



Special Meeting of the
Oregon Tech Board of Trustees
Via Teleconference
Room 402, Wilsonville Campus
Sunset Room, Klamath Falls Campus
December 15, 2015
1pm – 2:30pm

**Board of Trustees
Agenda
December 15, 2015**

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1. Call to Order/Roll/Declaration of a Quorum <i>Chair Graham</i>	
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**Meeting of the
Oregon Tech Board of Trustees
Sunset Room, Klamath Falls Campus
October 9, 2015
8am – 3pm**

DRAFT MINUTES

Trustees Present:

Chair Lisa Graham
Vice Chair Steve Sliwa
Jeremy Brown
Melissa Ceron

Bill Goloski
Jessica Gomez
Kathy Hill
Chris Maples

Kelley Minty Morris
Dan Peterson
Paul Stewart
Fred Ziari

University Staff and Faculty Present:

Angela Archer, Tech Opportunities Program Coordinator
Sue Cain, Senior Budget and Planning Officer
Robyn Cole, Faculty Senate President
Lita Colligan, AVP Strategic Partnerships
Erin Foley, VP of Student Affairs/Dean of Students
Sandi Hanan, Employment Specialist - Records Manager
Traci Houtz, Associate Director of HR
Kristen Martsters, ASOIT President
Gaylyn Maurer, ISHC Director
Michelle Meyer, Interim VPFA
Laura McKinney, VP Wilsonville
SophiaLyn Nathenson, Assistant Professor Humanities and Social Sciences
Hallie Neupert, Interim Dean ETM
Denise Reid, Assistant Director of Business Affairs
Tracy Ricketts, AVP Development and Alumni Relations
Paul Rowan, AVP ITS
Di Saunders, AVP Communications and Public Affairs
Terri Torres, Associate Professor Mathematics

1. Call to Order/Roll/Declaration of a Quorum

Chair Graham called the meeting to order at 8:10am. The Secretary called roll and a quorum was declared.

2. Opening Comments and Reports

2.1 President's Report and Discussion

President Maples reviewed a PowerPoint presentation (on record) addressing national and Oregon state trends in higher education. He introduced **Angela Archer**, Tech Opportunities Program (TOP) Coordinator, who gave an overview of the program: the TRiO grant, which funds the program, was awarded in July, is over \$1.2M, and expires

August 31, 2020. Trustees suggested TOP students come and meet the Board, Oregon legislators, and HECC members to explain the benefits of the program. **Trustee Ziari** requested that the university look at offering this to more students, including those that do not qualify as low income.

2.2 Legislative Update

AVP Lita Colligan reviewed the handouts in the agenda regarding the legislative session and the investments the university made with the additional \$465,000 allocated from the state. She invited Trustees to attend legislative days in Salem. **Trustee Brown** requested **AVP Colligan** create one page of talking points on topics of interest (an issue brief) for Trustees to use when they meet decision-makers. **Chair Graham** requested the Executive Committee address the talking points at the February meeting.

2.3 Faculty Senate Report

Faculty Senate President, Robyn Cole stated faculty is interested in collaborating with the board. She addressed faculty research, bringing research faculty on board, and comments and concerns heard from faculty regarding research. She stated Oregon Tech does a good job reaching out to corporate interactions and industry partners but feels more work could be done if faculty had additional time. She addressed the avenues of professional development for faculty, faculty's responses to ideas to create incentives for faculty, what is required of faculty in addition to teaching, how faculty see teaching changing, what faculty thinks is the biggest impact for students, the priorities faculty thinks the board should focus on. She stated the Senate is: reviewing the faculty workload and addressing changes to policies or practices; prioritizing concerns that the board might want to know about; discussing campus safety; looking at academic standards for badges and credit for prior learning; revising policies; developing non-tenure track and different tracks; and identifying options for pay measures. She asked the Board to draft and adopt a philosophy statement addressing how employees should be treated and paid. She stated that Faculty Senate asked administration to draft a 5-year plan to bring all faculty salaries up to discipline floors. Administration will look at the comparators; the faculty compensation committee will relook at the comparators. She mentioned the Oregon University Curriculum Incubator, a topic or white paper being circulated through HECC and inter-institutional faculty senate.

Vice-Chair Sliwa observed that in most university environments the Faculty Senate is reactionary. He requested that the Faculty Senate look at things that the senate can do to be anticipatory of the future directions that the University is going and identifying those issues. He stated that President Maples made a list of educational modalities, some of which have challenges related to the conventional way of thinking with faculty roles. He asked faculty senate to review the list and think about which areas can work in the future, rather than reacting to them if they are implemented.

Trustee Brown stated he is impressed with the work of the faculty and appreciates the things they do above and beyond teaching.

