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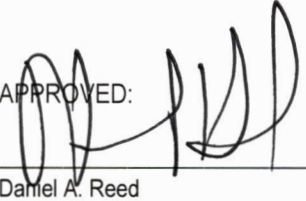January 5, 2021

Daniel A. Reed
Senior Vice President for Academic Affairs
205 Park Bldg.
Campus

APPROVED: _____ 1/5/21
Daniel A. Reed                              Date
SVP for Academic Affairs

_____ 1/6/21
Ruth V. Watkins                            Date
President

RE:     Graduate Council Review
        Dept. of Operations and Information Systems

Dear Vice President Reed:

Enclosed is the Graduate Council's review of the Department of Operations and Information Systems. Included in this review packet are the report prepared by the Graduate Council, the Department Profile, and the Memorandum of Understanding resulting from the review wrap-up meeting.

After your approval, please forward this packet to President Ruth Watkins for her review. It will then be sent to the Academic Senate to be placed on the information calendar for the next Senate meeting.

Sincerely,

David B. Kieda
Dean, The Graduate School

Encl.

XC:     Glen M. Schmidt, Chair, Dept. of Operations and Information Systems
        Taylor R. Randall, Dean, David Eccles School of Business
        Rachel M. Hayes, Associate Dean for Faculty and Research, David Eccles School of Business

**The Graduate School**
201 Presidents Circle, Room 302
Salt Lake City, Utah 84112-9016
(801)581-7642
FAX (801)581-6749
http://www.gradschool.utah.edu

**The Graduate School - The University of Utah**


**GRADUATE COUNCIL REPORT TO THE SENIOR VICE PRESIDENT**
**FOR ACADEMIC AFFAIRS AND THE ACADEMIC SENATE**


*October 28, 2019*


The Graduate Council has completed its review of the **Department of Operations and Information Systems.** The External Reviewer was:

> Mark Ferguson, PhD
> Wilbur Smith Professor and Chair, Management Science Department
> Darla Moore School of Business
> University of South Carolina


The Internal Reviewer for the University of Utah was:

> John T. Langell, MD, PhD, MPH
> Associate Professor
> General Surgery Division
> School of Medicine

This report of the Graduate Council is based on the self-study submitted by the Department of Operations and Information Systems, the reports of the external and internal reviewers, and a response to the external and internal reports from the Chair of the Department. The Dean of the David Eccles School of Business endorsed the response of the Department Chair.

## DEPARTMENT PROFILE

### Program Overview

The Department of Operations and Information Systems (OIS) is one of six departments in the David Eccles School of Business (hereafter "Eccles School"). It was established in January 2009 in an effort to encourage synergy between faculty from the Management and Accounting and Information Systems departments. These faculty were observed to have similar research and teaching interests at the intersection of Information Systems (IS) and Operations and Supply Chain Management (OSC). The Department still maintains a dual expertise in these two areas. The Department has managed to build a strong reputation for itself in its relatively short period of existence, quickly climbing among the top 50 programs in North America. The Department has high ambitions to continue to climb the rankings, with specific strategies in place and aligned with the Eccles School more generally for achieving a top 25 ranking.

The OIS Department offers undergraduate majors in each of its areas of emphasis (IS and OSC), a minor in IS, a graduate certificate in IS, a Master of Science degree in IS, and a PhD (with emphasis in IS or OSC). Additionally, in conjunction with the Marketing Department, the OIS Department offers a graduate certificate and a Master of Science degree in Business Analytics.

The biggest challenge currently facing this Department is to develop a unified, collaborative vision for the Department as a whole. The Department was formed in order to promote a synergy between faculty specializing in IS and those in OSC. However, by all accounts, this division in specialization is currently having the opposite effect within the Department, causing internal conflicts instead of synergistic collaboration.

Of special note is the recent addition to the OIS Department (since the start of this review) of the Master of Healthcare Administration (MHA) program (a formerly freestanding program within the Eccles School). In a response to the MHA reviewers' reports, the director stated "The MHA became part of the OIS Department in March and began a strategic process with its Chair and our Community Advisory Board to plan across the next 5 years to replace existing faculty and attract new tenure-track and career-line faculty."

