

Natural Science Building Renovation Project

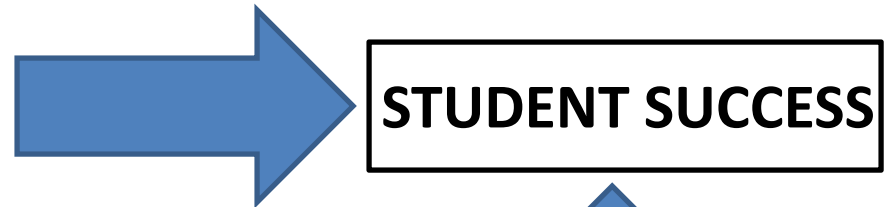
**Team Logistics Meeting
December 19, 2016**

Western Oregon University Strategic Plan *(11/28/16 draft update)*

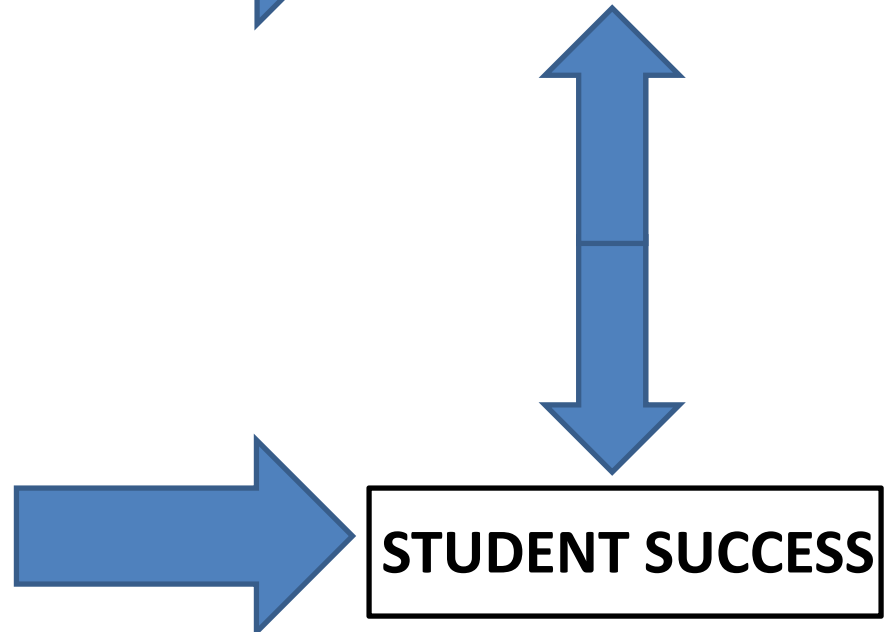
Mission Statement: Western Oregon University creates lasting opportunities for **student success** through transformative education and personalized support in an accessible collaborative community.

Mission – Values – Goals Alignment

| Mission Element | Value |
|--------------------------|---|
| Transformative Education | Excellence |
| Personalized Support | Accessibility Empowerment |
| Collaborative Community | Collaboration Community Diversity and Respect |
| Lasting Opportunities | Accountability Sustainability and Stewardship |



| STRATEGIC GOALS |
|-----------------------------------|
| I. Student Success |
| II. Academic Excellence |
| III. Community Engagement |
| IV. Accountability |
| V. Sustainability and Stewardship |



HECC Higher Education Goals: access, student success, streamlined pathways, degree completion, career connections

Natural Science Building Remodel Project

Goal: to renovate / facility for use by Biology, Geology, Earth & Physical Science

Project Budget: \$6 million (~\$1.5M soft costs + ~\$4.5M construction)

Project Scope:

- Upgrade HVAC equipment and controls;
- Replace the transformer, main distribution panel, and feeders of electrical system;
- Seismically reinforce the structure and equipment to meet current building code;
- Remodel labs, classrooms, and related ancillary space;
- Replace existing plumbing pipe and fixtures throughout the building;
- Remodel all four existing restrooms to make them fully ADA compliant;
- Remodel offices and doorways to correct ADA deficiencies;
- Retrofit lighting with energy efficient fixtures;
- Replace obsolete elevator equipment and controls and refurbish elevator car;
- Abate asbestos material throughout the building; and
- Replace rooftop greenhouse.