2.4 ASOIT Klamath Falls Report

ASOIT Klamath Falls President, Kristen Marsters handed out yellow and green ribbons made by ASOIT this past week to show support of those affected by the UCC

shooting. She stated ASOIT officers were voted on in the spring with only one new officer elected. Big events planned are blood drives once a term; the black out for hunger basketball game and the sale of t-shirts to community members; super club sign-ups (over 50 clubs on campus with potential for more); a bon fire during family weekend; general meetings held with clubs twice a month with the second general meeting now having a forum with a speaker. She explained the recent changes to the ASOIT Council: there previously was one President and two vice presidents at each campus, now there is one President on each campus. The two groups meet twice a month throughout the year to talk about common issues and collaboration. They are interested in keeping open lines of communication with student bodies. The first issue they will address this year is food service on campus and providing the type of food students want.

2.5 Guest

Greg O'Sullivan, Director of the Klamath County Economic Development

Association (KCEDA), explained where he and his board see Klamath County heading, the recent change of reengaging the private sector with a pay-to-play scenario (40 businesses fund almost half of the budget), and that Oregon Tech will be an icon for his marketing program. He reviewed: staffing at KCEDA; intent to focus on the existing business base; impending launch of an aggressive outbound marketing program; desire to work with Oregon Tech to identify ways to make areas of the community more inviting for students, faculty, and staff; how KCEDA can support higher education; the hiring of an independent consultant to identify target markets based on developable property, work force, quality of life, existing base industries; that he would like to tap Oregon Tech's knowledge base and engage faculty and students in research; and that he would like Oregon Tech to be part of his sales team. **Vice-Chair Sliwa** agreed that the key to economic development is the creation of partnerships between public, private and education. **Trustee Ceron** stated that communication between KCEDA and the student body is important. **Mr. O'Sullivan** suggested that a student might be able to sit on the KCEDA board.

Break (10:15am - 10:30am)

2.6 Academic Quality and Student Success Committee Report

Trustee Brown stated the majority of the meeting was spent reviewing presentations by VP/Dean Foley on Student Services and student success, and Dean Maupin on the Academic Master Plan. Trustees will also be sent information on required Title IX training.

2.7 Finance and Facilities Committee Report

Vice-Chair Sliwa stated the committee heard reports on the current debt and bonding status through OUS, discussed options to continue those, and addressed the process for the University to establish its own credit rating and obtain its own bonding. The committee received a brief report on investment performance; were updated on the audit process and the RFP for the Facilities Master Plan; discussed approaching university risk from an integrated risk management position; asked for a list of university wide risk issues and status of for the February Committee meeting; and agreed that a meeting in January will be needed.

2.8 Executive Committee Report

Chair Graham stated the Committee recommended the Board approve a policy regarding at-large board position recommendations to the Governor, discussed marketing efforts, and received an update on HECC and the outcome based funding model.

3. Consent Agenda

- 3.1 Approve Minutes of the July 9-10, 2015 Meeting
- 3.2 Approve Minutes of the September 10-11, 2015 Retreat
- 3.3 Adopt Policy on Recommending Candidates for At-Large Board Positions

Trustee Stewart moved to approve the consent agenda. **Trustee Minty Morris** seconded the motion. With all Trustees present voting aye, the motion passed unanimously.

4. Action Items

- 4.1 Approve Resolution Acknowledging Institutional Responsibilities Under the Program Participation Agreement Related to Title IV Financial Assistance Programs

Tracey Lehman, Director of Financial Aid, explained the need for the Resolution: anytime there is a change in governance the Department of Education requires it to be reported and to retain federal assistance the governing body must formally acknowledge its responsibilities. She stated that the documents are not new but they do include updates such as referencing HECC rather than OUS and referencing the university board.

Trustee Minty Morris moved to approve the Resolution acknowledging institutional responsibilities under the program participation agreement related to Title IV financial assistance programs. **Trustee Gomez** seconded the motion. With all Trustees present voting aye, the motion passed unanimously.

- 4.2 Adopt Fiscal Year 2015-16 Budget

Vice-Chair Sliwa stated the University recently improved its financial tracking and reporting, and he identified some of the challenges faced putting together the budget. **Interim VP Meyer** reviewed a PowerPoint presentation (on record) stating this is the first time the university has had an all-fund operating budget. **Chair Graham** stated the legislature suggested we break out and track costs associated with the staff positions hired to fulfill the support services for students at risk. **Interim VP Meyer** walked through the proposed budget; there was discussion regarding the student fund balance, the shift from a reactionary to a proactive approach to budgeting, and the need to amend the budget calendar to start in early winter rather than spring. A monthly E&G operating statement will be sent to the F&F committee and Chair Graham. **Vice-Chair Sliwa** stated that the issue the committee wrestled with was that expenses increased more than revenues. He outlined the Committee's proposed amendments to the Resolution in Section 2 and the addition of Section 3 (handout on record). The intent is that the next time a budget comes before the board it will be balanced. F&F Committee member's made comment regarding the budget: this year is one of transition, there is a need to become less reliant on state funding, and this trend cannot continue. **Trustee Minty Morris** requested breaking out

total reserves and to review it as a metric. **Trustee Brown** thanked Interim VP Meyer and her staff for the work they accomplished putting this together and stated the budget should not be balanced at the detriment of the university's mission. Discussion regarding capacity of faculty and staff to accommodate additional students, required changes if enrollment increased significantly, investment deficits versus deficits, looking at cost per FTE by program and determining how costs to the university based on year of study (freshman, sophomore, etc.).