### Faculty

The Department includes 12 tenure-line and 11 career-line faculty members (lecturers). The faculty is informally divided according to area of specialization. Twelve faculty members (4 tenure-line faculty and 8 career-line) specialize in the IS area and 11 (8 tenure-line and 3 career-line) in the OSC area. Several faculty members in the OSC area presently hold administrative positions, including the Dean of the Eccles School, Associate Dean of Programs, and the Department Chair. The Department currently hires one visiting assistant professor and an average of about 30 adjunct faculty who teach regularly.

Faculty portfolios indicate "a significant pool of accomplishments" and "provide evidence of meaningful contributions to…the school's research and teaching missions" (external review). Student feedback indicates that teaching quality is "generally high" (internal review) and faculty in both parts of the Department have been recognized with teaching awards. Academic scholarship since the last review is described as "highly variable," with number of publications varying widely across the faculty (internal review). Certain metrics such as total articles published fall below the national mean for 82 similar departments; nevertheless, the Department ranks "above the national mean for total faculty awards and grants" (internal review). Importantly, recent tenure-track hires are described as "increasing [the Department's] quality research representation in both OM and IS," placing it "in a good position to develop a strategic vision that focuses on issues central to knowledge and practice" (external). The Department also hosts some nationally-recognized conferences each year, which have increased its visibility and contributed to its strengthening reputation in the field at large.

Professor Glen Schmidt is the current Department Chair. His leadership is praised by faculty, students, and reviewers. Reviewers commend his "very proactive" management (external) and his efforts to "improve departmental growth, internal dynamics and communication" (internal). The present divisions between distinct faculty subdivisions (see below) arose before his tenure began and persist *despite* his strong efforts to promote the social dynamics and communication within the faculty.

The Department has made much progress in increasing its gender diversity, hiring three female tenure-line faculty members since 2011, and now including 33% (4/12) female tenure-line faculty members. This progress is attributable to active efforts to increase general diversity taken by the Department, efforts which are praised, e.g. by the external reviewer. The internal review commends this "significant progress." The compositions of the Department's career-line and adjunct faculty remain noticeably less diverse (18% and 10% female respectively). Also, the Department generally has struggled to increase its diversity with respect to US underrepresented minorities (URM), with no members of the faculty from such groups. The external reviewer notes that these struggles are issues for the field generally, and not just for this department. As Professor Schmidt writes (Chair's response letter): "Assembling a more diverse faculty and student body remains a top goal but an elusive one." Department leadership is aware of the problem and supportive of efforts to increase faculty diversity moving forward.

To a troubling degree, external and internal reviews focused on tensions between the distinctly specialized faculty of the Department, those in IS and those in OSC. The external reviewer remarks that this issue is a challenge that "appears to dominate all others," resulting in confusion and an unfortunate lack of clarity trickling down to junior faculty and doctoral students. The internal review states bluntly that "faculty morale within the OIS Department is low." Reviewers suggested several factors contributing to the tensions. These include a feeling of competition over internal resources, hiring, and internal funding as well as differences of opinion across the subareas about how research productivity should be measured (including standards pertaining to which journals are most important to be publishing in). Notably, the Department has not developed a unified strategic plan defining its overarching purpose and goals, in spite of the initial hopes for synergy between IS and OSC, and recommendations from the previous review (though the Department's self-study does mention that they have "thought about [their] purpose and plans […and] held faculty meetings to discuss ways [they] can contribute to broader School-wide objectives"). The external reviewer points to the relatively small size of the Department as a decisive factor ruling out any potentially appealing ideas of officially dividing the Department into separate units (a point he re-emphasized strongly in the exit meeting). Thus, without a greater, School-wide restructuring effort, the Department will need to address these tensions by actively nurturing a more cooperative, synergistic vision.

The Department includes a large and increasing number of impressive career-line and adjunct faculty. Reviewers noted the substantial role of these faculty in the teaching and student mentoring missions of the Department. Students praise the helpfulness and availability of these faculty members inside and outside the classroom. Both reviewers, however, note some anxiety and low morale within the ranks of the adjunct faculty, attributable in part to a lack of communication and integration across faculty ranks. Steps are notably being taken now to attempt to alleviate these concerns. Specifically, the Department plans to assign an "onboarding coordinator" (out of the ranks of career-line faculty members) in order to improve the onboarding process for adjuncts by giving them an additional point of contact and by enhancing the training and feedback they receive. Other steps include the planned addition of informational/training/social events for adjunct faculty each semester, and inclusion of adjuncts in "best practice" seminars each semester.

