grants: due Friday, November 6, 2009 by 5 p.m. in the Provost's office. This is the first round.
h. The NSM Division travel grant deadlines are: November 24, 2009 and April 27, 2010, in coordination with Faculty Development awards. The average NSM Faculty travel award is a few hundred dollars. Faculty Development awards will be announced November 17, 2009.
i. There is a line-item action list and calendar pages 7-11 of handout.
j. PURE/Academic Showcase – May 27, 2010; Provost call for room/schedule/attendance flexibility
k. Niki announcements: Please turn in various schedules according to deadline, no "wiggle room". There was some discrepancy between due dates on agenda sheet and line-item action list. Niki clarified on a following email. The correct dates are as stated above in item c.

IV. OLD BUSINESS
a. Committee Assignments Update / Faculty Senate replacement for Pete (just for fall). Klay will fill the position for the rest of fall. Mary will fill the Ad Hoc Graduate position on the Dean's Advisory Committee.
b. Division equipment and capital improvement plans – see pages 13-16 of the handout. Chemistry and EPS have reported their requests, Biology will have theirs in later this week. Steve will put the items on a spreadsheet which will go to Sarah for AIC, and then to the Dean and eventually the Provost.

c. NSM Seminar Series: scheduling is in progress. The question was posed: do we have enough interest and attendance to sustain the seminars. The consensus was that there is interest, possibly we could change the schedule frequency. Cheryl suggested possibly holding a seminar one a month. The discussion was regarding how often we might hold the seminars philosophically vs. realistically. Mike Ward stated that the current noon time is not good for math instructors, that possibly later in the day would be better. Essentially there is good support to continue the seminars, but possibly hold them less frequently. Taylor asked for a straw poll, and all were in agreement to continue the seminar series in some form or fashion.

d. Ad Hoc Working Groups (meeting schedules-action plan) – meet at least once in Fall term.

i. NSM Building Utilization and Planning Committee (NS Office expansion). Klay asked to be excused from the meeting as most of the scheduling issues do not involve the math department.

ii. NSM Schedulers Committee (scheduling in process). Laurie asked about availability of Maaske Hall. When the new construction is completed Masske may go back to having office possibilities.

V. NEW BUSINESS

a. Pending changes to Elementary Education program (Dr. Adele Schepige – Guest Visit) Adele gave an overview of pending curriculum changes within the COE regarding changes in the Early Childhood and Elementary Education programs (see pages 17-26 of handout). The formal proposal has not been launched yet, it is still in the discussion stage. One year ago the process was stopped when Adele resigned was Dept. Head. Adele is on sabbatical this year and is primarily out of the loop right now. The proposed changes to the mathematics program have been completed. Education is trying to balance out four areas: Social Studies, Mathematics, Language Arts and Sciences (see pages 18 & 22). There is discussion of dropping the focus areas. Credits have been shifted around. Central Advising will now handle the COE LACC advising. Four terms of 400 level work have been dropped, they will be moving some courses to lower division,with a series of "gates" that will determine if students progress through the Ed. Programs or not. Some gates will be GPA on the core content courses and CBEST exam. Jeff Templeton suggested they allow two of the three ES 104-106 series and university wide approval of curriculum changes. Jeff also stated GS 311, 312 and 313 should stay on the books. Possibly three could be collapsed into two courses, one taught here and one by Education. Erin stated that she feels strongly about these courses maintaining their content and process (methods) components together. The new program is targeted for submission to the Curriculum Committee at the November 10.2010 meeting. From there the changes will go to faculty senate.

b. PKAL Lab Facilities Planning Workshop, Linfield College, Dean will fund registration (see pages 17-26 of handout). Erin has experience with Project Kaleidoscope (Education Dept.). See page 28 of handout – goals and outcomes. Any one who is interested in attending should let Steve know. (follow-up note: Patty Flatt will be attending this workshop).

c. Catalog edits/ minor changes due in Dec. and January – please review changes and forward to dept chairs (see pg 29 of meeting packet). This is for minor editorial review, changes that do not require curriculum committee approval.

d. Faculty Advising list – (pg 30 of meeting packet) please review and send edits to Niki.

e. Classroom observations of non-tenure track, adjunct instructors (pg 31-31 of meeting packet). Follow up comments: Phil re: CBA bargaining proposal – these reports will not be an annual process, currently they are. They will become every two to three year reviews. Every adjunct will be evaluated their first year.

VI. REPORTS

a. NSM Budget Update (pg 33)

- item of concern: projected -$158,000 deficit in LAS instructional budget for winter and spring terms
- identification and justification of "low-enrollment" courses (<11); dean requesting prudence. Steve plans to adopt a "wait and see" approach to any budget changes at this time. He anticipates some version of budget crisis/crunch spring term.

b. Faculty Senate - Klay stated that since Scott was not at this division meeting he would email notes from the senate meeting.

c. Faculty Development Committee – applications are due soon.

d. AFT/WOU Faculty Union. Phil reported that right after this division meeting he would be attending a meeting with the Union. The University did hire one new person.

e. Curriculum Committee (Division and Campus)

- Online submission process. Laurie stated that there have been a few bugs in the process. She thinks they have been fixed. She said to use the attachment for the form in the electronic routing sheet. Phil said the delete feature wasn't working when he used it.
- Pending changes of note: elementary ed. Degree, biology program changes, ES 199 Topics: Sarah said that Biology is planning curriculum changes for the Bi 211-213 sequence from 4-5 credits, they have made other changes to keep the total credits the same. Bryan is in charge of the proposal. Phil said they plan a supplemental once a year ES Special Topics. Laurie asked how this would affect the LACC. Sarah asked about consistency in Special Topics as transfer courses from Community Colleges.

f. PRC promotion and review files are due, committee will meet soon. Thank you to Erin, Parry and Kristin for getting your files done early.

g. LACC/Gen. Ed. Review Committee. The committee is looking at writing components of the LACC. Faculty are encouraged to complete survey that Tom Bergeron sent out.

h. Academic Requirements Committee. Klay stated that students can challenge a course even if they have taken a more advanced course. Anthropology is dropping the idea of adding "With Honors" on diplomas.

i. Academic Infrastructure Committee. Sarah said infrastructure requests are due in three weeks, she will develop a new spreadsheet for the AIC. A question came up about by-laws, the general consensus was that by-laws are not required for faculty senate committees. Sarah said the chair thinks they have been asked to create by-laws. They will bring that up at the next meeting. Laurie stated that Kathryn Schmidt held a meeting at the beginning of the year to review faculty senate by-laws.

VII. FINAL COMMENTS AND ADJOURNMENT

It was moved and seconded to adjourn the meeting, at 5:05.

MEETING AGENDA
DIVISION OF NATURAL SCIENCES AND MATHEMATICS
WESTERN OREGON UNIVERSITY

November 3, 2009; NS101 3:30 PM *NOTE ROOM CHANGE*

I. ROLL CALL / APPROVAL OF AGENDA

II. APPROVAL OF OCTOBER MINUTES

III. ANNOUNCEMENTS

a. Post-Tenure Review / Promotion and Tenure Files (Due: 3rd Friday in Nov. 11/20/09)
b. Sabbatical requests / proposals; (should submit "pink form" 12/5., Dean to Provost 12/15)
c. Spring 2010 schedule revisions and summer 2010 schedule due to Niki on Jan. 4, 2010 (due to Dean on Jan. 15); 2010-2011 schedule due to Niki on Jan. 7, 2010 (due to Dean on Jan. 21).
d. Fall 2009 Department Assessment Reports Due to NSM Division Chair Friday, Dec. 4 (draft template handed out at Sept. 23, 2009 meeting)
e. Fall Preview Day II – Sat. Nov. 7
f. NS Hall Display Content – Continued call for presentation materials
g. Faculty Development Grants: Friday, November 6 by 5 p.m. in the Provost's Office
h. NSM Division Travel Grant Deadlines: November 24, 2009 and April 27, 2010
i. ~~Fall 2009 Dept. Assessment Reports – Status / Due December 5, 2008~~
j. Line-item action list and calendar (see attached)
k. PURE/Academic Showcase – May 27, 2010; Provost call for room/schedule/attendance flexibility
l. Niki / Office Coordinator announcements

IV. OLD BUSINESS

a. Committee Assignments Update / Faculty Senate replacement for Pete Poston
b. Division equipment and capital improvement plans – handout for review
c. NSM Seminar: scheduling in progress, attendance issue, do we have faculty-student support to sustain?
d. Ad Hoc Working Groups (meeting schedules-action plan) – meet at least once in Fall Term
   i. NSM Building Utilization and Planning Committee (NS Office expansion, meeting to be scheduled)
   ii. NSM Schedulers Committee (scheduling in process)