Vice-Chair Sliwa moved to approve the Resolution adopting the Fiscal Year 2015-16 Budget as presented from the Finance and Facilities Committee. **Trustee Stewart** seconded the motion. With all Trustees present voting aye, the motion passed unanimously.

Lunch and Adjournment to Executive Session – ORS 192.660(2)(a)(i) – Employment of Public Officers, Employees, and Agents; and Review and Evaluate Performance of Public Officers and Employees (12:15pm-1:50pm)

5. Discussion Items

5.1 Dashboard Presentation

President Maples led a discussion regarding the contents of a dashboard. Consensus that the dashboard should address HECC issues/metrics that need to be tracked for annual reporting. **President Maples** will create a dashboard for review at the February meeting.

Trustee Stewart exited the meeting at 2:00pm.

5.2 Internal Audit

Interim VP Meyer gave an overview of how auditing was handled under OUS. She stated OUS provided \$100,000 to Oregon Tech to cover the internal audit function. She outlined options: creation of an internal audit department staffed by Oregon Tech staff or outsourcing to another firm or firms depending on the subject matter which would report to the Board committee. Discussion regarding pros and cons of each option. She explained the difference between a financial audit and a complete internal audit and stated Oregon Tech has a fraud, waste, and abuse hotline funded by OUS since July 1, 2015. **Interim VP Meyer** will draft a Request for Proposal for the internal auditing function to be sent to outside firms, she will work with the Chair of the F&F Committee and **President Maples** on the reporting structure, and will contact other Oregon universities to identify their preferred option.

6. Roundtable (2:20pm)

Vice-Chair Sliwa recommended the Board renew the Values Statement at least once a year and suggested it occur at the February board meeting.

Trustee Minty-Morris would like to hear the outcome of the brainstorming session held at the Board retreat potentially at the February meeting, either in the President's report or with the goals.

Trustee Ziari would like to continue involving the community, faculty, and staff in the meetings. **Trustee Brown** suggested inviting a faculty member or student to present the project they have been working on, to the Board. **Chair Graham** requested additional time at the faculty/staff/student meet and greet sessions as more people attend.

Chair Graham asked that a list be kept of Trustees and the actions they take on behalf of the university; for example, who has written an article, conducted an interview, visited the legislature, etc.

Trustee Goloski requested an update on winter term numbers.

Trustee Brown requested a copy of the Clery Act and campus safety reports. **VP/Dean Foley** stated the information is on the website but can be disseminated to the board; she gave an overview of Campus Safety. **Chair Graham** requested campus safety and an overview of the emergency response plan be on the February agenda.

7. Public Comment

None

8. Adjournment

Trustee Minty Morris moved to adjourn the meeting. Trustee Ziari seconded the motion. With all Trustees present voting aye, the motion passed unanimously. Meeting adjourned at 3:00pm.

Respectfully submitted,



Sandra Fox,
Board Secretary

ACTION ITEM

Agenda Item No. 3.1

Recommendation to HECC

Summary

Oregon Tech staff are proposing to teach the Bachelor of Science Degree Program in Mechanical Engineering at the Wilsonville campus. The Higher Education Coordinating Commission (HECC) must approve the delivery of the existing program to a new location. A recommendation from the Oregon Tech Board of Trustees is required to place the proposal on the Commission's agenda for action.

Background

The Bachelor of Science Degree Program in Mechanical Engineering (BSME) at Oregon Tech is taught at the Klamath Falls campus and at Boeing. The proposal is to offer the program at the Wilsonville campus. The program provides graduates the skills and knowledge for successful careers in mechanical engineering.

The Provost Council heard the proposal and recommended HECC approve the request. This request is brought before the Board at a special meeting so the proposal can be put on HECC's agenda for the January 2016 meeting.

Recommendation

Move to recommend to the Higher Education Coordinating Commission approval to teach the Bachelor of Science Degree program in Mechanical Engineering at the Oregon Tech Wilsonville campus.

Attachments

Proposal for delivery of an existing program to a new location.



Oregon
University
System

Proposal for Delivery of an Existing Program to a New Location

1. Program Description

a. Program title, level, and delivery sites.