NS BUILDING PROJECT LOGISTICS

Existing Natural Science Building
Standard Academic Operations



Pre-Planning and Logistics;
Design and Engineering



Temporary Relocation of
Academic Operations



Construction Phase Temporary
Space Relocation to Vacant College
of Education Building

Natural Science Building
Construction and Renovation



Post-Construction Reoccupation of
Natural Science Building



Return to Standard
Academic Operations

Construction Phase Academic Goals:

- minimize disruption of service to students
- recruit and retain students in science
- maintain or increase graduation rates
- maintain established curriculum & outcomes
- maximize cost effectiveness at all levels

NS BUILDING PROJECT

COMPLICATING FACTORS



STAFFING

- Physical Plant Director retirement / open search
- Retooling of Physical Plant Assistant Director search
- Appointment of Interim Head Skilled Trades Manager
- Construction Manager position open / search pending
- Architect selection process in progress / pending
- Other retirements pending

COMPLEX USE

- Complicated NS Building use patterns: lectures, labs, cross-campus programs
- Extensive equipment, specimen and technology assets
- Integrated curriculum, technology, research and building use
- High-traffic, high-impact building affecting 1000's of student schedules per term
- Greenhouse operations integrated into Biology curriculum

LOGISTICAL DETAILS

- Academic year scheduling conducted 8 months in advance of fall term start
- COE Building currently has limited infrastructure for temporary lab set-up
- No temporary rooms, labs or offices have been delineated or identified (TBD)
- Set-up of temporary labs and technology infrastructure will be significant
- Vacating NS Building will require storage and mobilization costs
- Faculty and Staff overload during academic year, relocation time crunch
- Complicated logistics associated with maintaining student service levels

Natural Science Building Profile and Room Use Fall 2016

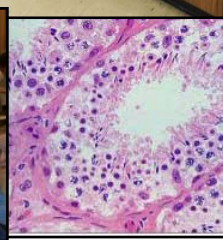
| | | |
|--|----|-------------------|
| No. of Classrooms: | 6 | (4,972 sq. ft.) |
| No. of Labs: | 13 | (12, 588 sq. ft.) |
| No. of Offices: | 33 | (3,654 sq. ft.) |
| Instructional Support Spaces / Storage Areas: | 41 | (8,049 sq. ft.) |
| Greenhouse: | 1 | (951 sq. ft.) |

| | |
|--|--------|
| Lab Seats Per Room: | 16-24 |
| Lecture Seats Per Room: | 26-106 |
| No. of Smartroom Consoles: | 19 |
| No. of Student Lab Computers: | 159 |
| No. of Office/Research Computers: | 51 |

Fall 2016 Building Users: Biology, Chemistry, Criminal Justice, Economics, Earth Science, Honors Program, Mathematics, Physics, Political Science, Social Science, Spanish

| | | |
|--|-------|------------------------------|
| No. Classroom Lecture Sections: | 81 | |
| No. Lab Sections: | 50 | |
| Total Enrolled Seats: | 2,555 | (all programs, all sections) |

Biology NSB Assets: Field Equipment, Plant & Animal Collections, Sea Table and Live Animal Collections, Greenhouse / Plants, Microscopes, Instrumentation, Classroom & Laboratory Equipment, Computer Technology, Faculty Office and Research Labs, Student Research Space...



Earth and Physical Science NSB Assets: Field Equipment, Mineral and Rock Collections, Fossil Collections, Map Library, Microscopes, Instrumentation, Classroom & Laboratory Equipment, Computer Technology, Faculty Office and Research Labs, Student Research Space...



