

# **B.S. Health Care Management – Radiologic Science Option**

## **Oregon Tech Assessment Report**

### **2019-20**

#### **Program Description and History**

The Health Care Management program evolved from the Allied Health Management program and was first offered at Oregon Tech in 2013-2014. The degree offers three options, the Administration Option is offered on the Klamath Falls campus and online, the Clinical Option is offered in Klamath Falls and online, while the Radiologic Science Management Option is offered online. The Radiologic Science Management Option caters to those students registered through the ARRT, providing those students with a robust business foundation to complement their healthcare skillset.

#### **Program Highlights**

##### **Program Enrollment, Graduation and Employment Rates**

Total enrollment across all campuses is approximately 12 students; all 12 students are online. The program graduated 1 student for 2019. The three-year annual starting salaries averaged \$58,000. The program has a 93% success rate (within six months of graduation students are employed or in graduate school). It should be noted that the majority of students in this major are working in the field as they complete their degree.

##### **Industry Relationships**

Industry relationships for the Healthcare Management degree program in the 2019-20 assessment period increased in both depth and breadth. Many of the graduates in this degree are working in the field and are looking to move into a management position. Other students translated their senior project into job offers after graduation. The growing list of industry partners that have demonstrated interest in Healthcare Management students and graduating seniors (Renown Health, Synergy Medical Systems, Bellevue Healthcare, Washington State, Providence Health & Services, Sky Lakes Medical Center, Pacific Woman's Center, Columbia Memorial Hospital, Idaho Health Data Exchange, Lucile Packard Children's Hospital, Inland Imaging to name a few) represents tremendous potential for students to engage with industry now and in the future.

##### **Student Learning Experiences**

Of the many hands-on learning opportunities afforded Healthcare Management students throughout their coursework over this past assessment period there continues to be significant interest in obtaining Lean Six Sigma Green Belt (LSSGB) certification. Lean Six Sigma is a cataloged emphasis offered at Oregon Tech and culminates in an industry-recognized LSSGB certification demonstrating competency in business problem solving. Each project requires an industry-sponsored project and meets the evidence-based criteria for certification which include appropriate coursework and documented evidence of a completed project using the Define, Measure, Analyze, Improve, Control methodology.

Coupled with the certification projects, Senior Project Symposium provides another tremendous learning experience during the senior project process. Students are given the opportunity to present their projects in a formal environment to peers, faculty, industry sponsors, and the community at large. This year's project's included:

- Outpatient Imaging Expansion
- Employee Engagement
- Oxygen Improvement Workflow
- University Medical Billing Improvement Process

- Vaccine Education
- Patient Portal Upgrade
- Mental Health Screening

### **Success Stories**

Healthcare Management students speak highly of the courses they take as evidenced by course evaluations, but many students also derive tremendous value from their internships and senior projects. Below are two such experiences shared by students through the exit survey over this assessment period.

*“The Health Care Management program should market themselves more. There a lot of careers in it and people do not realize it. I would choose it over anything else. There is a lot of potential for it.”*

Regarding courses and professors:

*“[He] applied life experiences to concepts to help us better understand the material.”*

*“[She] prepared us for future jobs and was a role model for women in the business management department.”*

*“[He] has been an advocate for his students, he is always willing to lend a hand in class or preparing for a job interview. He provides effective solutions to problems while making sure his students understand how he got the answer, he really goes above and beyond for his students while creating a positive work environment.”*

### **Program Purpose**

#### **Bachelor of Science in Healthcare Management – Radiologic Science Option Mission**

The Health Care Management – Radiologic Science Option degree fully prepares students to assume managerial/supervisory positions in any health care clinic, hospital department, or health care related management position.

### **Educational Objectives**

The Health Care Management – Radiologic Science Option provides students with the knowledge and skills necessary to competently manage a health care facility.

### **Management Department Student Learning Outcomes (SLO)**

The Healthcare Management degree consists of the five core Management Department student learning outcomes. Upon completion of this program, Healthcare Management graduates will be able to:

1. Communicate the major concepts in the functional areas of accounting, marketing, finance, information technology, and management.
2. Describe the legal, social, ethical, and economic environments of business in a global context.
3. Solve organization problems, individually and/or in teams, using quantitative, qualitative, and technology-enhanced approaches.
4. Demonstrate professional communication and behavior.
5. Apply knowledge of business concepts and functions in an integrated manner.