The Bachelor of Science Degree Program in Mechanical Engineering (BSME) at the Oregon Institute of Technology is currently taught at the Klamath Falls campus and is also being taught under contract to Boeing in the Puget Sound area, Washington. It is proposed to offer this ABET EAC-accredited program at the Oregon Tech Wilsonville campus. The BSME curriculum delivered at Wilsonville will be the same as that offered in Klamath Falls, and the program will be accredited through ABET by extension.

b. Department and school/college that would offer the program. Include the name of the institution program coordinator.

The BSME program will be offered by the Department of Manufacturing and Mechanical Engineering and Technology (MMET), which is in the College of Engineering, Technology and Management (ETM) at the Oregon Institute of Technology.

The institutional Program Director is Assistant Professor Sean Sloan, MMET Department.

c. Briefly describe the academic program. List all course titles, including number of credits.

The Bachelor of Science in Mechanical Engineering at the Oregon Institute of Technology is an applied engineering program that provides graduates the skills and knowledge for successful careers in mechanical engineering. The department offers the possibility of earning concurrent degrees.

See Appendix for a list of course titles and credits.

d. Indicate in what ways the proposed program at the new location(s) will differ from the on campus program.

The BSME program proposed for Wilsonville will be substantially equivalent to the program offered in Klamath Falls. The choice of electives and senior project topics may be different for the two locations. Due to the substantially equivalency requirements for ABET accreditation, both locations will deliver the same curriculum.

e. List any special requirements or prerequisites for admission to the program at the new location(s).

There are no additional requirements for admission beyond those already in place for the existing degree program.

f. Is there an accrediting agency or professional society that has established standards for this program? If so, is the program currently accredited? If accredited, what steps would be needed to accredit the program at the proposed new location(s)?

The BSME degree offered in Klamath Falls is accredited by ABET EAC. In order to accredit the BSME program a document similar to an ABET Self-Study will be prepared and submitted. BSME program offered under contract to Boeing was also granted ABET-EAC accreditation in the Spring of 2013. ABET Evaluators will visit 3 locations, Klamath Falls, Seattle and Wilsonville at the next general program review.

Demand

a. List any similar programs offered at the proposed or nearby location(s).

Portland State University offers a BS in Mechanical Engineering but currently does not offer the complete degree on an evening/night/weekend schedule. By partnering, Oregon Tech and PSU would be able to deliver the entire BSME program (including all the math, science, general education, and major specific courses) on the evening/night/weekend.

The Oregon Institute of Technology currently offers at the Wilsonville campus an ABET ETAC-accredited Bachelor of Science in Mechanical Engineering Technology (BSMET) degree program. While the BSMET program is similar to the BSME program, there are a few significant differences. The BSMET program is less math-intensive than the BSME program and graduates often pursue different career paths. Another significant difference is that a number of States now require an ABET EAC-accredited degree (the BSME is; the BSMET is not) to become a licensed Professional Engineer.

b. Provide evidence of need for the program at the new location(s).

The evidence of need for the new program at the new location includes:

- 1) A letter from the OUS Assistant Vice Chancellor for Industry Partnerships documenting the need and encouraging PSU and Oregon Tech to collaborate to satisfy this student and industry need.
- 2) A formal request from the MMET Department Industry Advisory Board representing 130 companies hiring BSME graduates. See the attached Letter of Support.
- 3) Results from the 2013 Employers Survey and Alumni Survey. The results indicate that 90.9% of the employers strongly agree or agree that the BSME program should be offered at the Wilsonville Campus. Over 70.3% of the alumni responses strongly agree or agree that the BSME program should be offered at the Wilsonville Campus.
- 4) Requests from the BS students in Renewable Energy Engineering at the Wilsonville Campus interested in obtaining a dual major with mechanical engineering (REE/ME degree).
- 5) Requests from the currently enrolled MET students at the Wilsonville campus which would prefer to obtain a BSME degree instead of a BSMET.
- 6) Service to the South-Metro/Salem student population desiring to pursue a BSME degree at Oregon Tech.
- 7) Professional Licensure (Professional Engineer) requirements in a number of States that now require graduating from an ABET EAC program (such as the BSME) to be eligible for licensure.

c. Estimate enrollment and number of graduates over the next five years. Will any enrollment limitation be imposed? If so, how will those to be enrolled be selected?

The program is expected to grow to 80 students over the next 6 years and produce about 20 BSME graduates per year. No enrollment limitations are planned at this stage.

3. Personnel

- a. **List the names and qualifications of faculty (regular and adjunct) who will be involved in delivering the program to the proposed location(s). Will new faculty be needed?**

Below is a listing of faculty members and qualifications. No additional faculty will be needed to launch the program at the Wilsonville Campus. A significant number of ME courses are already offered as service courses to the BSREE program offered at the Wilsonville Campus. Over 80% of the courses comprising the BSME degree are already offered at the Wilsonville Campus. Additionally, since the BSME program is similar to the existing BSMET that is currently taught in Wilsonville, it is expected that initially the existing MMET faculty (regular and adjunct) will be able to teach the new program; this is what was done at the Klamath Falls campus when the BSME degree was added. As the program grows, more faculty will be added as necessary.