NAVIGATING COMPLEX WATERS

Institutional Threats During Construction:

- service disruption, loss of majors / graduates
- loss of enrollments, low customer satisfaction
- decreased productivity, low employee morale
- self-inflicted barriers to student success
- inflationary construction costs with time
- external political factors and budgetary forces



Construction Phase Academic Goals:

- minimize disruption of service to students
- recruit and retain students in science
- maintain or increase graduation rates
- maintain established curriculum & outcomes
- maximize cost effectiveness at all levels



TIME – PLANNING – TEAMWORK

Patient Prior Planning Promotes Proper Performance

ACCESS – RECRUITMENT – RETENTION - STUDENT SUCCESS – DEGREE COMPLETION

Natural Science Building Renovation Pre-Construction Logistics: Temporary Relocation to COE Building

Interim Biology Facility Needs:

- One BI 100 Lab (w/ water)
- One BI 200 Lab (w/ water)
- Two BI 300-400 Labs (w/ water)
- **One Microbiology Lab (w/ water, autoclave)***
- Linked Greenhouse (w/ water)
- 14 Faculty/staff offices
- Ancillary instrument / prep rooms
- ~2500 sq. ft storage space
- Shared access to three hoods
- Shared access to DI water

Interim EPS Facility Needs:

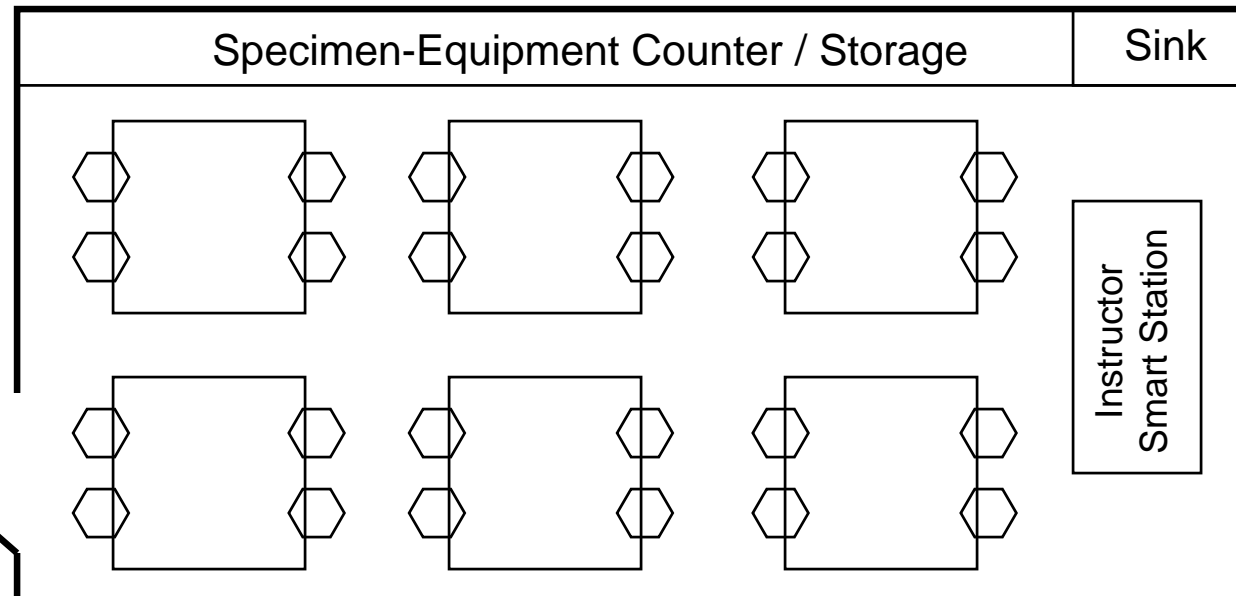
- One ES 100 Lab (w/ water)
- One ES 200 / Upper Division Lab
- One ES 300-400 Lab
- **One GIS Computer Lab#**
- One Physics Lab
- 10 Faculty/staff offices
- Ancillary research / prep rooms
- ~2500 sq. ft storage space

Interim Shared Program Need:

- **One GS Honors / Science Methods Lab (w/ water)***

Standard Laboratory Footprint:

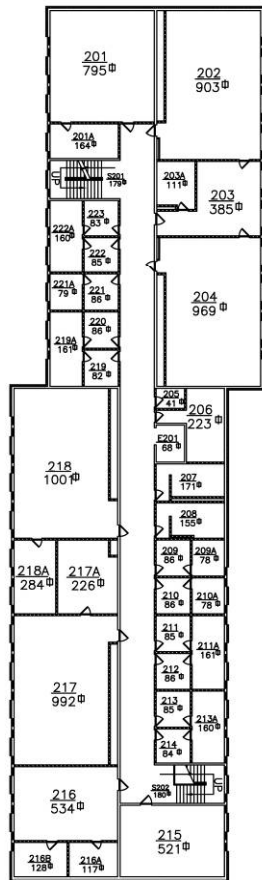
- 24 seats w/ Work Tables
- 12 Computer Stations
- Sink and Water
- Counter Space / Storage
- Smart-Room Technology
- ~1000 sq. ft.
- Electrical at Work Tables