### **Program Student Learning Outcomes (PSLO)**

Upon completion of this program, Healthcare Management graduates will be able to:

1. Interpret health policy and systems.
2. Assess the sustainability of healthcare organizations.

## Assessment Cycle

### Assessment Schedule

1. **Oregon Tech's Essential Student Learning Outcomes:** ESLOs are assessed on a six-year cycle. The ESLO assessment schedule may be found on the Oregon Tech website under Essential Student Learning Outcomes.
2. **Department Level Student Learning Outcomes:** IACBE requires all accredited institutions to complete a Public Disclosure of Student Achievement on an annual basis. In addition, all outcomes are assessed annually, with the full self-study for IACBE core student learning outcomes (Core SLOs 1-5) completed every seven years.

| Outcomes:   | Direct   | Indirect   |
|---|--|--|
| Communicate the major concepts in the functional areas of accounting, marketing, finance, information technology, and management. | <ul style="list-style-type: none"> <li>• Case Study</li> <li>• Senior Project</li> </ul> | <ul style="list-style-type: none"> <li>• Senior Exit Survey</li> </ul> |
| Describe the legal, social, ethical, and economic environments of business in a global context.                                   | <ul style="list-style-type: none"> <li>• Case Study</li> <li>• Senior Project</li> </ul> | <ul style="list-style-type: none"> <li>• Senior Exit Survey</li> </ul> |
| Solve organization problems, individually and/or in teams, using quantitative, qualitative, and technology-enhanced approaches.   | <ul style="list-style-type: none"> <li>• Case Study</li> <li>• Senior Project</li> </ul> | <ul style="list-style-type: none"> <li>• Senior Exit Survey</li> </ul> |
| Demonstrate professional communication and behavior.  | <ul style="list-style-type: none"> <li>• Case Study</li> <li>• Senior Project</li> </ul> | <ul style="list-style-type: none"> <li>• Senior Exit Survey</li> </ul> |
| Apply knowledge of business concepts and functions in an integrated manner.   | <ul style="list-style-type: none"> <li>• Case Study</li> <li>• Senior Project</li> </ul> | <ul style="list-style-type: none"> <li>• Senior Exit survey</li> </ul> |

3. **Program Student Learning Outcomes:** Program Based Annual Assessment Schedule and Activity

| Outcomes:   | Direct  | Indirect   |
|---|---|--|
| Interpret health policy and systems.                  | <ul style="list-style-type: none"> <li>• Senior Project</li> <li>• Community Project</li> </ul> | <ul style="list-style-type: none"> <li>• Senior Exit Survey</li> </ul> |
| Assess the sustainability of Healthcare organizations | <ul style="list-style-type: none"> <li>• Senior Project</li> <li>• Community Project</li> </ul> | <ul style="list-style-type: none"> <li>• Senior Exit Survey</li> </ul> |

## Evidence of Improvement in Student Learning

### 1. Department Level Student Learning Outcomes, Activities and Results

| Management Department |                                |                         |                      |
|-----------------------|--------------------------------|-------------------------|----------------------|
| Program Outcomes      | Minimal Acceptable Performance | Assessment from 2019-20 | Results from 2019-20 |
|                       |                                |                         |                      |

|   |                               |                            |     |
|---|-------------------------------|----------------------------|-----|
| Communicate the major concepts in the functional areas of accounting, marketing, finance, information technology, and management. | 80% achieve a rate of 3 or 4  | Senior Project<br>N=74     | 88% |
|   | 80% achieve a rate of 3 or 4  | Case Study<br>N=89         | 88% |
|   | 80% score 4, 5, or 6          | Senior Exit Survey<br>N=81 | 85% |
| Describe the legal, social, ethical, and economic environments of business in a global context.                                   | 80% achieve a rate of 3 or 4. | Senior Project             | 88% |
|   | 80% achieve a rate of 3 or 4  | Case Study                 | 87% |
|   | 80% score 4, 5, or 6          | Senior Exit Survey         | 91% |
| Solve organization problems, individually and/or in teams, using quantitative, qualitative, and technology-enhanced approaches.   | 80% achieve a rate of 3 or 4. | Senior Project             | 88% |
|   | 80% achieve a rate of 3 or 4  | Case Study                 | 82% |
|   | 80% score 4, 5, or 6          | Senior Exit Survey         | 96% |
| Demonstrate professional communication and behavior.  | 80% achieve a rate of 3 or 4. | Senior Project             | 81% |
|   | 80% achieve a rate of 3 or 4  | Case Study                 | 87% |
|   | 80% score 4, 5, or 6          | Senior Exit Survey         | 98% |
| Apply knowledge of business concepts and functions in an integrated manner.   | 80% achieve a rate of 3 or 4  | Senior Project             | 80% |
|   | 80% achieve a rate of 3 or 4  | Case Study                 | 88% |
|   | 80% score 4, 5, or 6          | Senior Exit Survey         | 99% |