Tenure/Tenure-Track Faculty at the Wilsonville Campus who will be involved in delivering the program:

- Lawrence Wolf, PhD, PE, Fellow ASME
- Wangping Sun, PhD
- Hope Corsair, PhD
- Teshome Jiru, PhD
- New Faculty Search
- Adjunct Faculty with graduate degrees and professional experience in mechanical engineering.

- b. **Estimate the number and type of support staff needed to provide the program at the new location(s).**

No additional support staff will be needed. The support staff that is currently in place will be adequate to support the new BSME program, which includes a full-time laboratory technician for the Wilsonville campus and student services including tutoring, proctoring, career services, registrar, and advising services.

4. Other Resources

- a. **Describe facilities (e.g., buildings, labs, equipment) necessary to offer the program at the new location(s).**

No additional buildings, labs or equipment are necessary to offer the program at the new location. Since the M&MET Department and Department of Renewable Energy and

Electrical Engineering are already offering several engineering and technology degrees (Bachelor Science in Manufacturing Engineering Technology, Mechanical Engineering Technology, Renewable Energy Engineering and Electrical Engineering), there is a significant overlap in the lab requirements and no significant additional resources needed. There is the list of resources available at the Wilsonville campus: Electrical Power Lab, Instrumentation and Control Lab, Heat Transfer lab, Strength of Materials Lab, CNC Lab, Robotics Lab and Vibration Lab, HVAC Lab and Solid Modeling Lab. With moderate investment, a Fluid Power Lab will be built.

b. Indicate how library needs will be met.

The OIT Library facilities have adequate resources for BSME at Klamath Falls campus and Wilsonville campus. Students and faculty members have access to the Learning Resource Center (LRC) and library staff on the Klamath Falls campus for research support. In Wilsonville, this service is provided by the on-site librarian, Dawn Lowe-Wincentsen. Students have access to inter-library loans for research projects as well as archival access to most professional technical and scientific journals. The interlibrary loan process adds a great deal of flexibility and the library staff go out of their way to help students identify and obtain resources. The OIT Library's holdings in the broad subject category of energy engineering include 214 print journals and 231 electronic journals. In recent years, the library has purchased more journals and books electronically in response to cost savings for electronic titles over printed editions and cost savings through consortia buying opportunities. OIT's collections cover all broad areas of mechanical engineering, including mechanical design, thermal/fluids/heat transfer, and mechatronics. Holdings in related disciplines also support the mechanical engineering curriculum. The OIT Library subscribes to a number of engineering-related electronic databases. Some of these databases provide electronic access to aggregated citations and full text articles from engineering journals, while others provide electronic access to data. The library also purchases electronic access to other journal packages directly from publishers. These electronic resources provide access to many publications the Library does not own in print. The library has approximately 606 print monograph and 25 print journal title holdings in the broad subject category of energy engineering. The OIT Library is a member of the Summit Cascade Alliance, a consortium of 34 academic libraries in Oregon and Washington. The consortium provides a union catalog and borrowing system of more than 22 million titles, enabling OIT students, staff, and faculty quick access to materials at all institutions at no personal cost. The consortium also leverages its buying power to provide access to electronic resources far in excess of what individual libraries could acquire on their own. The periodical, journals, and magazines kept on shelves provide a diverse perspective of the various electrical engineering and energy industries. Subscriptions are a mix of academic journals and industry technical magazines (listed below). Because most of the students will go on to engineering careers rather than research, emphasis is given to the latter.

c. Indicate how students at the new location(s) will receive student services (e.g., academic advising, financial aid assistance, course registration, access to book/text purchases).

BSME students will have the access to the same student services as other students enrolled in the academic programs offered at the Wilsonville campus. See www.oit.edu/wilsonville for details.

5. Alternative Delivery Methods/Formats

- a. **Are alternative delivery methods being used (e.g., distance learning or technology-enhanced)? Please describe.**

No alternative delivery methods are being used.

- b. **Will this program be delivered in an alternative format (e.g., weekend, evening, on-site)? Please describe.**

All upper division courses will be available in the evenings and weekend. Some of the courses will be available online through Distance Education, but not required.

6. Budgetary Impact

- a. **Indicate the estimated cost of the program for the first four years of its operation. (Use the *Budget Outline* form, accessible from the Provosts' Council website.)**

Since the classrooms, labs, equipment, faculty, adjunct faculty and support staff are already available at the Wilsonville campus, no budgetary impact is expected. The program will be financed through existing resources. Additional resources will be sought to continuously improve the existing labs.

- b. **If grant funds are required to launch the program, what does the institution propose to do with the program upon termination of the grant?**

Grant funds are not required to launch the program.