V. NEW BUSINESS

a. Pending changes to Elementary Education program (Dr. Adele Schepige – Guest Visit)
b. PKAL Lab Facilities Planning Workshop, Nov. 21 Linfield College, Dean will fund registration
c. Catalog edits / minor changes due in Dec. and Jan. – please review and forward changes to dept. chairs
d. Faculty advising list – please review / send edits to Niki
e. Classroom observations of non-tenure track, adjunct instructors

VI. REPORTS

a. NSM Budget Update
   - item of concern: projected -$158,000 deficit in LAS instructional budget for winter and spring terms
   -identification and justification of "low-enrollment" courses (<11); dean requesting prudence
b. Faculty Senate
c. Faculty Development Committee
d. AFT/WOU Faculty Union
e. Curriculum Committee (Division and Campus)
   -Online submission process
   -Pending changes of note: elementary ed. degree, biology program changes, ES199 Special Topics
f. PRC
g. LACC/Gen. Ed. Review Committee
h. Academic Requirements Committee
i. Academic Infrastructure Committee

VII. FINAL COMMENTS AND ADJOURNMENT

Natural Sciences and Mathematics Division Meeting, October 6, 2009 MNB 222
The meeting was called to order by Division Chair Steve Taylor at 3:35 pm

In attendance: Steve Taylor, Sarah Boomer, Erin Baumgartner, Ava Howard, Klay Kruczek, Mary Beisiegel, Scott Beaver, Laurie Burton, Don Ellingson, Rahim Kazerouni, Patty Flatt, Sam Cole, Bryan Dutton, Mike LeMaster, Karen Haberman, Niki Winslow.

I. APPROVAL OF AGENDA

A motion was made, seconded and approved to accept the agenda.

II. MODIFICATIONS/APPROVAL OF SEPTEMBER 23, 2009 MINUTES

Bryan mentioned that "Disability Services" should be listed as the Office of Disability Services.

Laurie has been working on an on-line form for communicating with the ODS regarding their services.

It was noted that Erin started her service on her committee in 2008.

A motion was made, seconded and approved to accept the minutes with these corrections from the September 25 meeting (see pgs 2-6 of handout).

III. ANNOUNCEMENTS AND REMINDERS

a. Post - Tenure Review / Promotion and Tenure Files are due: 3rd Friday in Nov. 11/20/09.
b. Sabbatical requests /proposals ("pink form" submitted in triplicate during fall term, due to the Dean Dec. 15)
c. Spring and summer 2010 revisions and schedule are due to Niki the first Wednesday (Dec. 16) following finals week of fall term; the 2010-2011 schedule will be due to Niki on January 4 (due to Dean January 21).
d. Fall class syllabi repository: send electronic syllabi to Niki if NS courses, to Sharyne if math, ASAP. These should be named as follows: *course number* syl 2009_01 *Faculty Last Name* for fall of 2009.
e. Fall 2009 Department Assessment Reports Due to NSM Division Chair Friday, Dec. 4 (draft template handed out at Sept. 23, 2009 meeting). Steve will get more information on what is being requested. EPS will modify what they did for this year.
f. Fall Preview Day I - Saturday, October 17; new time - 9:20-10:40
g. Department equipment-remodeling-infrastructure plans due Nov. 1. Departments should forward requests directly to Steve Taylor.
Laurie asked if this covers special expenses like the Sonia Kovalesky day. It should be followed up on that to see if it would be acceptable under the special requests funds.

h. NS Hall E-Display content - continued call for faculty-student-dept. digital displays/videos. Bring items to Steve if you would like to include them in the display.

i. Niki / Office Coordinator announcements - 2010 - 2011 Schedule due date considerations: three different schedules are due to the Dean within a week and at the beginning of a new term. Please turn in schedules/corrected schedules to Niki by the requested dates - it is a short turn around time in December/January for this work.

IV. OLD BUSINESS

a. Final committee assignments: Mike LeMaster is chair of PRC, Laurie Burton was previously. Laurie stated she had materials to hand off to Mike. Bill Schoenfeld, Cheryl Beaver, Pete Poston and Steve Taylor are also on the PRC committee. We have a three-day turn-around to get 2nd year files to the Dean.

b. NSM LACC Committee: Explicit position statement needed on science and math content in the LACC and general ed. Jeff Templeton was not at this meeting to comment. Erin said the last meeting was scuddled until a future time. She is going to say that NSM is not comfortable with changes until an assessment has been completed. Bryan was at the faculty senate meeting, said there was no mention of a review process. Erin communicated to Tom Bergeron that she would want to see an assessment before proposing changes to the curriculum. Math is considered to be in the General Ed category and not LACC. Mathematics courses are considered a requirement for graduation and are listed with Computer Science courses in the BA/BS program requirements choices. The committee will develop a position statement to have ready when topic comes up for discussion, Erin agreed to take the lead. Bryan totally supports the National Science Teachers Association (NSTA) statement about teaching lab-based science courses. Erin thinks this is a good idea and will talk to the committee and follow-up with Jeff.

c. Division travel funds proposal process (due dates, forms, contacts, etc.) - Historically division travel funds have been distributed following the faculty development travel award announcements. Last year there was a low rate of travel funding application during fall term, spring term proved to be the highest application rate ever. Faculty can send in two travel applications to Faculty Development in the fall, one may be funded and it is possible the other will carry over to spring term. Diane Baxter is the chair of the Faculty Development committee. The deadline for applications will probably be mid-November. The date is most likely posted on the Provost's website. The first Faculty Development Committee meeting is October 21, 2009.

V. NEW BUSINESS

a. LAS Graduate Program Advisory Committee – Need for NSM Division Representative?

Steve asked if there is any interest in serving on this committee. The Dean is trying to convene a LAS Graduate Advisory Committee to interact with the Graduate program. History and the Criminal Justice departments have graduate programs. The Dean has asked for nominations. (Mary Beisiegel stated that she was interested after the meeting.

VI. REPORTS

a. NSM Budget Update – see page 8 of the handout. Klay asked when the funds are released to the departments. The money is available as of July 1, which is the beginning of the fiscal year.
b. FACULTY SENATE – will meet next Tuesday.
c. Faculty Development Committee – see above comments in Old Business.
d. AFT/WOU Faculty Union – the current contract has been extended until February. Possibly a new contract will be settled in January. Our division was allowed four promotions. Scott stated that there is a perception among Administration that since WOU is reasonably well-off financially, that were we to settle now with a contract which provided faculty with better terms than corresponding contracts at other OUS institutions, WOU might find itself in a less favorable position next year in terms of distributions of funds from within OUS. The WOUFT Bargaining Team concurs.
e. Curriculum Committee – Laurie reported that it looks good for getting the online curriculum proposal process in place for release at the 10/13 faculty senate meeting. Approvals will be part of an automated system. Steve asked about the order of approvals and printing capabilities. Laurie said she would check the forms for approval order and that the html view of submitted proposals could easily be printed. The new format will be an automated two-page document on line that would go on the WOU portal. This would mean that curriculum items would go through electronically to the Dept. head, Division chair, and the campus head of the Curriculum Committee.
f. Academic Requirements Committee – Klay – states they have not yet met this year.
g. LACC Review Committee – see notes in Old Business about the science position regarding LACC requirements.
h. PRC: LeMaster is Chair; clarification – Associates may apply for full professor at the beginning of their 5th year as Associate. Mike suggested faculty follow the CBA in building their promotion files.

i. AIC – Sarah has sent an email trying to determine what the AIC has the power to do. They will be looking at the spring report in a week. Discussion of the E displays came up, others would like to see them across campus if the budgets allow. Education is not happy with their amount of equipment funds compared to ours. Bryan stated that in 2007 President Minahan gave significant authority to AIC regarding campus infrastructure decisions. In terms of use of funds, Hilda uses the Education Supplies and Services budget for other things. Klay asked if there is still a Tech fee. Apparently there is no faculty representation on how the tech fee is apportioned, it is in the general budget so no oversight. Bill Kernan has access to all of the tech fee. Education did purchase laptops through the PT3 grant, which Bill is not replacing as the computers become outdated. Bryan related that the Provost gave a presentation at Faculty Senate last January and indicated that aboaut $1,000,000 had been distributed to various projects / acquisitions based on AIC recommendations.
j. PURE / Academic Showcase – is being held Thursday, May 27, 2010 – plan accordingly.

There was a motion to adjourn, which was seconded and approved by unanimous vote. The room emptied at 4:30 PM.