### Department Level: SLOs

During the past few years, the Department SLOs and assessment plan was significantly streamlined. During 2017-18 the department assessed SLOs with two direct and one indirect methods - Case Study (BUS478) and Senior Project, and Student Exit Survey. During the 2018-19 academic year, the department focused on reviewing the senior project using a qualitative survey. Based on that review, the senior project group worked together to update the senior project rubric to ensure that it could be applied to projects in all majors. In addition, the department updated the SLOs prior to our self-study. Student learning outcomes through the end of the year 2019-20:

- Communicate the major concepts in them functional areas of accounting, marketing, finance, information technology and management.
- Describe the legal, social, ethical and economic environments of business in an internal/external (global) context.
- Solve organization problems, individually and/or in teams, using quantitative, qualitative, technology-enhanced approaches.
- Demonstrate professional communication and behavior.
- Apply knowledge of business concepts and functions in an integrated manner.

### New SLOS (starting 2020-21)

- Apply core concepts in a business environment.
- Describe the legal, ethical, social, and economic environments of business in a global context.
- Contribute to the development of a team-oriented and collaborative environment.

- Solve business problems using decision-support tools and/or research skills.
- Demonstrate professional communication and behavior using a variety of delivery methods.
- Analyze business concepts and apply strategic planning skills to effect change in an integrated manner.

**Closing the Loop:** Describe any actions taken and re-assessment done during (2019-20) in direct response to assessment findings from prior academic years.

- **Senior Project:** In the 2018-19 academic year the department conducted a qualitative review of senior projects. That review found that the goals among the different majors in the department were not completely aligned. In 2019-20, the department took steps to address this issue.
  - **Closing the Loop Activities:** During the 2018-19 academic year, the department faculty focused our assessment efforts on a qualitative review of senior projects. A small sample of projects from each major was compiled. Each faculty reviewed multiple projects and completed a qualitative survey tool that was tied to department outcomes and the senior project rubric. The result of this assessment uncovered two areas that need further exploration:
    - **Senior Project Rubric:** The senior project rubric was either not being utilized or was being used in an inconsistent way. Based on this discovery, the department brought the senior project faculty together during 2019-20 for a series of meetings to update the rubric used to guide and assess the senior projects. This led to a refocus on common goals among the faculty and an updated rubric that fulfills the goals for all business management majors. This rubric was implemented during the spring of 2020.
    - **Student Learning Outcomes (Department-level):** In addition, the department updated the Student Learning Outcomes for the department in an effort to update the SLOs to more closely align with the requirements of our assessment body, IACBE. In addition, it was determined that the senior project would focus on SLOs 1,3, 4, and 5 as we move into 2020-21.
- **Case Study:** The plan for the 2019-20 year was for the course faculty to continue to discuss their approaches and share ideas for the Strategic Management course and the assignment. As with the senior project refining the approach to this class and assessment may be able to pinpoint areas of improvement.
  - **Closing the Loop Activities:** The two faculty that teach the Strategic Management class did engage in discussions regarding approaches to the case study assignment. While one faculty includes the assessment in one assignment, the other spreads out the components of the assignment over the term. During the 2019-20 academic year, the case study was discussed as part of the update of student learning outcomes. The decision was made that moving forward, rather than assessing all SLOS in the case study, the department would only focus in on two - #2 and #6, which more closely align with the course content.
- **Senior Exit Survey:** During the 2019-20 academic year, the faculty determined we will make another adjustment to the senior exit survey. The question asked for student to rate their understanding of the SLOs. Previously we had changed the word proficiency with understanding since this will more accurately focus on the question's intent. During the 2019-20 academic year, there was improvements in the area of finance and accounting, which we believe more accurately reflects the program results.
  - **Closing the Loop Activities:** The results of the exit survey for the 2019-20 year nearly met the 80% threshold for all SLOs which is an improvement from prior years. The word change to understanding did make an impact. The senior exit survey will be updated for the 20-21

year to include the new SLOs. As we move forward with the new SLOs, a comparison with the prior SLOS will be completed.

