#### Science

## Ideas for Instructional Redesign

Some groups did not note priorities. For those that did, an \* denotes first priority, \*\* denotes second, etc.

#### **Revenue Enhancers**

#### First Priority:

- \* Increase enrollment through increased course offerings to community as a whole (credit/non credit)
  - LCC could offer professional development and worker trainings in all science disciplines not just Energy Management – pay instructors handsomely; result: cash and FTE for division and the college.
    - a. contact businesses to find out what technical professional training is needed and offer course tailored to their needs, or rent space for same.
    - b. start new certification programs
    - c. offer short courses with certificates of completion, e.g., refresher weekend class(es) to Health Care Professionals (nurses, phlebotomists, imaging techs, MOA, etc.)
    - d. Do continuing ed for K-12 science teachers.
  - 2. Online courses
    - a. increase enrollment in existing courses
    - b. offer additional courses such as CH 105 and CH 106.
    - c. Expand online courses to serve audience well beyond Lane county's borders (FY08).
    - d. For FY2009 and beyond, offer more degrees on-line. For example, continue Energy Program as is and design the program as an online program (will require lots of curriculum development).
  - 3. High school linkages
    - a. teach bridge courses with high school (Duckling now available for UO; LCC should do same)
  - 4. 1-credit seminars with local experts.
  - 5. Assess community need for, then build new courses and programs, e.g., X-ray tech program, Physician Assistant program. (FY 09+)
  - 6. Supplemental courses for existing courses (1-2 credit, e.g. problem solving in chemistry) also helps with increasing student success.
  - 7. Science for dummies—courses that are accessible for students who have science phobia keep it at a very introductory level so material is not over students heads
  - 8. CRNs and fees for field trips increase FTE and other revenues.
  - 9. Workshops modeled on Rights of Passage program, summer academies.
  - 10. Long-term sequence of summer workshops on Islam, war & peace & relation.
  - 11. Create friendly, hip outreach courses.
  - 12. Create elder courses.
  - 13. Std lecture that microbiology instructor takes to community with small fee (also enhances LCC's image).
  - 14. Science 20: What is an atom?
  - 15. Science 52: with MTH052
  - 16. Science 65: with MTH065
  - 17. Science 95: evolution, etc for students not ready for > 100

# \* Increase enrollment through improved outreach, advertising and visibility of LCC courses and programs. Now, 08 and beyond.

- 1. Improve & increase interface with the community thru more, more catchy, & more frequent marketing that highlights (a) the great ways we teach and (b) the student successes.
- 2. Advertise in every media: personally (one on one), newspapers (local, Torch, UO, H.S.), radio (KLCC and more), TV, posters in hallway. Better use of hallway space to attract students (who does: faculty in disciplines).
- Create discipline specific informational pamphlets (like the one made for physics) to attract students.
- 4. Science programming besides telecourses on LaneTV to attract students (or channel 29?)
- 5. Active marketing recruitment from U of O, foreign students, etc / \*Message: take our sciences here; they are cheaper; they transfer to 4 yr (Start here, finish anywhere).
- 6. Target marketing to specific job groups for future employees.
- Create discipline level subcommittee for academic year in charge of hallway displays/other marketing
- 8. Market to chiropractic colleges and/or chiropractors for undergraduate education.
- 9. Increase awareness of major's science in community.
- 10. Require Science in other programs.
- 11. Retrain student tour guides so all science disciplines are presented favorably.
- 12. EOR recruiting and long term academic planning.
- 13. (FY09) Offer science-activity-based recruiting weekends to attract students.
- 14. Science Fair.
- 15. Ads with coupon for discounted course
- 16. Get a Lane Science student (who meets the other qualifications) writing for the Monday 20-Below section of RG (to attract more students)
- 17. List courses in more than one place such as physical science as a sequence and under each discipline.
- 18. High school linkages
  - a. Advertising in 4J. Outreach to high school science teachers.
  - b. Go to high schools and bring high school students to LCC for better exposure
  - c. Be responsive to what high school students want! (FY07+)
  - d. Career Day, go to high schools, pictures on 3 screens, multimedia 20 min, follow by counseling day at Lane. (FY 08+)
  - e. Expand Women in Science program.
  - f. Encourage home-school students to attend LCC.