College of Liberal Arts and Sciences Department Meeting Log

Date: _____

Department: _____ **Division:** _____

Attended: _____

1. **Program, major/minor/curriculum components or operational issues reviewed:**

2. **Assessment Method (type of evidence reviewed). Where is the evidence stored?:**

3. **Actions to be taken by the department:**

4. **Expected enhancement to departmental programming or support to other academic units:**

5. **Plan for follow-up actions or tracking:**

NSM Division Calendar of Events 2009-2010

10/5	Revisions to Winter Term schedule due to Dean's office
10/12	Summer planning packets sent to Chairs
10/17	Fall Preview Day I
10/23	Revisions to Winter schedule due to Provost office
	Division chairs identify faculty eligible for tenure, promotion/continuation on tenure track
11/7	Saturday - Fall Preview Day II
11/16-11/20	Registration for Winter Term
11/20	Faculty promotion/tenure/continuation files due to Division Chairs
	CLAS fixed-term/part-time winter hire sheets due to Dean's office
11/25	Requests for 2009-2010 fee changes due to Provost Office (for winter fees)
11/25	2nd year annual tenure files due to Dean's Office
11/26-11/27	Thanksgiving Holiday - University closed Thursday and Friday
12/4	2nd year annual tenure files due to Provost Office
	NSM Fall assessment reports due to Div. Chair; draft template handed out at 9/23 meet.
12/7-12/11	Final Exams
12/11	9-month faculty sick leave reports due
12/15	Sabbatical requests due to Dean's Office
	Non-renewal notification of 2nd year annual tenure faculty sent by President
	Grades due 10 am
12/16	Wednesday - Spring term corrections, Summer schedule to Niki
12/21	Sabbatical requests due to Provost Office
12/24-12/25	Christmas Holiday - University closed Thurs & Fri

1/1/2010	Friday - New Year's Day - University closed
1/4	Classes begin
1/4/2009	2010-2011 schedule to Niki in Excel spreadsheet (accepted before 1/4 of course)
1/15	Revisions to Spring & Summer schedule due to Deans office
1/15	Registration ends for all
1/18	Monday - MLK Holiday, University closed
1/21	2010-2011 class schedule due to Deans office
1/23	Winter Preview Day I - Saturday
1/29	All promotion/tenure/continuation files other than 2nd year due to Dean
2/1	Provost office sends request for nominations for Faculty Award for Excellence in Teaching
2/3	Completed Spring & Summer schedule of classes due to Provost Office
2/8-2/26	Faculty evaluations (3 weeks)
2/13	Saturday - Winter Preview Day II
2/15	All promotion/tenure/continuation files other than 2nd year, inculding unfavorable promotion/
	tenure/continuation recommendations due to Provost office
2/16	CLAS fixed-term/part-time winter hire sheets due to Dean's office
2/22	2010-2011 Catalog revisions requested by Provost office
2/22-2/26	Registration for spring & summer term
2/26	Friday - last day for faculty evaluations
3/1	Faculty Award for Excellence in Teaching nominations due to Provost Office

3/5	Notification to faculty receiving unfavorable tenure/promotion recommenda. sent by Provost
3/8	Revisions to Fall 2010 schedule due to Deans office
3/12	Notification of non-renewal of 1st year faculty sent by President
	Cesar Chavez Conference
3/15-3/19	Final Exams
3/19	Written request for review of unfavorable tenure/promotion recommendations due to Provost
3/22	MONDAY - Grades due by 10 am
3/25	Thursday - Admissions Spring Break visiting day
3/22-3/26	Spring break
3/29	Classes begin
3/30	Provost sends out Regalia order forms
4/5	Deadline to submit changes for 2010-2011 catalog
4/9	Registration ends for all students
4/16	Deadline for Regalia orders to Provost Office
4/17	Spring Preview Day I - Saturday
4/19	Monday 2009-2010 NSM922 Purchase (orders) request deadline - to Niki
4/21-4/22	Draft 2010-2011 catalog at WUC
4/27	Completed 2010-2011 schedule of classes due from deans to Provost Office
5/7	Faculty notification of promotion/tenure/continuation decisions sent by President
5/10	Final 2010-2011 catalog to Public Relations

5/12	On-Campus Admited Student Reception
5/13	Request for fee changes for 2009-2010 (?) due to Provost office
5/15	Early Bird Transfer Student registration Saturday
5/17	Final 2010-2011 catalog to printer
5/17-5/21	Registration for summer and fall term
5/27	Thursday - Academic Excellence Showcase
5/31	Monday - Memorial day holiday - University closed
6/7-6/11	Final exams
6/11	Notification of commitment to rehire adjunct faculty sent by Colleges
6/12	Saturday - Commencement
6/11	Last day of fiscal year to do PO's/ Business Office date - they will not take PO's after
	this is usually around 6/15 - note earlier date.
6/14	Within division - faculty annual report due to div chair
6/15	Tuesday - Grades due by 10 am
6/21	Summer Sessions begin
6/25	Friday - SOAR
7/5	Monday - Independence Day Holiday - University closed
7/9-7/10	SOAR Friday and Saturday
7/16	First 4-week summer session ends
7/19	Second 4-week summr session begins

7/20	Tuesday - Grades due 10 am for first 4-week summer session
7/23	Department reports due to div chair
7/24	SOAR - Saturday
7/30	Friday - 6 week summer session ends
8/3	Tuesday - grades due 10 am for 6-week session
8/7	Division report due
8/13	Second 4-week session ends

Division of Natural Sciences and Mathematics
2009-2010 Committee Assignments *(Updated Nov. 2, 2009)*

NSM Budget and Operations Committee [Department Chairs]
LeMaster (Bio) Kazerouni/Courtney (Chem) Templeton (EPS) Kruczek (Math)

NSM Curriculum Committee
Baumgartner (Bio) Kazerouni (Chem) Myers (EPS) C. Beaver (Math; chair)

NSM Professional Concerns Committee:
Latham (Bio) Poston (Chem) Templeton (EPS) Ward (Math)

NSM Personnel Review Committee
Taylor (Div. Chair) LeMaster (Bio; CHAIR) Poston (Chem) Schoenfeld (EPS) C. Beaver (Math)

NSM Service Committee
OPEN (Bio) Kazerouni (Chem) Schoenfeld (EPS) Behmard (Math)

NSM Technology Committee
Dutton (Bio) Flatt (Chem) Taylor (EPS) S. Beaver (Math)

University Committees (*start of current term in parentheses*)

Academic Infrastructure Committee:	Boomer (F09)
Academic Requirements Committee:	Kruczek (F09)
Faculty Development Committee:	LeMaster (F09)/Arlene Courtney (F08); Hamid Behmard (F07)
Faculty Senators:	Scott Beaver (F09), Bryan Dutton (F08), ***OPEN (replacement needed for Poston)***
Faculty Senate Committee on Committees:	Scott Beaver (F09) and Klay Kruczek (F09)
Faculty Senate Curriculum Committee:	Laurie Burton (Chair, F08)
Honors Committee:	Jeff Myers (F08)
Institutional Review Board:	Erin Baumgartner (F08)
International Ed Committee:	Haberman (F09)
Parking Committee:	OPEN
Student Conduct Committee:	Patty Flatt (F09) Klay Kruczek (F07)
Student Financial Aid/Scholarship:	C. Beaver (F09)
Student Grievance Committee:	Rahim Kazerouni (F08)
Writing Intensive Committee (fac senate):	Kristin Latham (F09)
Who's Who, Dewey/Smith:	Irja Galvan (F08)

NSM Ad Hoc Working Groups

NSM Building Utilization and Planning Committee
Dutton (Bio) Poston (Chem) Templeton (EPS) K. Kruczek (Math)

NSM LACC Review Committee
Baumgartner (Bio) Courtney/Kazerouni (Chem) Templeton (EPS) Ward (Math)

NSM Seminar Committee
Latham (Bio) Flatt (Chem) Taylor (EPS) Mary Beisiegel (Math)

LAS Graduate Advisory Committee: NSM Rep., Mary Beisiegel (Math) ← NOT

Department of Chemistry
Instrumentation and Infrastructure Plan
Western Oregon University

November 2, 2009

Pete Poston:

I attached the quote from Agilent for the GC-MS. We can get a 20% university discount off of the $80K price. I didn't have them include this in the quote in case the Admin asked for a cheaper version!
If that doesn't work, I could use about $5000 to fix the electrochemical instrumentation, or maybe $5000K for more digital SLR cameras for Ch161.