## Students

Though the number of PhD students currently in the program is not given, the Department's self-study indicates that 13 students successfully completed their dissertations in the current review period. The reviewers express mixed opinions regarding the PhD program; while the internal review states that "all of the OIS doctoral students graduating in the past 7 years have had excellent post-graduation academic position placements," the external review states that the graduating doctoral students "do not appear to have a national reputation of being consistently high-quality in any one particular area or methodology." Encouragingly, the Chair's response acknowledges that "[the] doctoral programs will benefit from some reevaluation and revitalization." The reevaluation of the doctoral program will be important to consider as the Department develops a shared vision and strategic plan. While doctoral students largely praise their faculty and program of study, they have also expressed concerns that the locking of stipend levels by year of entry into the program creates inequity.

The MSIS program has grown impressively since 2011 (from 63 to 234 students in 2017-2018), in large part reflecting increased enrollments of international students. The Department reports having 289 undergraduate majors as of 2017-2018, with approximately 200 in IS and 89 in OSC. The external reviewer notes that the OSC major appears to suffer in numbers from a general lack of student awareness due to the fact that the core OSC class (where most students are introduced to the major) is not a prerequisite for elective classes for other majors; the result is that students (who might otherwise have been interested in making OSC their major) delay in taking the class until their junior or senior year. OIS students at all levels uniformly praise the faculty and program of study, describing the faculty as especially supportive and inclusive, and the assessments as fair.

The Department has taken active steps to increase student diversity in response to the 2011 review. Some increases in diversity have come by way of "dedicated campaigns" "targeting diverse candidates." The percentage of female students in the MSIS program has increased substantially, from 17% in 2011 to 34% in 2018. Increases in URM representation have proven harder to achieve, standing at 5.5% for undergraduate students in the 2017 academic year, a statistic that has remained relatively constant since 2011 despite active campaigns and efforts by the School and Department.

## Curriculum

The OIS Department curriculum contains a broad variety of degree and specialization options, including undergraduate majors in each of its areas of emphasis (IS and OSC), a minor in IS, a graduate certificate in IS, a Master of Science degree in IS, and a PhD (with emphasis in IS or OSC). Additionally, in conjunction with the Marketing Department, the OIS Department offers a graduate certificate and a Master of Science degree in Business Analytics. The external review indicates that "the undergraduate curriculum for both majors incorporates a robust set of core and elective courses." The various degree programs on offer are generally well-liked by the Department's students, who "[express] particular enthusiasm about learning in project-based courses" (external review) and feel that "the curriculum and programs of study prepared [them] very well for both real-world application as well as advanced academic pursuits" (internal review). One concern expressed by faculty was that, due mostly to lack of departmental expertise and/or bandwidth, some required courses for the MSIS degree had to be taken externally (online).

In addition to the above degree and certificate programs, the Department actively supports various extracurricular activities for students, including "an operations and supply chain club and an information systems club." These clubs, along with other extracurricular activities, foster community for students of all levels in the Department and provide opportunities for students to connect with professionals working in the community in their desired fields of expertise.

PhD students must pass a two-part (written and oral) qualifying exam successfully before moving on to the dissertation stage. These exams (particularly the oral portion) are often used as a tool for moving the student along in developing his or her dissertation project idea. Master's students are not given qualifying exams; however, the MSIS degree requires students to complete a capstone experience, a requirement involving and promoting students' professional development.

## Program Effectiveness and Outcomes Assessment

Program effectiveness and outcomes are largely assessed in accordance with School-level policies and standards. An Undergraduate Curriculum Committee functions to monitor undergraduate educational performance in five specific areas that align with AACSB "Assurance of Learning Expectations" guidelines. These include the development of: 1) essential business knowledge, 2) problem solving skills, 3) effective communication, 4) entrepreneurial (or strategic) mindset, and 5) engaged citizenship. Whether undergraduates are achieving these goals is assessed via a series of specified course exams, papers, and presentations.

The Department's shared MSBA program measures and tracks goals in seven specific knowledge areas based on the INFORMS Certified Analytics Professional (aCAP) examination. Whether this program is providing students with such knowledge is assessed using exam simulators, course assignments, and the like.