# \* Increase enrollment and student success through improved affordability

- 1. Tuition discounts for increased credit load.
- 2. Reduce tuition for evening and weekend courses.
- 3. Lower cost for remedial courses to get students off to a good start.
- 4. Remove unnecessary math prerequisites for geology and environmental science courses.
- 5. 1 more year on academic probation why shut the door?
- 6. To determine a student's financial aid eligibility, use GPA based on cumulative performance, not just the grades for one term.
- Consider sliding scale tuition, especially for low enrolled classes, evening, afternoon, weekend.
- 8. Textbook rental.
- 9. Reduce use of print textbooks in favor of low- or no-cost online resources.
- 10. Develop more scholarships.
- 11. Tuition rebate for those who get A's or B<sup>+</sup>'s or who get thru upper level courses; carrot & stick.

#### \* Increase enrollment and student success through improved retention

- 1. SRC tutors help in labs in classes to help link students with tutors more visibility for tutors.
- 2. Encourage all instructors to intervene when a student is failing take the student to the SRC and introduce them to a tutor.
- 3. Better scheduling, program: 2 yr plan (core major sequence)
- 4. Core 1<sup>st</sup> year for biology. Connect/align required courses for science majors.
- 5. Increase full-time instructors FY 09 and beyond).
- 6. "Fired up" Science module, for example, first year experience for health occupations track.
- 7. Supplemental instruction (also listed in new courses).
- 8. Create learning modules for A&P as in flexible sequence algebra.
- 9. Capstone Retention (seminar courses).
- 10. Work with counselors to know numbers in each major.
- 11. Make friendlier, less institutional classrooms (lights, fabrics...).
- 12. Add more learning communities.
- 13. Create a prerequisite of GS fundamentals to prepare students for other 100-level classes (FY 08+).
- 14. Expand/formalize group tutoring (work study, learn & earn, co-op ed).
- 15. Implement early warning and intervention for students.
- 16. Intrusive advising.
- 17. Encourage first year students to actively seek schedule planning. Emphasize the importance of math in first year.

# \* Increase revenue through:

- 1. Write grants
- 2. Increase revenue by text writing
- 3. text publishing Sell packets for profit at other schools (FY 08)
- 4. sell land
- 5. rent land
- 6. parking fee
- 7. Bake sale
- 8. Car wash
- 9. Magazine drive
- 10. Hit up Alumni
- 11. Classes funded by external sources
- 12. New Program, Lab Tech, externally funded
- 13. Mushroom and plant sales.
- 14. Do restoration work for academic credit (students) and profit (institution) (08). Could also be part of expanded course offerings)
- 15. Fund raisers similar to Long Tom Grange; i.e. Men of Energy Management 06-07 pictorial.
- 16. Support political action; ACE Americans Committed to Education
- 17. Get contributions from local businesses (equipment, donations, sponsors).
- 18. Implement SRC fee. (FY 07+)
- 19. Contract training.
- 20. Rent out unused rooms
- 21. Sell naming rights to the Science Building (FY 09+)
- 22. Increase student lab fees. (FY 07+)
- 23. Add student printing fees. (FY 07+).
- 24. Cadaver lab built off 107; bond level long term / rent trailer in the short term.

Misc:

Feasibility judged as low

CML = casino (stats lab)

Patenting Biotech lab products (and selling)

Dump one FT faculty from every division (draw straws?) (Note: not revenue neutral)

Term limits so high paid FT & PT faculty must leave

Install pay toilets

Work for free

Ideas or connection to revenue not clear

Games for profit CIT & Biology (as in lottery games or software development?)