Repair of Electrochemical Instrumentation	$5000
SLR Cameras	$5000
Gas Chromatography/Mass Spectrometer	$84,000
Subtotal	$94,000

Sharon Clinton:

Shelving for student backpacks for NS 114, 115 and 116:	$252.22
Atomic emission spectrum tubes and power supplies:	937.45
Male and female skulls for forensics lab:	486.08
Subtotal:	$1676

Patty:

Refrigerated Shaker Incubator	Phenix Research Products	~ 13,000
Nanovue Spectrophotometer	VWR	~ $9,400
	Subtotal $22,400	

Chemistry Department Total $118,076

Laboratory Infrastructure Improvements and Equipment Needs
Department of Earth and Physical Science
(November 2009)

Repairs and Upgrades to NS 218A $8,700
Includes floor repair, ventilation upgrade, painting, and west-wall counter refurbishment

Computer Upgrades for NS218/218A $17,600
Includes 11 workstations, with large-format flat-panel monitors

Campus Groundwater Laboratory $19,300
Includes costs for Well Field Construction Materials; Groundwater Pumping Apparatus, Groundwater Remote Data Logger / Pressure Transducer, and Water Sampling Accessories (bailers, sampling supplies)

Sample Storage Cabinets $20,000
Purchase of up to ten Lane Specimen cabinets and drawers for storage of Broderson Lithologic Collection.

Student-Grade Lithologic zoom/binocular light microscopes $6,000
Three Leica EZ4D Binocolar Light microscopes

Student-Grade Petrographic Microscopes $15,000
Three Leica DMEP microscopes with accessories

"Ruggedized" Field-Grade (Waterproof/Vibration Proof) Laptop $7,000

Hand-Held Fluxgate Magnetometer $1,500

Digitizer Drafting Stand $1,100

Justification Statement

The Earth Science faculty is pleased to submit this equipment list for capital improvements within the Department of Earth and Physical Sciences. These recommendations are designed to upgrade and support laboratory infrastructure associated with the Earth Science Major at WOU. The field hydrology laboratory equipment, student microscopes, and field mapping equipment will be used to support classroom activities as well as research conducted by both faculty and students. This equipment will be used extensively in the following courses: ES 201 and ES 202 Principles of Geology, ES 301 Petrographic Microscopy, ES 302 Quantitative Methods, ES 321 Structural Geology, ES 322 Geomorphology, ES 341 Fundamentals of Geographic Information Systems, ES 354 Volcanoes and Earthquakes, ES 392 Sedimentary Geology, ES 431 Paleobiology, ES 450 Introduction to Petrology, ES 454 Volcanology, ES 473 Environmental Geology, ES 476 Hydrology and ES 492 GIS Applications in the Earth Sciences.

This improvement in laboratory equipment at WOU will continue to enable Earth Science graduates to be successful in their professional careers. The Earth Science program provides an exciting opportunity for WOU to integrate current advances in technology with content application. With a modest level of equipment support and infrastructure, Earth Science faculty members will be able to continue moving forward with respect to external funding opportunities, student recruitment, and community promotion of the Natural Sciences at WOU.

WOU Campus Groundwater Laboratory

Water is an essential resource that forms the crux of numerous environmental conservation issues in the Pacific Northwest. Recent examples in the news media include dam breaching, salmon habitat, Portland Harbor superfund designation, water contamination, seasonal impacts to hydroelectric production, and water rights issues in the Klamath Basin. The ability to understand and analyze hydrologic systems is critical to the State of Oregon, and forms an important component of the Earth Science program at WOU.

Proposed project action items include:

(1) Identification of suitable campus property that can be used to establish an outdoor groundwater laboratory for undergraduate training and research in hydrogeologic systems (based on informal conversations with the physical plant, a preliminary idea is to use portions of the open space to the west-northwest of the baseball field).

(2) Drilling and installation of three (3) groundwater monitoring wells in shallow alluvial aquifers on campus (anticipated total depths less than 30 m; with inter-well spacing of ~50 m).

(3) Purchase of well materials and field equipment in support of undergraduate training, LACC education, community outreach, and research in aquifer systems analysis.

Budget Request

The following is an itemized list of equipment needs to establish the proposed groundwater laboratory:

A. Electronic Groundwater Level Measurer	$800.00
B. Groundwater Pumping Apparatus	$2900.00
C. Field Water Quality Test Kits	$2300.00
D. Groundwater Remote Data Logger / Pressure Transducers	$3800.00
E. Water Sampling Accessories (e.g. bailers, sampling supplies)	$2500.00
F. Campus Well-Field Construction Materials	$7000.00
Total	**$19,300.00**

Based on a preliminary project feasibility assessment, drilling services will be provided gratis by Geo-Tech Explorations of Portland, however hard funds are needed to purchase well construction materials and related field equipment. Well construction materials include PVC pipe, sand pack, cement/grout supplies, and flush-mount security covers. The field hydrology equipment will be used to collect aquifer data, support classroom activities, and provide research tools for both faculty and students. The equipment will be extensively utilized in support of the following courses: ES202 Principles of Geology, ES302 Field Methods, ES322 Geomorphology, ES473/573 Environmental Geology, and ES476/576 Hydrology. The Earth and Physical Sciences Department currently has minimal field hydrology / environmental geology equipment. The proposed investments will greatly advance our curricular infrastructure and provide student access to state-of-the-art training facilities. The total annual number of students impacted by this project (all courses) will average ~70-80. In addition to training future geoscience professionals and providing liberal arts education, the groundwater laboratory will also be used for community outreach events and collaboration with local water resource professionals.

From: Adele Schepige
To: NSM Division Faculty
Date: 11/01/09
RE: Pending Changes to Elementary Education Program

To my valued NSM colleagues:

Steve sent me an email with a compilation of questions and statements from some of you regarding proposed changes to our undergrad elementary education program that could potentially impact science and mathematics. I have attempted to group the questions into themes and then address them. I hope my responses make sense, I also hope they answer questions rather than cause a whole bunch more. But if the latter is true I will do my best to answer them at the Nov. 3 Division meeting. My disclaimer is this: If it were up to me elementary ed. majors would all take a whole lot more science and math. But the reality is it is not that simple and there are competing interests!

Thanks to all of you for caring enough to ask the questions and providing review. I appreciate it.

Adele

But first, some background information.

1. Science has new state standards. Social studies is almost done with theirs. When social studies is completed, the 4 core areas will be done. Every grade level has its own standards, k-8th grade, then HS (10th grade). By 2013 all content areas- H, PE, F Lang, etc.. will be completed.
2. New graduation requirements: for this year's 9th graders and beyond. There will be student work samples, state wide tests, national tests and more to earn a diploma. The essential skills cut across all content areas and are listed below. The first 4 are for phased in for this year's 9th graders.

Read and comprehend a variety of text
Write clearly and accurately
Listen actively and speak clearly and coherently
Apply mathematics in a variety of settings
Think critically and analytically
Use technology to learn, live, and work
Demonstrate civic and community engagement
Demonstrate global literacy
Demonstrate personal management and teamwork skills

3. We had to add a special education course for our majors. It is a necessity. The range of students in classes is so great, and the needs are so great. That is in addition to non-native English speakers in class.
4. We have had to discuss: Number of courses vs. number of credits: Which should we count? Both matter.
5. We could not continue with a combined math/sci pedagogy course in education for a number of reasons.

At the end of this document is the summary of the standards in science in two different formats. You might want to refer to that, so I put it back there.

PROPOSED CHANGES TO ELEMENTARY ED. PROGRAM (as of Nov. 1, 2009)
Net change: Science is being reduced and mathematics increased, with a shuffle in programming.

Science Existing/Current		**Science Proposed Revision**	
Laboratory Science LACC	12 req but have 15	**Laboratory Science LACC**	Will have 15
BI 101	5	BI 101	5
ES104	5	ES104	5
ES106	5	ES 106	5
Science in Major		**Pre Ed core major**	
BI102 or ES105	5	BI102 or ES105 option eliminated and no longer in the mix	
GS311,312 or 313	3	GS2XX: New course –inquiry, Engineering design, and more content TBD	3
Education Core		**Pre Ed core major**	
ED453 Science/math shared	1.5/3	*ED3XX Elem Science methods; Details yet TBD.*	*3-4*
5 Sci + .5 ED = 5.5 courses 23 Sci cr+ 1.5 EDcr =	**24.5 sci related credits**	**4 Sci + ED = 5 courses 18cr Sci + 3-4cr ED**	**21-22 science related cr**

Mathematics: is moving from 15 credits to 18 credits for all elem ed majors. No focus areas so we have a small number of 15 cr all take with 3 cr of choice. They all have 18 credits.

Mathematics Current required (does not include focus area which most did not take anyway)		**Proposed required for All**	
BA BS Degree Req		**BA BS Degree Req**	
Math 211, 212, and 213	12 cr	Math 211, 212, and 213	12 cr
Mathematics (in major)		**Mathematics (in major)**	
MTH 396 Elem Problem Solving	3	MTH 396 Elem Problem Solving (All)	3
		MTH 392 Coll Algebra Elem Tchrs, 393, 394, or 398 (Choose 1)	3
Math pedagogy (in ED Prof core)		**Math pedagogy (in ED Prof core)**	
ED 453 Math/Sci Pedagogy	1.5/3	ED 453 Math Pedagogy	3
4 MTH + 1/2 ED = 4.5 courses Total 15cr MTH + 1.5 cr ED	**16.5 cr**	**5 MTH + 1 ED = 6 courses Total 18cr MTH + 3 cr ED**	**21 cr**

The answers to the questions!

red = Taylor questions and comments compiled from LAS colleagues, and emailed on 10/29/09,
blue are my responses in ITALICS.