The PhD program and students are monitored and assessed by a School-level committee, which develops policies and guidelines for the entire School. The relevant learning goals and assessment measures are tailored to four "Assurance of Learning Goals" describing the general traits of a skilled doctoral scholar. Additionally, PhD students undergo an annual review performed by the PhD faculty director in the student's

department, incorporating feedback from faculty members teaching the students' PhD seminars and faculty for whom the student has worked as an RA. At the end of the review process, the PhD director meets with students and provides them with written and oral feedback.

As the internal reviewer summarizes, "Overall the department and school work jointly to ensure that programs are effective and assessed for quality on a regular basis." The reviewer went on to state that appropriate changes to coursework result from assessing outcomes, and the Department's self-study included specific examples of how the MSIS curriculum committee implemented improvements to this program based on outcomes assessment.

## Facilities and Resources

Facilities are maintained through the Eccles School, primarily through internally-generated revenue. This model has led to success in securing adequate resources and funding for developing and maintaining superior, shared facilities across the Eccles School. Faculty, staff, and students all recognize and praise the outstanding quality of their facilities.

Currently, the Department has one full-time administrative assistant. Her duties include budget management, faculty and student administrative support, and organizing several conferences the Department sponsors. The faculty view this level of departmental administrative support as insufficient. Notably, this level of administrative support has not increased since the time of the last department review (2011) despite substantial increases in the number of course sections offered and in the number of students and adjunct faculty affiliated with the Department. The internal review mentions that "Faculty have commented that this [strain on administrative staff] has created a performance bottleneck for them."

## COMMENDATIONS

1. The OIS Department is successfully developing itself as a top department in both OSC and IS. The Department is known for high quality research and for hosting conferences that have gained recognition in the discipline.

2. The Department has taken active steps toward increasing its diversity, and these efforts have begun to pay off with respect to the gender diversity of its full-time faculty and MSIS students.

3. Glen Schmidt is, by all accounts, doing an outstanding job chairing the Department. He is cognizant of the challenges facing his department and is working hard to encourage open communication and healthy relations.

4. The OIS Department offers a well-respected, robust, and well-appreciated curriculum. Its PhD students have been placed in excellent positions; its MSIS program is growing quickly while attracting strong students from around the world; and it is home to an increasing number of committed and satisfied undergraduates.

5. The Department has managed to hire a growing number of high-quality career-line faculty. These faculty are seen as essential in the growth, flourishing, and management of the undergraduate and graduate programs.

## RECOMMENDATIONS

1. The OIS Department must develop and foster a more unified, cooperative vision, highlighting shared goals and synergistic priorities. Promising steps toward this end might include: a) the development of an explicit strategic plan highlighting the overarching purpose and goals of the Department, and b) the clarification of explicit, transparent RPT guidelines (including publication standards and expectations) agreed upon across the two areas of faculty specialization.

2. The Department should continue to take creative, proactive steps toward increasing its faculty and student diversity, particularly with respect to gender and US underrepresented minorities.

3. A more inclusive environment should be nurtured for career-line and adjunct faculty. Specific suggestions include opening up more lines of department communication and opportunities to the career-line faculty, including such faculty on committees and in regular seminars/meetings, and an improved, more uniform onboarding process for adjuncts.

4. The Department should work with administration to add faculty who create disciplinary balance and synergy, as well as to bolster administrative support commensurate with the Department's growth. New programs should not be considered until faculty have the breadth to fully cover current curriculum and until administrative support is sufficient.

Submitted by the Ad Hoc Committee of the Graduate Council:

Jonah Schupbach (Chair)
Associate Professor, Department of Philosophy

David Blair
Professor, School of Biological Sciences

**College Name**
David Eccles School of Business

**Department Name**
Operations & Information Systems

**Program**
All

## Faculty Headcount

| | | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 |
|---|---|---|---|---|---|---|---|---|---|
| With Doctoral Degrees Including MFA and Other Terminal Degrees | Full-Time Tenured Faculty | 6 | 6 | 5 | 5 | 6 | 7 | 7 | 7 |
| | Full-Time Tenure Track | 4 | 4 | 3 | 4 | 2 | 3 | 3 | 3 |
| | Full-Time Career Line/Adjunct Faculty | 1 | 1 | 2 | 2 | 3 | 5 | 7 | 6 |
| | Part-Time Tenure/Tenure Track | | | | | | | | |
| | Part-Time Career Line/Adjunct Faculty | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 |
| | Total | 11 | 11 | 10 | 11 | 11 | 15 | 19 | 19 |
| With Masters Degrees | Full-Time Tenured Faculty | | | | | | | | |
| | Full-Time Tenure Track | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 |
| | Full-Time Career Line/Adjunct Faculty | 3 | 2 | 3 | 3 | 3 | 2 | 7 | 5 |
| | Part-Time Tenure/Tenure Track | | | | | | | | |
| | Part-Time Career Line/Adjunct Faculty | 0 | 1 | 1 | 1 | 1 | 2 | 13 | 10 |
| | Total | 4 | 4 | 5 | 6 | 6 | 6 | 22 | 16 |
| With Bachelor Degrees | Full-Time Tenured Faculty | | | | | | | | |
| | Full-Time Tenure Track | | | | | | | | |
| | Full-Time Career Line/Adjunct Faculty | | | | | | | | |
| | Part-Time Tenure/Tenure Track | | | | | | | | |
| | Part-Time Career Line/Adjunct Faculty | | | | | | | | |
| | Total | | | | | | | | |
| Total Headcount Faculty | Full-Time Tenured Faculty | 6 | 6 | 5 | 5 | 6 | 7 | 7 | 7 |
| | Full-Time Tenure Track | 5 | 5 | 4 | 6 | 4 | 5 | 5 | 4 |
| | Full-Time Career Line/Adjunct Faculty | 4 | 3 | 5 | 5 | 6 | 7 | 14 | 11 |
| | Part-Time Tenure/Tenure Track | | | | | | | | |
| | Part-Time Career Line/Adjunct Faculty | 0 | 1 | 1 | 1 | 1 | 2 | 15 | 13 |
| | Total | 15 | 15 | 15 | 17 | 17 | 21 | 41 | 35 |

## Cost Study

| | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 |
|---|---|---|---|---|---|---|---|---|
| **Direct Instructional Expenditures** | 2,938,187 | 3,034,071 | 3,470,705 | 3,683,213 | 4,167,096 | 5,529,525 | 6,127,824 | 6,085,753 |
| **Cost Per Student FTE** | 3,966 | 3,917 | 4,206 | 4,269 | 4,389 | 5,370 | 5,881 | 5,849 |

## Student FTE from Cost Study by Instructor's Status with the University

| | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 |
|---|---|---|---|---|---|---|---|---|
| **Full-Time** | 27 | 18 | 14 | 16 | 11 | 11 | 16 | 18 |
| **Part-Time** | 4 | 6 | 4 | 2 | 5 | 8 | 6 | 6 |
| **Teaching Assistants** | 1 | 7 | 3 | 3 | 1 | 0 | 2 | 2 |

## Funding

| | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 |
|---|---|---|---|---|---|---|---|---|
| **Total Grants** | 0 | 13,356 | 15,272 | 0 | 0 | 0 | 0 | 0 |
| **State Appropriated Funds** | 1,857,777 | 1,852,152 | 2,680,001 | 2,467,799 | 845,008 | 1,887,367 | 6,126,360 | 6,080,695 |
| **Teaching Grants** | | | | | | | | |
| **Special Legislative Appropriation** | | | | | | | | |
| **Differential Tuition** | | | | | | | | |

## Student Credit Hours and FTE

| | | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 |
|---|---|---|---|---|---|---|---|---|---|
| SCH | Lower Division | 7,242 | 7,587 | 7,584 | 6,921 | 7,044 | 7,635 | 7,716 | 7,512 |
| | Upper Division | 7,536 | 8,202 | 9,139 | 10,095 | 10,674 | 10,557 | 9,902 | 9,370 |
| | Basic Graduate | 4.817 | 4.814 | 5.239 | 5.736 | 7.057 | 8.334 | 8.920 | 9.426 |

| | | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 |
|---|---|---|---|---|---|---|---|---|---|
| | Advanced Graduate | 149 | 150 | 114 | 176 | 121 | 134 | 173 | 128 |
| FTE | Lower Division | 241 | 253 | 253 | 231 | 235 | 255 | 257 | 250 |
| | Upper Division | 251 | 273 | 305 | 337 | 356 | 352 | 330 | 312 |
| | Basic Graduate | 241 | 241 | 262 | 287 | 353 | 417 | 446 | 471 |
| | Advanced Graduate | 7 | 8 | 6 | 9 | 6 | 7 | 9 | 6 |
| FTE/FTE | LD FTE per Total Faculty FTE | 7 | 8 | 12 | 11 | 14 | 13 | 11 | 10 |
| | UD FTE per Total Faculty FTE | 8 | 9 | 14 | 16 | 21 | 18 | 14 | 12 |
| | BG FTE per Total Faculty FTE | 7 | 8 | 12 | 14 | 21 | 21 | 18 | 18 |
| | AG FTE per Total Faculty FTE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Enrolled Majors

| | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 |
|---|---|---|---|---|---|---|---|---|
| Undergraduate Pre-Majors | | | | | | | | |
| Undergraduate Majors | 133 | 151 | 174 | 195 | 207 | 236 | 209 | 228 |
| Enrolled in Masters Program | 62 | 103 | 126 | 140 | 180 | 232 | 271 | 271 |
| Enrolled in Doctoral Program | | | | | | | | |
| Enrolled in First-Professional Program | | | | | | | | |

## Degrees Awarded

| | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 |
|---|---|---|---|---|---|---|---|---|
| Undergraduate  Certificate | | | | | | | | |
| Graduate Certificate | 0 | 0 | 9 | 21 | 39 | 40 | 44 | 60 |
| Bachelors | 102 | 108 | 111 | 111 | 111 | 141 | 134 | 127 |
| Masters | 42 | 59 | 63 | 83 | 96 | 155 | 180 | 201 |
| Doctorate | | | | | | | | |
| First-Professional | | | | | | | | |

# Memorandum of Understanding
## Department of Operations and Information Systems
## Graduate Council Review 2018-19

This memorandum of understanding is a summary of decisions reached at a wrap-up meeting on August 24, 2020, and concludes the Graduate Council Review of the Department of Operations and Information Systems. Daniel A. Reed, Senior Vice President for Academic Affairs; Taylor R. Randall, Dean of the David Eccles School of Business; Rachel M. Hayes, Associate Dean for Faculty & Research of the David Eccles School of Business; Glen M. Schmidt, Chair of the Department of Management; David B. Kieda, Dean of the Graduate School; and Katharine S. Ullman, Associate Dean of the Graduate School, were present.

The discussion centered on but was not limited to the recommendations contained in the review summary report presented to the Graduate Council on October 28, 2019. The working group agreed to endorse the following actions:

**Recommendation 1: The OIS Department must develop and foster a more unified, cooperative vision, highlighting shared goals and synergistic priorities. Promising steps toward this end might include: a) the development of an explicit strategic plan highlighting the overarching purpose and goals of the Department, and b) the clarification of explicit, transparent RPT guidelines (including publication standards and expectations) agreed upon across the two areas of faculty specialization.**

The OIS Department was created based on the potential of bringing Operation Supply Chain and Information Systems together in a synergistic way, but a strategic plan is needed to unite faculty and to articulate how to build on the advantages and strengths that come from partnering these areas. As SVP Reed stated, the Department "needs to own its future" and Dean Kieda stressed that a strategic plan should be made and discussed by faculty in the coming year. The plan should identify what the Department aspires to, considering factors such as recognition, size, and disciplinary balance. Strategic planning must also integrate –and hopefully leverage– the Master of Healthcare Administration program now housed within OIS (for instance, in the spirit of One U, collaborative hires with Health Sciences could be considered). Two areas that can drive strategic planning dialogue forward are hiring and curriculum. In the case of hiring in the tenure-line, the Eccles School Dean's office views this as a catalyst for creating an emergent strategy. Faculty hires will mold the direction of the Department, but will be chosen by first agreeing on hiring priorities and how to identify candidates that the Department as a unit supports. By putting the focus of discussion on this early stage, it is hoped that conflict and tension due to RPT evaluation will be averted later; yet, clear articulation of RPT guidelines through faculty consensus must be a priority during the next year. SVP Reed suggested that curriculum often can serve as a bridge between faculty and may help identify useful

intersections. With the doctoral program in particular, finding a signature emphasis of the Department's training may also galvanize faculty around a common goal. Given the importance of taking productive steps towards developing a strategic plan, the Graduate School would like to receive an update on progress in one year.