(NOW) Get a vision for the Division

(NOW) Develop values for Science and integrate all our efforts

Secondary Ed Structure / very low

-Universities to 3<sup>rd</sup> year and up

# **Efficiencies and Productivity (\*denotes first priority)**

#### FY 07:

- 1. \*Energy efficiency 50% reduction possible campus wide
  - a. cut summer air conditioning everyone is complaining that it is too cold in many rooms, while it was too hot in others.
  - b. use current equipment as it was intended to be used to save energy
  - c. real energy education
  - d. turn off lights in parking lots and buildings earlier one hour after last class
  - e. cancel classes after 5 pm on the Wed. before thanksgiving and save on energy
  - f. put signs up on the automatic doors asking students to save energy by not using them unless they are handicapped
  - g. turn off computers when not in use in classrooms and in offices saves energy and reduces spread of viruses
  - h. low flow devices on sinks campus wide
- 2. \*Fewer meetings (FY 07+)
- 3. \*Hire key support staff (labs/techs/budget analysts/ IRAP) (FY 08+).
- 4. \*Fill 2 extra seats in each class
- 5. \*Standardize labs ease burden on stock room setup
- 6. \*Printing and Photocopying
  - a. photocopy to printer
  - b. individual photocopy accounts for accountability
  - c. cut photocopying
  - d. Electronic packets. Materials good for a year. Post new things on web site.
  - e. Send print requests as PDF files directly to P&G.
  - f. Require students to buy copy cards to make paper copies—cut down on paper printing costs (use the UO as a model for this)
- 7. Classroom/Instruction
  - a. Larger classes model (lecture plus lab) if fits pedagogy. Different model: instructor plus assistant (tutor) to run labs/discussions.
  - b. More on-line classes (paperless, larger)
  - c. Increase full time instructors.
  - d. Have student purchase equipment for classes if used a lot (i.e. student buy binoculars for birding classes).
  - e. Unique hits past full add classes as they would fill.
  - f. Students developing a year/2 year academic schedule for Lane as assignment.

- g. sometimes we should not wait for assessment to implement ideas example National Parks and Rocks and Minerals classes – since that would cause delay in starting up higher enrollment classes
- 8. Reuse surplus stuff
  - a. have lists available for what exists in surplus
  - b. have lists available for what reusable office supplies exist
- 9. Encourage bus riding (parking fee), don't build more parking spaces
- 10. To encourage increases enrollment in online courses, allow suitable workload reduction for faculty who agree to allow more students in their online courses (How does this save money? The instructor teaches more students, but fewer sections).

# 11. Support Staff

- a. More staff in IRAP or access for faculty.
- Stagger College request processes.: Redo deadlines so not all at the same time. Don't change Unit Plan format every year.
- c. Synchronize lab sequences for lab prep.
- d. Targeted tutoring sessions in SRC.
- e. Group mentoring for new part time instructors on student services, LCC, etc.
- f. Building cleaning cycle

## 12. Technology Efficiencies

- a. e-portfolios.
- b. More electronic communications vs meetings (portal?)
- c. Send e-mails only if you like to receive it.
- d. Complete Tech. Support staff.
- e. Student lap top use Wireless hubs.
- f. Instructor lap tops between office, home, classroom, and meetings.
- g. Connect technology additions to technology support.
- h. \* Use technology instead of meetings.
- i. Computer labs where students can do more technology labs (FY 09+).
- j. only replace computers when they need to be replaced rather than an automatic replacement cycle (FY 08+)
- k. Full time computer tech (FY 08+)
- I. All printers double sided and all computers default to print double sided (FY 07+). Book ordering online winter term
- m. Groupwise and Moodle access from home that's not horribly slow (i.e. if you have dial up service from home really, really slow email)
- n. Send printing to P&G online/electronically
- Copy cards so students can print out own notes from moodle rather than faculty printing them for students.
- p. Computer troubleshooting manual for after hours instructors (what if something goes wrong and there is no computer support available) (FY 07+).

## 13. Accounting efficiencies

- a. Change budget processes—allow year-end carry over would increase incentive to save (would allow departments to place larger orders, more costly purchases and equipment repair could be planned).
- b. Bulk supply/lab orders.
- c. Multi-year ordering for economy of scale (FY 08+)
- 14. Reduce safety issues before lawsuits result (i.e. doors that don't close in the building on the weekends, handrail in the parking lot)
- 15. Share equipment (things that aren't frequently used) across disciplines and across campus to share on duplication of equipment costs (hopefully will happen in new GIS program).