Theme 1: Amount of Science Content Concerns

(1)"COE is effectively reducing the discipline-specific content level, and increasing ed-related pedagogy, is this the best approach for K-12 education",

(2) "COE is proposing to extensively double-dip on the LACC and effectively weaken the current major",

(3) The proposal you sent today, will effectively reduce the science content that elementary ed. students receive, and increase ed. pedagogy,

(4) By reducing the current requirements that "students choose BI102 or ES105" and change it to "no longer in the mix", and combining that with "eliminating the GS-methods courses and adding a new 3-credit nature of science course" could possibly reduce ES/BI 100 faculty FTE.

(5) Back in January, we started out with the idea of maintaining the existing ES100-BI100 requirements, and adding a requirement of students taking each of the GS-methods classes via cohorts, now we're eliminating the methods classes altogether,

(6) "COE is effectively building a framework for duplicate services, that are already covered by LAS faculty, effectively reducing dollars that are available for existing programs",

(7) "National trends in science education are moving towards more content, not less, why is COE moving in the other direction?"

(8) Several LAS divisions are questioning the motives of the proposed changes, which appear to be an attempt to shift WOU resources from LAS to COE,

These all seem to be related to content. I will try to tell how this came to be.

a. *Literacy (meaning reading and writing) and Mathematics clearly are in the driver's seat in education at k-6 level, no question about it. We have to better prepare them in those areas.*
b. *Current focus area selections: this system is CRAZY. Whoever invented it was a bit NUTS. One look at the catalog will confirm that. Some elementary students graduate with more art preparation than language arts.*
c. *Testing in schools: social studies is in the mix now. All 4 core areas have to be balanced now. (see table at end to show social studies changes as an example). Old program did not have a balance between core areas: Lang Arts, Math, Science and Social Studies.*
d. *Credit hours: LAS and H/PE have slowly been moving to 4 and 5 cr classes. With each change another credit is added on to our majors. For example, although the LACC requirements in science states 12 cr hours, there is no way for our majors to do that given the classes are 5 cr each. That puts us 3 cr of other science content short. When English made their courses 4 credits from 3, if we have them take all three ENG 104, 105 and 106 we now either have to tell them to pick two for 8 cr or three for 12cr, instead of 9. Credits add up when limited to close to 180cr.*
e. *In terms of ED credits- for math and science all we did was split the one math/sci combination into their own courses. So that is one 3 cr class.*

f. *The loss of Bio102/ES105- it is a matter of numbers. Some of our elem folks wind up with over 200 credits, with all of the 4-5 cr classes, the pre-requisites and sometimes hidden pre-reqs to those classes*
g. *We bumped up the math requirements. No longer taking a chance that someone might take math as a focus area. Now all will take a more appropriate amount of mathematics. (still could use more I think!)*
h. *We are not trying to move LAS to COE resources. We are trying to obtain a balance which is very difficult to do considering all of the content areas and educational demands before us.*

(9) Where exactly will students explicitly get their physical science content piece, as you see it now? You know the ES/GS sequence, and what's what, you were a key player in the redesign via the OCEPT project. I know where the bio and Esci will be emphasized, but what about the phys sci? (chem/physics basics?).
This has been problem in the past for all content areas- what do we leave out? If we look at all of the standards there is no way we can teach all of that unless they take about 2 years of science. But we can try to get them into courses that cover as much as possible. We have 4 science courses nad one ED course to try to get as much content to them as we can in science. The same holds true for the other content areas. For physicalScience

(10)What impacts will the proposed elem ed change have on the existing enrollments in Meterology-Oceanography-Astronomy-Geology for Educators (GS351) classes?
I know the elem ed enrollment in these classes has been low for a long time. We have only a handful who choose science as a focus area. So, I don't think it will have that much impact sicn ethe numbers were so low. However, and this leads to another conversation, I believe those courses and a few in Bio should increase if we promote elem/middle more (need to talk about that, for sure). Also, our elem majors have never had any, I mean ZERO, electives. We are now going to have them have, I believe, 2 electives. I will compile a list of courses that align to OR content standards to advise them to take. My preference is to have them use these electives for content, not for ED. I will have to find out more about that (being on sabbatical I am a bit out of the loop).

Theme 2: New course to replace GS311, 312, 313

(11) Requesting a new "nature of science" course proposal in the next week or two, one that effectively transforms the current elementary science education curriculum into something completely different, is not reasonable and ill-conceived. Curriculum proposals received in early January will still be included in the 2010-11 catalog, why not wait until then to flush out a well-reasoned proposal? *Well, I said in an email, I had to ask since the request came from my division chairperson. I agree with this statement. I had no idea about this deadline, I guess being on sabbatical I am partially in and partially out of a communication loop going on in my division. But- nature of science and engineering design – we do have to figure out where we will tackle those between Sci and ED. But this class should be content driven. We just need to determine the content for this 3 cr class. I am looking forward to meeting with folks to see what we can come up with. The course name really was a place holder, tentative- to remind us that between us those must be covered.*

(12) "How can NS propose a new "nature of science" course, to supplant the GS-methods courses, without knowing the details of the newly proposed 4-cr 300-level course that Adele will teach?"
Can't be done! We will plan together.

(13) Where will the structure and function (Life-Earth-Physical) and process and change (Life-Earth-Physical) "teaching methods" be taught? It sounds like the engineering design and scientific inquiry areas

will be covered in the newly proposed GS course, but what about the other two that are now covered by the existing methods courses?
We will have to sort this out. There can't be a Bio, an Earth and Phys Sci for elementary teachers course as separate courses anymore. We have to figure out a way to teach this differently. Between the new course and the Ed Sci methods course we will get this done. Hopefully meetings scheduled for this week will help determine this

Theme 3: Our degree
(14) "Why do many other states (e.g. CA) promote a 4-year B.S. content degree with a 5th year initial licensure certificate, and WOU has a 4-year undergraduate Ed. degree which inherently diminishes the knowledge base of the resulting teachers?"

This is essentially boils down to.

a. *TSPC is not turning away any initial license programs anymore. Any university that designs a program will be approved. That means competition for us. If TSPC and ODE would support what CA does we would love it. But that is not going to happen either. So we try to offer the best possible UG program we can, given the constraints put upon us. E.G.: SOU just reinstated their UG program for elem after only having an MAT. EOU elem is exactly 180cr. There are several private universities that have UG degrees. We even compete with Univ of Phoenix! We tried to get an elementary MAT approved a longtime ago and were told no, competition with Willamette's MAT/geographical area. I think we should try again.*

Theme 4: Accreditation
(15) "Why are there variations in the NCATE (greater) and TSPC (lesser) standards, and WOU COE defaults to lesser TSPC requirements, while touting national accreditation by NCATE? They can't have it both ways."

Very interesting the difference between TSPC and NCATE. Oregon is a TSPC/NCATE state. That means that TSPC aligns its requirements with NCATE. If we follow TSPC then we are supposed to be following NCATE. Now I don't think that is the case. Personally, I hope NCATE catches on to this (I think they have based on info reported at a meeting I was at a few weeks ago). I try to work from NSTA and NCTM and other professional associations. Just remember there are 23 different Professional Association Standards (SPAs) (NSTA, NCTM, NCTE, NCSS, ISTE, NAAEYC, NAAEE, and more) that NCATE has that we have to abide by. That is why we are a TSPC/ NCATE state. Without that, during accreditation we would have to document 23 separate SPA standards. All of them want their fair share of the pie.

Note that we are also influenced by ODE. They make the rules in terms of K-12 content. So when ODE adds an entire major strand of engineering design we have to take that seriously. How are we going to make sure our majors have experience in engineering design and understand that? It seems to me that a course that can teach science content along with process skills of science and engineering, and be explicit about them, would be most helpful. We can't ignore the ODE k-12 standards

Theme 5: PRE-ED majors changing majors
(16) "What happens when these students are juniors, bail out of the Ed program, and they have all these 100-200-300 "ED" prefix credits, and we have to figure out how to give them an B.S. Interdisciplinary Studies Degree to help them graduate?"

We have designed an advising mechanism that should be able to get pre-ed majors to change their majors way ahead of time, better than what happens now. We will have several gates. If they can't get beyond a gate they will need to pick a different major long before their senior year like it is now. ED faculty and central advising will be working collaboratively on this. We even have a part time ed advisor in our COE building now who will work with them.