- c. **Will the allocation of going-level budget funds in support of the program have an adverse impact on any other institutional program, including the on-campus program? If so, in what ways?**

No adverse impacts on any other institutional programs are expected. The Klamath Falls campus and the Wilsonville campus will serve a distinctly different population base. The BSME program offered at the Boeing Company is only available to the Boeing employees.

- d. **If the program will be financed from existing resources, specifically state:**

- i. **What the budgetary unit will be doing as a result of the new program that is not now done, in terms of additional activities.**

Since many core and electives courses are already offered at the Wilsonville campus to support the BSREE, BSMET and BSMFG programs, there will be no substantial additional activities required to modify and offer the courses to support BSME program at Wilsonville campus.

- ii. **What these new activities will cost and whether financed or staffed by shifting of assignments within the budgetary unit or reallocation of resources within the institution. State which resources will be moved and how this will affect those programs losing resources.**

Not applicable.

Appendix: BSME Curriculum

Note: Over 85% of the courses required for the BSME degree are already offered at the Wilsonville campus to support the BSREE, BSMET, and BSMFG degrees currently offered.

Degree Requirements

In the curriculum listings appear several courses titled "MECH Elective." MECH electives allow the student to select and pursue specific career objectives within the mechanical engineering field. MECH electives are upper-division MECH courses, not specifically required for graduation.

Students from other institutions should refer to the sections of this catalog titled "Transfer Students" and "Admission to Baccalaureate Programs."

The Bachelor of Science in Mechanical Engineering requires 192 credit hours as prescribed in the following curriculum outline.

Bachelor of Science in Mechanical Engineering Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year		Fall	Junior Year		Winter
CHE 201	General Chemistry	3	ENGR 212	Engineering Mechanics: Dynamics	3
CHE 204	General Chemistry Laboratory	1	ENGR 355	Thermodynamics	3
MET 111	Orientation I	2	MECH 315	Machine Design I	3
WRI 121	English Composition	3	MECH 360	Materials II	3
	Humanities/Social Science elective*	3	MET 326	Electric Power Systems	3
Total		12	SPE 321	Small Group and Team Communication	3
			Total		18
Freshman Year		Winter	Junior Year		Spring
CHE 202	General Chemistry	3	HUM 125	Introduction to Technology, Society and Values	3
CHE 205	General Chemistry Laboratory	1	MATH 451	Numerical Methods I	4
MET 112	Orientation II	2	MECH 313	Thermodynamics II	3
MFG 103	Introductory Welding Processes	3	MECH 316	Machine Design II	3
WRI 122	Argumentative Writing	3		MECH Elective	3
Total		12	Total		16
Freshman Year		Spring	Senior Year		Fall
MATH 251	Differential Calculus	4	MECH 323	Heat Transfer I	3
MFG 120	Manufacturing Processes I	4	MECH 351	Finite Element Analysis	3
MET 160	Materials I	3	MECH 490	Senior Projects I	3
MET 241	CAD for Mechanical Design I	2	WRI 327	Advanced Technical Writing	3
SPE 111	Public Speaking	3		MECH elective	3
Total		16		Humanities/Social Science elective*	3
			Total		18
Sophomore Year		Fall	Senior Year		Winter
MATH 252	Integral Calculus	4	MECH 417	Fluid Mechanics II	3
MET 242	CAD for Mechanical Design II	2	MECH 437	Heat Transfer II	2
PHY 221	General Physics with Calculus	4	MECH 480	Vibrations	3
WRI 227	Technical Report Writing	3	MECH 491	Senior Projects II	3
	Economics elective	3	PHIL 331	Ethics in the Professions	3
Total		16		Humanities/Social Science elective*	3
Sophomore Year		Winter	Total		17
ENGR 211	Engineering Mechanics: Statics	4	Senior Year		Spring
MATH 254N	Vector Calculus I	4	ENGR 485	Fundamentals of Engineering Exam	1
MATH 361	Statistical Methods I		MGT 345	Engineering Economy	3
or			MECH 436	Applied Control Systems	3
MATH 465	Mathematical Statistics	4	MECH 492	Senior Projects III	3
PHY 222	General Physics with Calculus	4		MECH elective	3
Total		16		Humanities/Social Science elective*	3
Sophomore Year		Spring	Total		16
ENGR 266	Computer Programming for Engineers	3	Total Credits Required for B.S. in Mechanical Engineering		192
ENGR 213	Engineering Mechanics: Strength of Materials	4	* In addition to HUM 125, PHIL 331 and the Economics elective, students must take 3 credits of Humanities and 9 credits of Social Science. Activity or performing based Humanities courses are not accepted.		
ENGR 236	Fundamentals of Electric Circuits	3			
MATH 321	Applied Differential Equations I	4			
PHY 223	General Physics with Calculus	4			
Total		18			
Junior Year		Fall			
MATH 341	Linear Algebra I	4			
MFG 314	Geometric Dimensioning and Tolerancing	3			
MECH 318	Fluid Mechanics I	4			
MECH 363	Instrumentation	3			
MET 375	Solid Modeling	3			
Total		17			