- 16. Analyze all non-instructional services to see how they add value and save outside contract costs (ex, food services & campus plumber versus service contract) (FY 09+).
- 17. The Aspire magazine is inefficient e.g. lack of dates and times for credit courses. If you want students to get the information from the Internet, then send out a glossy tri-fold instead of mailing an expensive, but inefficient magazine (FY 08+).
- 18. Move State to semester system (FY 09+).
- 19. Develop coherent lab curriculum (scheduling/preparation).
- 20. Use graders for faculty efficiency (FY 09+).
- 21. Term and Annual Scheduling
  - a. Staggering classes so there is more than 10 minutes between big setup classes (FY 08 +)
  - b. Review enrollment history to select sections not likely to fill; remove those from schedule before enrollment begins.
  - c. Make sure that all classes can be fully enrolled before adding additional sections.
  - d. Cut low enrollment classes early so students don't lose out and can register in new classes.
  - e. Consolidate low enrollment courses.
  - f. When a test or lab practical (i.e. bone, rock labs) requires longer set up, use other rooms.

#### 22. Restructure the college

- a. Consider restructuring to a dean/department chair system. Set term limits so admin rotates.
  (FY 08+)
- b. Remove positions that do not add value to learning. Speeding up/streamlining/making transparent/consistent part-time faculty teaching assignments (have the process documented and outlined so faculty know when they will get teaching assignments) (FY 08+) Increase/improve communications - more frequent email communication regarding division plans or activities that aren't included in Science weekly, SAC minutes, or Division minutes
- 23. Payroll (FY 07+)
  - a. One time a month.
  - b. Set leave entry to assume no leave taken unless specific leave hours are entered.
- 24. Make better use of in-service. Spend less time in meetings and more time on class and room prep. Actually give time to implement the useful information gleaned from speakers and workshops. (FY 07+)
- 25. Standardize texts and lab packets (FY 07+)
- 26. Allocate a portion of the tech fee to each division, then let division decide how best to use (FY 07+).

# **Budget reduction**

#### **Energy savings & Sustainability**

- 1. Budget less for energy and follow all energy management recommendations.
- 2. Turn equipment off when not in use.
- 3. Planting landscapes all over campus that don't require summer water (we do have a summer drought climate)
- 4. Don't budget for leaf blowing in the parking lot.
- 5. Lights in the parking lot turn them off sooner.
- 6. Reduce reliance on paper copies set a limit on printing. This could reduce the M&S budget.
- 7. Reduce funding for printing and staffing of the Community College Moment (perhaps not print a copy for everyone and let people request a hard copy)
- 8. Examine publications/discounts in printing cut as feasible.

## Set priorities to ensure effectiveness of existing technologies and services

- 1. Set our priorities as a college—do we need to continue buying or replacing or do we need to maintain appropriate staffing levels?
- 2. Don't purchase additional enhancements until all current technology is supported.
- 3. Don't replace computers as often, used savings for tech support.
- 4. Re-evaluate/Change Fall in-service and spring conference: don't bring in outside speakers.
- 5. Stop all construction including parking lots.
- 6. Analyze all non-instructional services to see how they add value and save outside contract costs (e.g., campus plumber versus service contract)
- 7. Remove positions that do not add value to learning

## Scheduling – Classes and hours, days, months of operation

- 1. Cut low enrollment sections.
- 2. Close down for summer or drastically reduce services

## **Budget Planning**

1. Do not reduce budgets in departments and programs in ways that reduce the ability to generate profits.

# Redesign administrative structure

- 1. Repurpose management funds to IRAP.
- 2. Administration level cuts should match division level cuts
- 3. Consider a Dean-Lead Faculty structure as opposed to Instructional Managers
- 4. Eliminate VP for technology. Assign leadership and planning role to OISS.
- 5. Eliminate the Professional and Organizational Development management position.
- 6. A representative task force to review administrative personal costs and identify areas that could be more efficient

#### Redesign faculty structure

- 1. early retirement incentives
- 2. more part time instructors because they are cheaper.

#### Redesign OUS System

1. Move state to semester system