Example- Pre-ed majors must pass certain tests before they can enroll in 200 or 300 level ed classes. Now it is okay for them to not pass the required tests right up until they apply. Way too late. There are not that many lower 100, 200 classes but enough for us to advise them to choose another field. I actually believe this plan will work.

(17) How will elem/ elem-middle advising be conducted in the newly proposed model? This could impact workload/assignments for NSM faculty.

With focus areas gone ECE and ECE/Elem will have advisors from Central Advising and teacher education only. Elem/middle and M/hs and hs only – we would like to see these folks have 2 advisors: one from the content area and one from the ED content specialist. Ultimately, since these students are ED majors the ED content specialist would need to be the final signature on documents. However, as we have started the process in mathematics, having agreements on courses, substitutions, and having good communication from both should serve the students better. We feel a partnership can work. I suppose if LAS faculty do not want to partner then that is something we will have to consider.

Example: Social science

Here is Social Science as listed in the catalog. If an elem ed major does not choose social science as a focus area then this is the only social science they will have in their degree. So in an attempt to balance across the 4 core areas we propose to add 6-8 cr depending on whether they take 3 or 4 credit courses. Total 18-20 cr, just like science.

Social Science (12)
Choose at least three courses from two or more areas:
ANTH 310, 311, 313, 332, 360, 370, 380, 494
CJ 213, 241, 451, 463
EC 201, 202
GEOG 105, 106, 107
HST 201,202, 203
HST 404, 405, 478
PS 201, 202, 203
SOC 223, 225, 338, 360, 437
SSC 201

Social Sciences Current **Social Sciences Proposed**

Social Science LACC	**12cr**	**Social Science LACC**	**12cr**
Select two courses from HST 201,202,203	8	Select two courses from HST 201,202,203	8
GEOG 106 or 107	4	GEOG 106 or 107	4
		Social Science (ed major)	**6-8**
		Select two courses from within one of the following sequences. PS 201,202,203 or ECON 201,202	6-8
Education		**Pre Ed core (ed major)**	
ED452 Soc St/Lang Arts	1.5/3	ED3XX Soc Stud Pedagogy for Elementary	3

NEW SCIENCE STANDARDS FROM OREGON DEPT. OF EDUCATION

This chart shows the grade-by-grade progression of the big ideas and content standards within each science discipline. It outlines a coherent progression in science content from kindergarten through high school.

	Physical	Life	Earth and Space
K	**Properties of Matter**: Characteristics of living and non-living things **Forces and Motion:** Motion	**Organization of Living Systems:** Characteristics of plants and animals	**Objects in the Universe**: Objects in sky **Matter and Energy:** Sun warms land, air, water
1	**Properties of Matter**: Properties of objects **Forces and Motion:** Force and motion	**Organization of Living Systems:** Characteristics of living things **Matter and Energy:** Needs of living things	**Properties of Earth Materials**: Properties of Earth materials
2	**Forces and Motion:** Objects and magnetic forces	**Matter and Energy:** Describe life cycles **Diversity:** Variety in living and non-living things	**Objects in the Universe**: Patterns of change in objects seen in the sky **Matter and Energy:** Temperature changes
3	**Properties of Matter**: States of matter **Forces and Motion:** Position, motion, speed	**Matter and Energy:** Compare and contrast life cycles **Diversity:** Characteristics of offspring and parents	**Objects in the Universe**: Earth as a planet **Matter and Energy:** Seasonal weather changes
4	**Forms of Energy**: Properties of energy **Changes in Matter:** Physical changes	**Interdependence**: Plants, animals, and environment **Diversity**: Fossils	**Properties of Earth Materials**: Properties, uses, and availability of Earth materials **Matter and Energy**: Earth surface changes
5	**Forces and Motion:** Effects of friction, gravity, and magnetic forces on objects	**Organization of Living Systems:** Living things are composed of parts **Interdependence**: Plants, animals, and environment **Diversity**: adaptation and survival	**Objects in the Universe**: Sun-Earth-Moon System **Matter and Energy:** Sun's energy affects weather and climate
6	**Properties of Matter**: Physical and chemical properties of matter **Forms of Energy:** Properties of forms of energy and waves **Energy Transfer:** Electricity, magnetism, waves	**Organization of Living Systems:** Components, types and complexity of cells, tissues, organs, and organ systems **Matter and Energy:** Interactions within organisms **Interdependence:** Organisms, populations, and resources in ecosystems	**Objects in the Universe**: Objects in our solar system, galaxy, and universe **Matter and Energy:** Water cycle, landforms, and weather
7	**Properties of Matter**: Atoms, elements, and compounds **Forces and Motion:** Types of motion and forces and gravitation	**Matter and Energy:** Energy and materials for growth and metabolism of organisms, **Evolution and Diversity:** Reproduction, life cycles, inherited and learned traits, genes, chromosomes	**History of Earth**: Changes in Earth's atmosphere and landforms **Matter and Energy:** Use of Earth's resources, natural processes, human activities, and global environmental changes

8	**Properties of Matter**: Atomic model, physical and chemical properties of elements and compounds, Periodic Table **Changes in Matter:** Physical and chemical changes and conservation of mass **Energy Transfer and Conservation:** Conservation of energy	**Organization of Living Systems:** Classification, internal and external structures, relationships among organisms **Evolution and Diversity:** Natural selection, evidence for evolution	**History of Earth:** Geologic, climatic, environmental and life form changes **Matter and Energy:** Processes of Earth's atmosphere, oceans, and geosphere, and gravity, motions, and Earth changes
H	**Properties of Matter:** Atomic structure, Periodic Table, isotopes, radioactivity, types and strengths of bonds and properties of compounds **Changes in Matter:** Chemical reactions and conservation of mass **Energy Transfer and Conservation:** Interactions of energy and matter, conservation of energy **Forces and Motion:** Interaction of forces on an object and the resultant motions	**Organization of Living Systems:** Organic macromolecules, cellular processes, DNA, proteins **Matter and Energy:** Energy and elements cycle through biological systems **Interdependence:** Relationships between biotic and abiotic factors and disturbances and change in ecosystems **Evolution and Diversity:** Reproduction, genetic diversity, and multiple lines of evidence for evolution	**Objects in the Universe**: Properties and classification of objects in our solar system, galaxy, and universe **Properties of Earth Materials:** Structure and composition of Earth's atmosphere, geosphere, and hydrosphere **History of Earth:** Evolution of universe, galaxies, stars, and planets **Matter and Energy**: Effects of energy, forces, processes, and human activities on Earth systems, cycling of matter and energy

Vertical Articulation of the Core Standards

	Structure and Function	Interaction and Change	Scientific Inquiry	Engineering Design
K	The natural world includes living and non-living things.	Living and non-living things move.	Science explores the natural world through observation.	Engineering Design is used to design and build things.
1	Living and non-living things have characteristics and properties.	Living and non-living things interact.	Science explores the natural world using evidence from observations.	Engineering Design is used to design and build things to meet a need.
2	Living and non-living things vary throughout the natural world.	Living and non-living things change.	Scientific Inquiry is a process used to explore the natural world using evidence from observations.	Engineering Design is a process used to design and build things to solve problems or address needs.
3	Living and non-living things vary in their characteristics and properties.	Living and non-living things interact with energy and forces.	Scientific Inquiry is a process used to explore the natural world using evidence from observations and investigations.	Engineering Design is a process that uses science to solve problems or address needs or aspirations.
4	Living and non-living things can be classified by their characteristics and properties.	Living and non-living things undergo changes that involve force and energy.	Scientific Inquiry is a process of investigation through questioning, collecting, describing, and examining evidence to explain natural phenomena and artifacts.	Engineering Design is a process of using science principles to solve problems generated by needs and aspirations.