ACTION ITEM

Agenda Item No. 3.2

Request for Approval of the Capital Budget of \$2,019,277 to Continue the Design and Construction of the Soccer Field Project

Summary

A project to improve athletic facilities for track and soccer was put on hold last spring due to bid amounts far exceeding the available budget. Oregon Tech staff recommends to continue with the previously approved project by scaling back the scope of work to focus on the number one goal which is to begin playing intercollegiate soccer on campus fall 2016. Board approval is required by mid-December 2015 to meet the construction timeline necessary to complete this project by early August 2016.

Background

History

The Oregon Tech Athletics Department has had a long standing goal and desire to improve facilities. However, overall very little improvements have been done due to the lack of funds and the inability to spend state funds on athletics. With aging facilities or sports facilities located off-campus, Oregon Tech is faced with the challenge of recruiting student athletes when it is compared to other public universities.

The Project

The original project's primary goal was to improve athletic facilities for both track and soccer by moving soccer to campus from the Steen Sports Complex and renovating the track. The new scope focuses on two phases: 1) designing and constructing an NCAA specification 75 yd x 120yd regulation synthetic turf soccer field with specification 20' perimeter and infrastructure to support the installation of lights, estimated to cost \$1,880,112, and 2) the installation of lights, estimated to cost \$325,000. Phase 2 is not proposed as part of this budget. The field will be designed to NCAA specifications as NAIA follows these standards. The synthetic field is proposed over conventional turf as it holds up to the heavy practice and game schedules of Oregon Tech's two soccer teams, and is more efficient to maintain through reduction of on-going maintenance costs and water usage. The average expected lifespan of the synthetic turf is eight years but varies depending on the type and duration of use. The approximate cost to replace the synthetic turf is \$500,000.

There are many items on the list of coaching requests (attached) that simply cannot be provided as part of this project and are not included in the recommended project budget presented. Some of these are lower dollar items and perhaps the athletic programs can work on fundraising to facilitate them. Examples of these items are: covered team benches, improved scoreboard, and portable bleachers.

Site Selection

Two sites on campus were considered for the construction of the soccer field: the recreation field on the southwest corner of campus typically referred to as Purvine Field, and the land located northwest of campus and west of the solar field. At this time the Purvine Field site will involve significantly less earth movement resulting in lower development costs, and it provides immediate infrastructure for parking, but also carries the negative of student traffic patterns across the field from the parking lot. The field is currently used by club rugby and intramural softball, as well as for various events such as last year's music fest. Intramural softball may still be accommodated on the new field using a portable back stop and rubber bases. Rugby may choose to relocate as the proposed field is smaller than required for rugby. Other events and sports which are compatible with the synthetic turf may also use the field. It is possible that revenue could be generated by charging for use of the field.

The selection of the Purvine Field site fits with the general campus historical concept in creating an internal campus park like setting with the fountain and aspen grove, surrounded by buildings with parking and recreational facilities located around the perimeter. The site is visible to people arriving on campus which is beneficial when presenting the campus to student recruits.

Funding and Budget

In February of 2014 the now former Oregon University System (OUS) made available to the universities excess XIF bond funds that had already been approved by the legislature for capital rehabilitation projects. The bonds were sold on June 3, 2014 and on June 4, 2014. Oregon Tech received a total of \$2,050,000 with \$1.85 million allocated to the track and soccer project, and two \$100,000 allocations for certain other campus projects, of which \$30,723 was spent. The funds remaining from these two projects can be used for the soccer project.

In July 2014, with project approval from OUS, a Request for Quotes (RFQ) process was conducted to retain an architect and engineer firm to design the track and field project. A contract was signed and an approximate total of \$139,164 was paid to the design consultant and other vendors from the bond funds. When bids were returned for the construction portion of the project the lowest exceeded the available bond funds of \$1.95 million by approximately \$1.5 million. The project scope has since changed significantly to stay within the available funds and a second phase is identified for completion when additional funds become available.

The debt service payments, estimated to total \$487,000 over 20 years (first year estimated to be \$48,000 and 19 years estimated at \$131,000 each) will come from Athletics operational budget using a combination of Lottery, previously collected student Incidental Fees, and other funds (Oregon Tech Development Foundation, sales, etc.). These payments are already incorporated in the Fiscal Year 2016 budget. The current Athletics budget also includes rental expenses of the Steen Sports Park field at an approximate cost of \$13,000 per year. These funds in subsequent fiscal years can be redirected toward debt service, improvements, maintenance, and replacement reserve.

