

MS in Data Analytic and Graduate Certificate in Data Analytics (contact: Virginia Lesser, Prof. & Chair Dept. of Statistics)

Inputs:

- The mission of the program, and its relationship and alignment with the mission of the academic college(s), Graduate School and university mission

Where: Section 2 of Cat I

What: Thoughtful response as to how new program supports mission of college, university and state.

There is no other general on-line program for working professionals in Oregon to prepare data analytic professionals to cope with big data (Their assertion). Thus, this program is connected to OSU strategic plan and signature areas of promotion of growth and social progress. Multidisciplinary nature of the MA (statistics, computer science) but concentrations in biology (for health sciences) will advance culture of collaboration. They assert that Oregon's needs are greater than most states for areas such as environmental monitoring but big data does not know state boundaries. The on-line program would be a resource for the whole state and NW region.

- Recruitment and enrollment trends of students

Where: Section 1 e, f, g, h; Section 4a (Need)

What:

Are the plans to recruit students, including under-represented students, adequate?
Does the market analysis in section 4 align with projected enrollment?

Beginning in 2017 they expect to award 10 M.S. degrees and 5 Graduate Certificates, increasing to 20 and 15 per year, respectively, over five-year period. Marketing and recruitment will be led by the E-campus Marketing and Enrollment Services team. Faculty will attend key national meetings to advertise the program and recruit students.

Unable to assess marketing analysis alignment with projected enrollment. No plan to recruit from Oregon or NW region (program noted as important in meeting state and regional need). No mention of recruitment of under-represented students.

- Admissions selectivity and other indications of selecting high quality students

Where: Section 1 e, h

What: Admissions requirements and process. What is basis for selection?

The minimum requirement for Graduate School admission plus successful completion of undergraduate statistics course at the level of ST351.

Mathematics to the level of calculus is recommended but not required.

Clarification needed on the exact mathematics requirement. "To the level of" is unclear.

- Level of financial support of students compared to peers

Where: Section 1 f, Section 7

What: Given expected number of students, have they adequately budgeted to support them.

Financial support not addressed in the proposal. Level of financial support for students in an online only program directed primarily at working professionals is not applicable.

- Curriculum strength

Where: Section 1c, Section 6

What:

Proposal meets minimum university requirements:

Master: <http://catalog.oregonstate.edu/ChapterDetail.aspx?key=39>

Make sure slash courses are annotated to ensure program meets minimum 50% rule.

Be leery of multiple new courses – If we presume that most departments are fully utilizing their faculty resources to deliver current programs, how are they going to develop and deliver new courses?

This is to be an online program exclusively, and all courses are new. Some are being developed by the Dept of Statistics and others by CS in the School of Electrical Engineering and Computer Science. Most of the statistics courses are modifications of existing courses. There is no information given about the status of the CS courses. (Two courses, CS 512 and CS 513, list CS 516 as prerequisite. Perhaps the new CS 511 is intended, as CS 516 is an existing course on Theory of Computation and Formal Languages. The course CS 511 appears to be at an elementary level. Is this appropriate for graduate credit?) It appears that all the statistics courses will use the R language. Will the students need to learn another language for the CS courses?

- Quality of personnel and adequacy to achieve mission and goals

Where: Section 1 I, Section 7

What: University guideline requires minimum of five professorial FTE to support a graduate program. Do they have adequate faculty and budget?

Ask for graduate faculty level of appointment?

Faculty listed in the statistics department involved with developing and teaching are 11 out of 12 faculty members listed in the professorial ranks and are full time. The 12th is a full time instructor. The quality of the faculty and FTE appear sufficient.

- Level and quality of infrastructure

Where: Section 1I, Section 7b

What: Are identified facilities and unique resources adequate?

The proposal makes only brief mention of the need “to increase computer capabilities for both on-campus and the anticipated students in this program.” How do they envisage that entering students will do the requisite computation? While R is freely available, is it anticipated that students will be able to install it on their personal computers without assistance? In section 5a it is said that students will have the tools to gather, analyze, and interpret data collected on scales of terabytes to petabytes. This will surely require a very substantial infrastructure if students are to practice even at the terabyte level. Will students have access to distributed computing resources?

Productivity:

- Publications or evidence of other scholarly work by faculty

Where: Section 1j, section 5d

What: Is the research productivity of the faculty appropriate to support the degree. That is, for PhD and MS degrees, we would expect a minimum of five FTE of research-active faculty directly supporting the program.

There is already a Master and PhD on-campus program in place. The proposed program will include 11 professorial rank faculty directly supporting the program. This appears more than adequate.

Outcomes and Impacts:

- Potential for placement and success of graduates

Where: Section 4

What:

Evidence of demand for the graduates.

The need for professionals to have training in data interpretation is well recognized. It appears that the program expects most students to already have employment in positions where additional data skills are needed.

Are there duplicate programs in Oregon? If so, what differentiates this program and how will they compete for students and placement opportunities?

The proposers say that the program is unique in Oregon, and that may be true in its full breadth. However, OHSU has programs in Health Information Management (online and on campus; graduate certificate and MS) and Bioinformatics and Computational Biology (on campus; MS and PhD) offered by the Department of Medical Informatics and Clinical Epidemiology:

<http://www.ohsu.edu/xd/education/schools/school-of-medicine/departments/clinical-departments/dmice/educational-programs/bcb.cfm>

These would appear to overlap significantly with the proposed Health Analytics area of concentration.

- Assurance of Learning

Where: Section 5

What: We prefer completion of the Graduate Program Assessment plan.

Ref: <http://gradschool.oregonstate.edu/faculty/program-assessment>

Graduate Master's Program Assessment Plan matrix is complete. No assessment plan for the certificate.