5	Living and non-living things are composed of related parts that function together to form systems.	Force, energy, matter, and organisms interact within living and non-living systems.	Scientific Inquiry is a process of investigation based on science principles and questioning, collecting, describing, and examining evidence to explain natural phenomena and artifacts.	Engineering Design is a process of using science principles to make modifications in the world to meet human needs and aspirations.
6	Living and non-living systems are organized groups of related parts that function together and have characteristic properties.	The related parts within a system interact and change.	Scientific Inquiry is the investigation of the natural world based on observation and science principles that includes proposing questions or hypotheses, and developing procedures for questioning, collecting, analyzing, and interpreting accurate and relevant data to produce justifiable evidence-based explanations.	Engineering design is a process of identifying needs, defining problems, developing solutions, and evaluating proposed solutions.
7	Living and non-living systems are composed of components that affect the defining characteristics and properties of the system.	The components and processes within a system interact.	Scientific Inquiry is the investigation of the natural world based on observation and science principles that includes proposing questions or hypotheses, designing procedures for questioning, collecting, analyzing, and interpreting multiple forms of accurate and relevant data to produce justifiable evidence-based explanations.	Engineering design is a process of identifying needs, defining problems, identifying constraints, developing solutions, and evaluating proposed solutions.
8	Systems and their components function at various levels of complexity.	Systems interact with other systems.	Scientific Inquiry is the investigation of the natural world based on observations and science principles that includes proposing questions or hypotheses and designing procedures for questioning, collecting, analyzing, and interpreting multiple forms of accurate and relevant data to produce justifiable evidence-based explanations and new explorations.	Engineering design is a process of identifying needs, defining problems, identifying design criteria and constraints, developing solutions, and evaluating proposed solutions.
H	A system's characteristics, form, and function are attributed to the quantity, type, and	The components in a system can interact in dynamic ways that may result in change. In systems, changes occur	Scientific Inquiry is the investigation of the natural world by a systematic process that includes proposing a	Engineering design is a process of formulating problem statements, identifying criteria and constraints, proposing

	nature of its components.	with a flow of energy and/or transfer of matter.	testable question or hypothesis and developing procedures for questioning, collecting, analyzing, and interpreting multiple forms of accurate and relevant data to produce justifiable evidence-based explanations and new explorations.	and testing possible solutions, incorporating modifications based on test data, and communicating the recommendations.

Subject	**FW: Facilities Workshop at Linfield Nov. 21 - Yes or No to participate??**
From	Stephen Scheck <schecks@wou.edu>
Date	Monday, November 2, 2009 8:11 am
To	taylors@wou.edu , lemastm@wou.edu , kazeror@wou.edu , templej@wou.edu , Klay Kruczek <kruczekk@wou.edu>
Cc	"Hill, Kathy" <hillk@wou.edu>

Hi all,

In terms of thinking about the future of NSM labs, future building (!) and science networking...I would cover the registration costs for any WOU personnel in your departments who would like to attend the Nov 21 PKAL meeting about lab facilities. Registration is as a team of five—so if we have more than 5 total, I'd send in additional team registration. I'll be attending, also. Just let me know if you are interested in attending and I'll take care of the registration.

Link to the program is below.

Steve

Stephen Scheck, Ph.D.
Dean
College of Liberal Arts and Sciences
Western Oregon University

From: Moore, Marlene [mailto:moore@up.edu]
Sent: Tuesday, October 20, 2009 6:01 PM
To: Moore, Marlene; Liz Atkinson; Marlene Moore; Favero, Terry; Walter Shriner; dpcraig@willamette.edu; C. Gary Reiness ; Hayes, John W.; Stephen Scheck
Cc: Project Kaleidoscope
Subject: RE: Facilities Workshop at Linfield Nov. 21 - Yes or No to participate??

http://www.pkal.org/activities/PKALWorkshopLinfield.cfm

The link above will take you to the website for our facilities workshop on Sat. Nov. 21 at Linfield College.

Marlene

Marlene Moore, Ph.D.
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Learning Outcomes & Learning Spaces

November 21, 2009

Linfield College
McMinnville, Oregon

AUDIENCE

This workshop will be of value to campuses at an early stage in shaping and reshaping learning spaces for undergraduate communities of learners. Institutional teams are preferred.

GOAL

To help participating teams develop a roadmap for planning spaces that address goals for student learning including:

- Making quick fixes that improve current spaces for learning.
- Identifying characteristics of physical spaces that accommodate constructive pedagogies, interdisciplinary connections, learning communities.

APPROACH

During the one-day workshop, participants will:

- explore "learning spaces that work" to help students reach learning outcomes
- identify key questions and processes by which those spaces were imagined, realized and assessed
- develop short- and long-term agendas for transforming learning spaces

RESOURCES

Academic leaders involved in shaping undergraduate environments for learning give attention to how spaces:

- Serve goals for student learning (program and institutional learning outcomes).
- Reflect institutional priorities and strategies to strengthen student learning.
- Make prudent use of institutional resources.

Architects share essential best practices for getting the planning of learning spaces "right." They will focus on four of the critical issues that must be dealt with to shape ideal learning spaces.

- Pedagogy
- Technology
- Community
- Sustainability

Project Kaleidoscope (PKAL) resources on planning facilities support this workshop sponsored by the Portland regional PKAL network (PortPKAL).

Subject

From Stephen Scheck <schecks@wou.edu>

Date Friday, October 16, 2009 12:54 pm

To baxterd@wou.edu , kruczekk@wou.edu , braad@wou.edu , courtna@wou.edu , hickersr@wou.edu , jenseki@wou.edu , dickinse@wou.edu , ferrarc@wou.edu , gibbons@wou.edu , hoffmak@wou.edu , hoobleg@wou.edu , hargred@wou.edu , lemastm@wou.edu , mcgladm@wou.edu , phillipm@wou.edu , lobnibei@wou.edu , templej@wou.edu , rabornj@wou.edu , kazeror@wou.edu

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Dear chairs and department heads,

As departments review catalog issues, please ask that faculty examine what currently is listed both under their program description section and in the class descriptions section.

Several objectives:

1. make certain that the text actually states what the faculty wish to see
2. make certain course descriptions are accurate, e.g., state "can be repeated for credit" , "can be repeated for credit if new topic material", etc. Some students are getting caught in a paperwork nightmare when a department intends for this to occur, but the catalog does not state it and Banner system isn't coded as such.
3. check course descriptions for briefness and clarity (clarity to a student!) as well as to add descriptions to course listing that have no description of what takes place (or can take place) in that course
4. check feasibility of breaking up single (long) course description entries (that summarize courses in the sequence and their various prereqs) into separate free-standing course entries

No time-table or "report" expected on this...just catalog editing so we can strengthen the 2010-1011 catalog.

Regards,

--Steve

Stephen H. Scheck, Ph.D.
Dean
College of Liberal Arts and Sciences
Western Oregon University
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Monmouth OR 97361
503-838-8226
503-838-8034 (fax)

NATURAL SCIENCES – MATHEMATICS
DIVISION ADVISORS 2009-2010

Biology Major:

General Biology Emphasis:.....Dr. Bryan Dutton, Dr. Kristin Latham, Dr. Erin Baumgartner
Botany Emphasis:.....Dr. Bryan Dutton
Ecology Emphasis:.....Dr. Bryan Dutton, Dr. Karen Haberman
Molecular / Cell Emphasis: .....Dr. Sarah Boomer, Dr. Kristin Latham
Zoology Emphasis:.....Dr. Karen Haberman, Dr. Michael LeMaster
Education Emphasis: .....Dr. Erin Baumgartner, Dr. Bryan Dutton, Dr. Karen Haberman

Pre-Professional Programs:

Pre-Dental Hygiene:.....Dr. Sarah Boomer
Pre-Nursing:.....Dr. Michael LeMaster
Pre-Dental:.....Dr. Sarah Boomer
Pre-Medicine (including Pre-Optometry):.....Dr. Bryan Dutton
Pre-Medical Technician:.....Dr. Karen Haberman
Pre-Occupational Therapy:.....Dr. Irja Galvan
Pre-Pharmacy:.....Dr. Irja Galvan
Pre-Physical Therapy:.....Dr. Irja Galvan
Pre-Physician's Assistant:.....Dr. Bryan Dutton
Pre-Veterinary Medicine:.....Dr. Karen Haberman

Chemistry

BA/BS Chemistry.....Dr. Rahim Kazerouni, Dr. Arlene Courtney, Dr. Pete Poston

Forensic Chemistry, Forensic Minor.....Dr. Arlene Courtney, Dr. Patricia Flatt

Mathematics

BA/BS Math, BS Math/CS
Secondary (MS/HS) Math Education, Math Minor,.Dr. Mike Ward, Dr. Hamid Behmard, Dr. Scott Beaver, Dr. Klay Kruczek, Dr. Cheryl Beaver

Grad/Post-Bac MS/HS.....Dr. Scott Beaver

Early Childhood/Elementary Math Education
Elementary/Middle School Math Education, Math Ed Minor
Grad/Post-Bac K-8..... Dr. Klay Kruczek, Dr. Laurie Burton, Dr. Cheryl Beaver

Earth and Physical Sciences

Earth Science and Geology.....Dr. Jeff Templeton, Dr. Steve Taylor, Dr. Jeff Myers

Pre-engineering, Pre-physics option.....Dr. William Schoenfeld, KC Walsh

Technical Applications.....Dr. William Schoenfeld, KC Walsh

Secondary Integrated Science
Education (Undergraduate).....Dr.Rahim Kazerouni, Dr. William Schoenfeld (Sabb.)