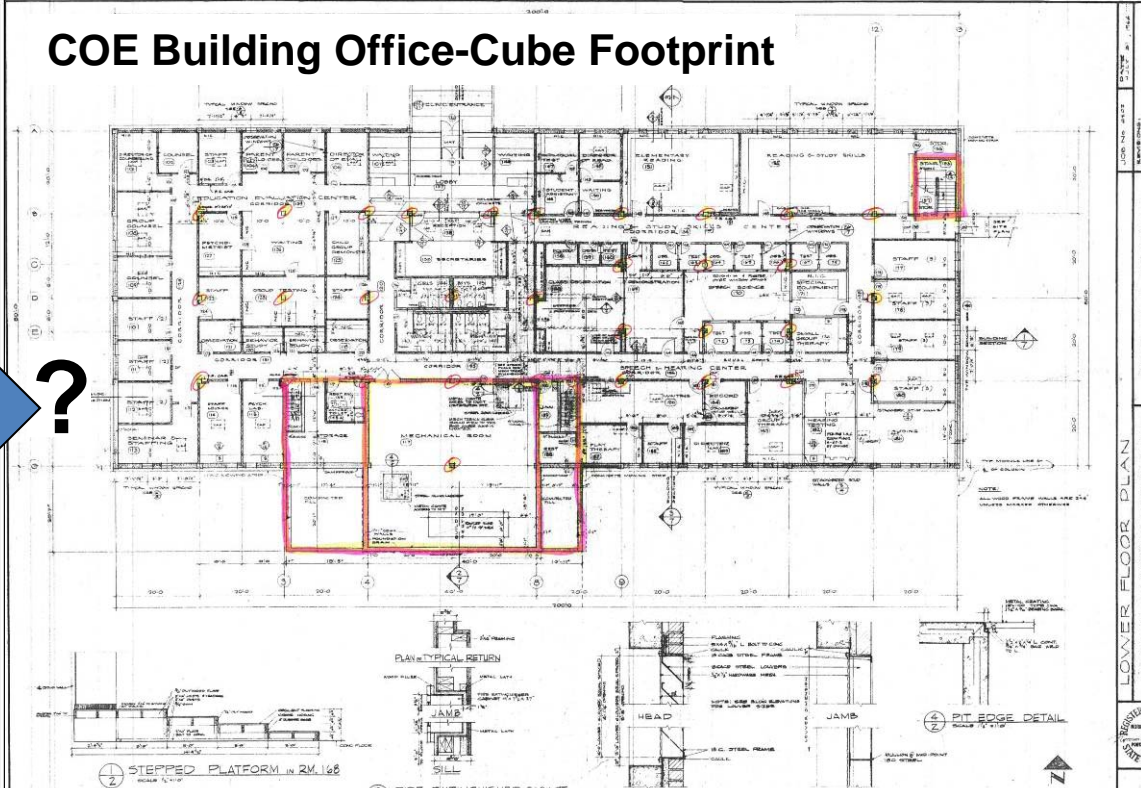
COE Building Design Goal:

Create functional, cost-effective, temporary laboratory facilities to maintain student service levels during Natural Science Building renovation.