- **Covid-19-** Faculty did notice that the Covid-19 pandemic did make a significant impact on the students in their senior year. The faculty plan to have further discussions regarding this new normal so we can offer flexibility and resiliency to better support students when uncertainties arise.
- **Operational Strategies and Improvements:** Approximately three years ago the department developed an Action Plan document that is tied to our department's strategic plan. This plan directly supports the mission of Oregon Tech. The Action plan is broken into the following themes:
  - **College of Business:** The department is working to create a separate college at Oregon Tech to better support and highlight our programs. The plans for this area includes the development of a business plan, budget and balanced scorecard, as well as rebuilding our advisory board for college-level, and the development of showcase spaces on the campus.
  - **Enrollment/Outreach/Retention/Marketing:** Work in this area includes the development and expansion of the very successful Jump into Business program. During the 2019-20 year, the program added five new high schools including one of the largest business clubs in the state. Other work in this area includes developing a formal retention program, and extending our marketing efforts.
  - **Quality Programs/Curriculum:** We continue to improve all of our 11 programs through program development, continual improvement, online standards and oversight. In the last two years the department added the Cybersecurity program. The department also expanded our Business Management program to online and is currently waiting for approval to expand Healthcare and Business Management to our Portland Metro campus. Moreover, during the 2019-20 year, the department streamlined course offerings to provide better communication with students. During 2019-20, the department started to develop three masters programs.
  - **Labs/Facilities:** Because many of our programs can be enhanced by quality labs and spaces, during 2019-20 the department developed space plans for the new CEET building.
  - **Increased Reputation/Alumni/Industry Engagement:** During the 2019-20 year, the department recommitted efforts to engage students in national competitions. We also continued to promote our students' projects through social media and press releases. We also took steps to rebuild our advisory board.
  - **Resources:** The department continues to align our resources with our departmental goals and objectives. We developed a model to better align the stipend/release model to focus on these goals, however the administration stalled the program making it challenging to align goals with resources.

## 2. Program Student Learning Outcomes, Activities and Results

| Healthcare Management                                 |                                | Showing all HCM option results |                       |
|---|--------------------------------|--------------------------------|-----------------------|
| Program Outcomes                                      | Minimal Acceptable Performance | Assessment From 2019-20        | Results From 20119-20 |
| Interpret health policy and systems.                  | 80% achieve a rate of 3 or 4   | Senior Project<br>N=8          | 75%                   |
|   | 80% achieve a rate of 3 or 4   | Community Project<br>N=4       | 75%                   |
|   | 80% score 4, 5, or 6           | Senior Exit Survey<br>N=8      | 75%                   |
| Assess the sustainability of Healthcare organizations | 80% achieve a rate of 3 or 4.  | Senior Project<br>N=8          | 75%                   |
|   | 80% score 4, 5, or 6           | Senior Exit Survey<br>N=8      | 88%                   |

### Program Level Review: Results, Closing the Loop of Prior Action Plans, and Action Plans for this academic year:

- **2019-20 Results:** Summary of results includes:
  - **Direct/Senior Project:** During the 2019-20 year, 75% of students met the minimal acceptable performance level which was a bit below the prior year. Considering the small sample sizes there was no significant change in the level of performance. Moreover, this small dip could be evidence of the affects of Covid-19 on students during their final terms.
  - **Direct/Community Project:** During the 2019-20 year, 75% of students met the minimal acceptable performance level which was lower than the prior year. Considering the small sample sizes this will be watched this coming year.
  - **Indirect/Senior Exit Survey:** During the 2019-20 year, 88% of students met the minimal acceptable performance level, which was consistent with the prior year.
  
- **Closing the Loop Activities:**
  - **General Curriculum update:** Action plans included better aligning curriculum across the three Health Care Management options and continuing to pursue internship and senior project opportunities for students in this major. The department revised the curriculum to increase emphasis on HI and social factors of health care, however, a couple student comments spoke to lack of preparedness around insurance, policies, and coding. The faculty continue to review how these elements can be emphasized in the curriculum.
  - **Senior Projects/Internships:** Also, students continue to mention difficulty finding internships or identifying senior projects within the healthcare field (unless they are currently working in the field). This continues to be a challenge. Unlike other business majors, the department may need to “collect” opportunities through industry contacts and alumni in the field.
  - **MIS 345 Health Info systems and communication systems:** This outcome assesses the student’s ability to review and interpret health systems. Naturally this course has been focused around a community project. In an industry practice there are times when the project students are working on does not necessarily lend itself to the student’s ability to disseminate the health system or policy their project interacts with. In the community project environment not all projects are created equal but the value of community interaction, application, communication, teamwork and growth is significant.

- **Action Plans for 2020-21:** Due to the issues noted above, the following actions will continue:
  1. Review the HCM curriculum map and revise/re-align with IACBE departmental requirements.
  2. BUS 313 is the only course where health systems is studied. The faculty will review if other courses need to follow up on the content or introduce a requirement to sr. project.
  3. MIS 345 was cancelled this year due to low enrollment. Further, this course is a community based course, and due to COVID-19 regulations wouldn't have been able to run in the regular fashion. A revised project will need to be introduced for next year if COVID precautions remain in place for 2021-2022. Faculty will review ways to incorporate the PSLO of Health Systems and Policy Interpretation as an independent module or specifically create an activity to aid students in the interpretation process.