Secondary Integrated Science
Education (Graduate).....Dr. Jeff Templeton

Science for Elementary Education.....Dr. Jeff Myers

For information or a visit to campus, call or write to the above individuals
Division of Natural Sciences & Mathematics

Subject	**NSM ACTION NEEDED: Classroom Observations of Adjunct Instructors**
From	Steve Taylor <taylors@wou.edu>
Date	Thursday, October 22, 2009 7:25 pm
To	boomers@wou.edu , duttonb@wou.edu , galvani@wou.edu , habermk@wou.edu , lemastm@wou.edu , courtna@wou.edu , kazeror@wou.edu , postonp@wou.edu , myersj@wou.edu , taylors@wou.edu , templej@wou.edu , beaverc@wou.edu , beavers@wou.edu , behmarh@wou.edu , burtonl@wou.edu , kruczekk@wou.edu , wardm@wou.edu , schoenfeldw@wou.edu
Cc	winslon@wou.edu

Colleagues - The Provost recently met with division PRCs and reviewed the annual faculty review procedures. According to the collective bargaining agreement, our non-tenure track ("adjunct") faculty who are above 0.5 FTE or more, "will be evaluated annually". The annual evaluation will be based on: (1) one classroom observation, and (2) an annual faculty report compiled by the non-tenure track faculty member (including comparative SIR data and report of accomplishments).

It has been brought to my attention that the NSM Division has not had a systematic non-tenure track evaluation system for a significant number of years now. Upon review of the personnel files, I can find no record of consistent submission of annual adjunct reports or classroom observations. As such, the dean has emphasized the need to rectify this weakness in our annual division assessment protocol. We currently have 5 adjunct faculty in biology, 4 in chemistry, 5 in earth science, 6 in math, and 1 in physics for a total of 21 (by my estimates, some more active than others).

I don't think anyone can argue the significant contributions that our dedicated adjunct pool provides to the division, or the support and flexibility that they provide the tenure-line faculty when it comes to course release, lower-level service-course assignments, covering our classes so that we can conduct research activities, etc. As such, I think it of the utmost importance that our corps of tenured faculty contribute to supporting our adjunct colleagues in their academic endeavor. Given the large number of adjuncts that we house in our division, all tenured hands are needed in conducting annual classroom observations.

After a discussion at a recent LAS college division chairs meeting, I have found that the other divisions divide the adjunct observation/review chores amongst the tenured faculty. Given the large no. of adjuncts, and the the breadth of content areas, this seems like a most reasonable approach for the NSM Division as well. Dean Scheck is in agreement with adopting this approach.

As such I am requesting assistance from the NSM tenured faculty "A-team" to assist in rectifying our systemic deficiency with respect to annual adjunct classroom observations. Attached is a draft1 assignment list that links a tenured faculty to an adjunct. I have tried to minimize obvious conflicts of interest and take into account sabbatical time, etc. As it turns out for Biology, Chemistry, and Math, each tenured faculty has 1 review to conduct. The Earth and Physical Scientists will have 2 per faculty member due an anomalously high adjunct:tenure line ratio (~65%) in that program area.

If we work as a team, this particular chore will be somewhat equitably distributed across the program areas. The chore specifically will be for each observer/designee to complete a classroom observation of their respective adjunct reviewee (sometime this academic year), fill out a standardized classroom observation rubric (see attached), and write a 1-page letter discussing any strengths, weaknesses, and/or recommendations. Upon submission of the reveiw to the division chair, I will meet with the respective adjuncts and discuss the results of the observation, provide recommendations , etc. Once we establish a rotation and process, we will proceed systematically into future academic years.

Please review the above proposal and the attached assignment list + observation rubric. This item will be on the agenda at the next division meeting Nov. 3, and we can discuss further, as needed.

Those colleagues who are in agreement with the proposed process, please feel free to move forward and arrange classroom observations with your assigned reviewees, as time and scheduling permit. They need to be done one way or another, and your help will be appreciated. Those who would like to discuss other options or provide alternative solutions, can do so at the Nov. 3 meeting or send email directly with feedback.

Thanks to all in advance for your efforts and service in this and other matters of the division. It is greatly appreciated.

s.t.

Steve Taylor, PhD
Associate Professor of Geology
Chair, Division of Natural Sciences and Mathematics

c/o Earth and Physical Sciences Department
345 N. Monmouth Ave.

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Natural Science and Mathematics Adjunct Faculty - Classroom Observation Assignments 2009-2010									
Draft 1 - Oct. 22, 2009									
Last_Name	**First**	**Rank / Status**	**Program**	**Yr Hired**	**Term Hired**	**Classroom Observation Date**	**Reviewer1 Name**	**Reviewer2 Name**	**Comments**
Aldrich	Pat	Adjunct	Biology	2009	Spring		Irja Galvan		
Aune	Catherine	Adjunct	Math	2006			Cheryl Beaver		
Barnes	Tom	Adjunct	Chemistry				Rahim Kazerouni		
Bledsoe	Karen	Adjunct	Biology				Mike LeMaster		
Boes	Megan	Adjunct	Math				Scott Beaver		
Brown	Karen	Adjunct	Earth Science				Jeff Myers		
Cole	Sam	Adjunct	Chemistry	2009	Fall		Rahim Kazerouni		
Dutton	Emma	Adjunct	Biology	2009	Spring		Karen Haberman		
Ellingson	Don	Adjunct	Earth Science				Steve Taylor		
Greco	Stephen	Adjunct	Math	2009	Winter		Klay Kruczek		
Husen	Nicholas	Adjunct	Math	2008	Fall		Hamid Behmard		
Leung	Stanley	Adjunct	Math				Laurie Burton		
MacDonald	Scott	Adjunct	Biology				Bryan Dutton		
Oxford	Jeremiah	Adjunct	Earth Science	2008	Winter		Jeff Myers		
Russell	Spence	Adjunct	Chemistry	2007	Fall		Pete Poston		
Short	Sara	Adjunct	Chemistry				Arlene Courtney		
Smith	Grant	Adjunct	Earth Science	2008	Winter		Jeff Templeton		
Snyder	Jeffrey	Adjunct	Biology				Sarah Boomer		
Spencer	Dennis	Adjunct	Math				Mike Ward		
Wade	Phillip	Adjunct	Earth Science				Jeff Templeton		
Walsh	Kenneth (KC)	Adjunct	Physics	2008	Fall		Steve Taylor		

11/2/2009 **2009-2010 DIVISION BUDGET UPDATE**

Budgeted amount for Supplies and Services **902**				$52,314	
		10/31/2009		$52,314	
ESTIMATED GENERAL OFFICE OPERATING EXPENSES		To date	Bud	$47,314	
	Phones	$9,277	$24,000		
	Copiers	$2,128	$10,000		
	Office Supplies & Book Store	$825	$3,000		
	Postage	$20	$500		
	Duplicating Services	$116	$300		
	Faculty travel	TBD	$4,000		
	Physical Plant - work orders	$3	$2,500		
	Photo copy supplies - overheads	$134	$0		
	Telecommunication wiring		$1,000		
	Misc.	$75	$2,014		
TOTAL ESTIMATED GENERAL EXPENSES				$47,314	
MATHEMATICS				$5,000	
	Money already spent 902			$124	
	NSM941 Course-related expenses budgeted			$3,000	
	Lab fees expended			$124	
	SEP/DEP MTH70-95 - Course-related Toner-Copier-Supplies (TBD)				
	Balance	Total balance		**$7,753**	
	"==========				
DEPARTMENT BUDGETS	NSM922				
BIOLOGY	NSM922 Starting budget			**$46,454**	$46,454
	Summer lab fees rolled into 2009-10			$2,640	
	Money already spent			$15,387	
	Balance			**$33,707**	
EARTH & PHYSICAL SCIENCE	NSM922 Starting			**$41,107**	$41,107
	Summer lab fees			$880	
	Money already spent			$3,777	
	Balance			**$38,210**	
CHEMISTRY	NSM922 Starting			**$23,840**	$23,840
	Summer lab fees			**$880**	
	Money already spent			**$7,181**	
	Glass breakage			**$0**	
	Balance			**$17,539**	
NATURAL SCIENCE STUDENT INFRASTRUCTURE AND OVERHEAD					
STUDENT LAB NETWORK	NSM922 Starting			**$5,000**	$5,000
	Money already spent			**$0**	
	Balance			**$5,000**	
STUDENT PAPER	NSM922 Starting			**$5,500**	$5,500
	Money already spent			**$0**	
	Balance			**$5,500**	
FIELD TRIP				**$4,500**	$4,500
	Money already spent			$835	
	Balance			**$3,666**	
EQUIPMENT REPAIR				**$2,500**	$2,500
	Money already spent			$658	
	Balance			**$1,842**	
Medequip (Still)				$3,800	$3,800
Willamette Water (Softener)				$450	$450
NW Natural Gas				$250	$250
				$4,500	
Contingency 8% of Total NSM922 Budget				$11,600	$11,600
					$145,001