NS Building Lab Footprint



COE Building Office-Cube Footprint



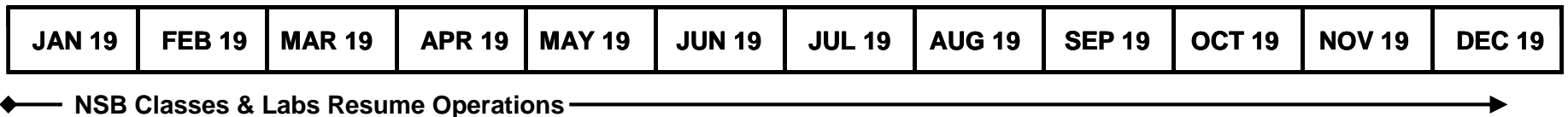
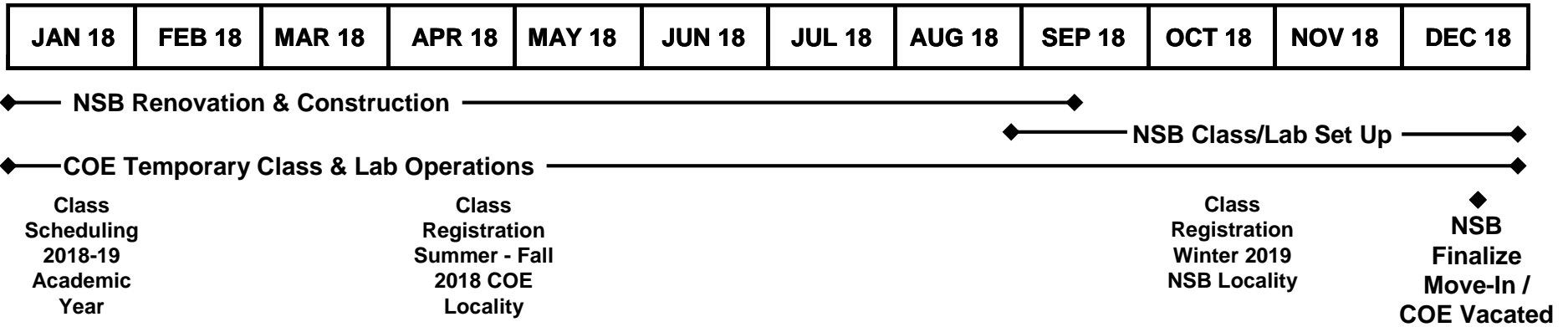
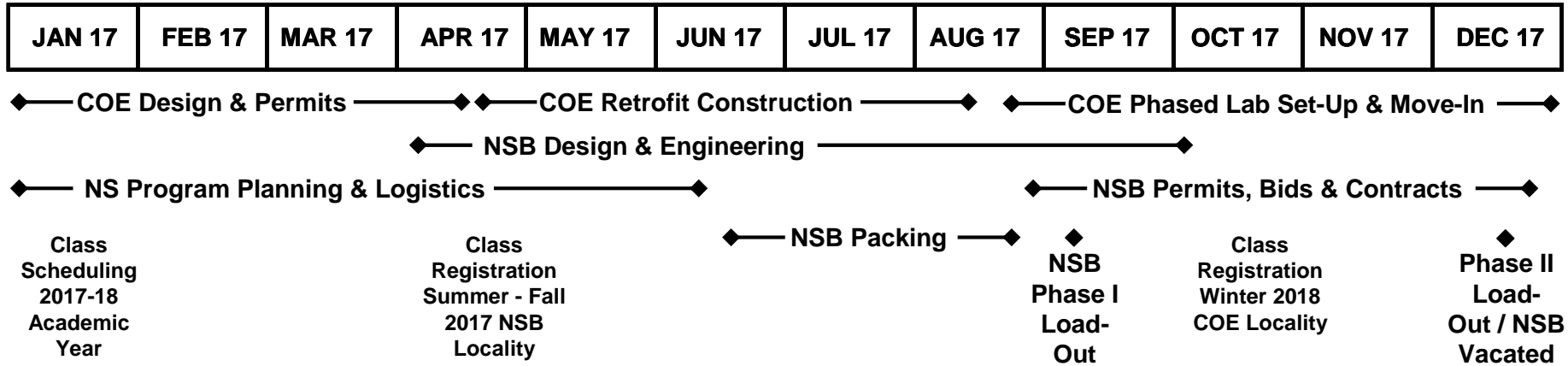
COE Design Problem:

How to create temporary, but functional large-box science labs out of small-box offices and work spaces?



NATURAL SCIENCE
SECOND FLOOR

Revised Timeline to Maximize Probability of Project Success



2017 Existing Operations → 2018 NSB Renovation & Set-up → 2019 Resume NSB Operations