**Recommendation 2: The Department should continue to take creative, proactive steps toward increasing its faculty and student diversity, particularly with respect to gender and US underrepresented minorities.**

The Department recognizes diversity as an important issue and has several initiatives underway that include 1) working with AVP Projansky on achieving greater reach when advertising faculty positions, 2) instituting a scholarship for women in Information Systems, 3) targeting mentorship of career and adjunct female faculty for greater engagement and success, and 4) showcasing female alumni in information sessions for prospective students (a strategy that could be extended to alumni from underrepresented racial/ethnic backgrounds). Chair Schmidt also acknowledged great work by the Department's director of undergraduate programs in terms of increasing diversity in student recruitment. Dean Kieda mentioned the opportunity that a seminar series presents in terms of bringing in diverse speakers, which can both increase visible role models as well as create a network that may support future faculty recruitment efforts. As the pipeline of diverse faculty candidates is seen as an underlying constraint, the Department could also consider a postdoctoral program that creates opportunities to mentor and support diverse scholars along an academic track, with the potential for a faculty position here. Dean Randall noted that the conferences organized by the Department feature diverse speakers, and this has been an opportunity both to showcase the University of Utah and identify candidates to actively recruit.

**Recommendation 3:  A more inclusive environment should be nurtured for career-line and adjunct faculty. Specific suggestions include opening up more lines of department communication and opportunities to the career-line faculty, including such faculty on committees and in regular seminars/meetings, and an improved, more uniform onboarding process for adjuncts.**

An effective step taken by Chair Schmidt last year was to present a 'State of the Department' meeting, held outside the Department's facilities and open to all faculty. This led to increased awareness and appreciation of the contributions made by faculty in each category. Holding such a forum on a regular basis seems an excellent way to enhance communication and promote inclusion. This event was complemented by efforts the Chair made to communicate successes of faculty and staff. The Chair's response letter also described new processes to help onboard adjunct faculty. Expanding this to group discussions of best practices may also be helpful and Chair Schmidt was open to formalizing such a forum, but given the demands on time for adjunct faculty another tactic is to standardize core aspects of certain courses. Chair Schmidt described an expansion of cybersecurity curriculum that is following this model, with an experienced career-line faculty member spearheading the development of core modules that adjunct faculty can use and expand upon.

Another tactic the Department takes to support faculty with large teaching responsibilities is to provide a large number of TAs for course support. Finally, Chair Schmidt involves career-line faculty in faculty meetings and in department-wide decisions to the extent allowed by university policy. Overall, steps to be inclusive have been taken with intention, and feedback on department climate should be gathered regularly to gauge the success of these efforts.

**Recommendation 4: The Department should work with administration to add faculty who create disciplinary balance and synergy, as well as to bolster administrative support commensurate with the Department's growth. New programs should not be considered until faculty have the breadth to fully cover current curriculum and until administrative support is sufficient.**

The degree programs offered by OIS are flourishing and it is clear that they are constrained by the current teaching capacity of the Department. Chair Schmidt is eager to hire more faculty and Dean Randall was very supportive of this, noting that he sees an acute need. Building on dialogue that establishes hiring priorities, a departmental vision that is articulated within their strategic plan (Recommendation 1), and tactics for increasing diversity (Recommendation 2), the Department is poised to grow.

In closing, Dean Randall emphasized appreciation for Glen Schmidt's efforts to reach out within the Department and to reconcile conflict. The Department has had many successes and has attracted many students, creating an excellent foundation on which to build.

This memorandum of understanding is to be followed by regular letters of progress, upon request of the Graduate School, from the Chair of the Department of Operations and Information Systems. Letters will be submitted until all of the actions described in the preceding paragraphs have been completed. In addition, a three-year follow-up meeting may be scheduled during AY 2022-23 to discuss progress made in addressing the review recommendations.

Daniel A. Reed
Taylor R. Randall                                      _____
Rachel M. Hayes                                      David B. Kieda
Glen M. Schmidt                                      Dean, The Graduate School
David B. Kieda                                          January 5, 2021
Katharine S. Ullman