Current project estimates show that available funding will not cover the installation of lights. Oregon Tech staff have planned lighting infrastructure as part of the base design in Phase 1. A second phase is proposed to facilitate the addition of lights. Phase 2 funding has not been identified at this time.

Timeline

The schedule for completion by August, 2016 is aggressive:

Design & Engineering Contracting (emergency declared)	12-16-15
Design & Engineering (about 10 weeks)	
Schematic Design – Design Development (4)	1-13-15
95% Construction Documents (4)	2-10-16
100% Bid/Permit Documents (2)	2-24-16
Bid Phase / Bid Opening / RFP Selection (6 weeks)	4-6-16
Contract Execution / Notice to Proceed (6 weeks)	5-18-16
Construction Phase (3 mo.) / Completion (12 weeks)	8-10-16

While staff acknowledges that the newly established Board of Trustees is in the process of identifying priorities and it is possible that this project might not rank high on the list, the Soccer Project was previously approved by OUS and project funds have been provided. Staff proposes that it is in the best interest of Oregon Tech to construct a synthetic soccer field on campus to follow through with the intention of the bond issue, help complete the overall campus design, bring the sport back to campus offering students a truer campus experience, decrease maintenance costs and water usage, and provide revenue of approximately \$10,000 per year by charging for use of the field and/or offering camps similar to basketball. The land is owned, financing through XIF bonds is in place, and repayment for the debt service is incorporated into the operating budget.

Board Approval Required

The soccer project was previously approved as a portion of a larger project, by OUS and bonds issued. However, due to budget issues the project was not started on time and for bond compliance goods and services have to be received and the project in service by April 2017. Subsequent to project approval and bond issuance, the dissolution of OUS occurred and Oregon Tech's Board of Trustees took over governance as of July 1, 2015. To abide by the recently adopted Board Policy on Delegation, staff is requesting board authorization. Specifically, Section 1.6.4 of the Board Policy states that the Board retains sole authority for the approval of a capital project budget that is anticipated to exceed \$1 million. Section 1.6.8 of the same policy states the Board retains sole authority for the approval of the execution of any other instruments, including but not limited to instruments related to the acquisition, disposal or provision of good and services, where the anticipated cost or value to the University exceeds \$1 million.

Staff Recommendation

Move to approve the capital budget of \$2,019,277 to continue the design and construction of Phase I of the soccer field project, including all funds spent to date, and authorize the VP of Finance and Administration, or designee, to execute contracts and project related instruments to complete the project.

Attachments

Initial Project Design Requests (coaches wish list)
Conceptual Site Plan

Initial Project Design Requests

Phase I – bond funds

- NCAA minimum of 75 yards in width by 120 yards in length artificial turf soccer pitch not to exceed 1% crown.
 - Highly preferred for a zero to ½% crown
 - Only striped for collegiate soccer to include coach and team area, photographer's line and spectator lines
- Artificial turf to extend 20' beyond the touch/goal lines per NCAA specifications
- Lighting infrastructure

Phase II – no funds identified

- Lights that meet a minimum of 125 maintained vertical foot candles
 - Option to control lighting remotely
 - Option to reduce foot candles for practice/post game clean-up.
 - Option for 120 volt outlet on each light pole

Future Projects – no funds identified

- Power Outlet located at the half field mark and ~10' back for scorekeeping/stats.
Note: The exact location can be determined later in the project when site and orientation decisions have been made.
- Soccer barrier netting behind each goal line
 - Preference for each end zone to have a 21' barrier net running the entire width of the field (Goal Line)
 - Use of four standard 65'w x 21'h net systems with 1 ¾" netting running ~15' beyond touchlines on each side is preferred.**Note:** BSN page 205, \$1,999/unit (8 units)
- Enclose the facility in an 8' chain link fence (Highly desirable to protect field)
 - Prefer a black vinyl fence
 - Lockable gates for access at each corner and one gate large enough for goals and maintenance equipment to access
- Appropriate equipment to maintain the turf
- Conduit and cable for public address system (locations of run TBD)
 - Prefer Technomad IPA3 Public Address System**Note:** Placement of speakers etc. cannot be finalized until site and layout is determined
- Run Power and install I-Beams to mount scoreboard if not using the existing scoreboard location and power.
 - Use of existing Nevco Scoreboard System converted to wireless and possibly relocate is option.
- Covered Benches for both teams (KwikGoal 6 ½'hx24'wx5'd with wheel kit)
Note: BSN page 204, \$11,800/unit (2 units)
- Turf Cooling system
 - options for manual

- automatic operation
- Infrastructure Options
 - Look at a building option similar to Steen?
 - Restrooms: If use of portables is determined a level and solid location accessible by truck is required
 - Concessions
 - Scorers area, Film option
 - Storage area for equipment
 - Area to possibly double as team space during inclement weather option

Conceptual Site Plan

