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## IT'S ELEMENTAL



# Dean's Office Changes



- Bruce serving as Dean until July 2021
  - Provost will reallocate space in Friendly Hall if we work on developing a Global Studies initiative
  - Some modest funds to support curricular development for student success
- Karen will switch into new role: CAS Dean for Faculty
- We will hire a new Divisional Dean for Humanities
- We will also be replacing the position held by Miriam Bolton in a modified role: Assistant Dean for Human Resources and Operations

# UO Authors, Book Talks



November 6, 2019, 5:00 pm:

Kristin Yarris, Associate Professor in International Studies

*Care Across Generations: Solidarity and Sacrifice in Transnational Families*

February 12, 2020, 5:30 pm:

Kirby Brown, Associate Professor of Native American Literatures

*Stoking the Fire: Nationhood in Cherokee Writing 1907-1970*

Both in the Knight Library Browsing Room



# Interdisciplinary Research Talks



November 1, 2019, 3:30 – 5:00 pm:

Richard Taylor, Professor of Physics

*Studying Nature's Patterns Across the Arts and Sciences*

December 2, 2019, 3:30 – 5:00 pm:

Diana Garvin, Assistant Professor of Mediterranean Studies

*The Bean in the Machine: The History of Coffee Under Facism*

January 9, 2019, 3:30 – 5:00 pm:

Vera Keller, Associate Professor of History

*Polymathy and the Origins of the Research University*

...and more to come! All in 202 Tykeson.



# Institutional Hiring Plan



- OTP will provide its guidance on the IHP process within the next week or so.
  
- Timeline:
  - **12/13**: Submissions due to CAS.
  - Between **12/13 and 1/2**: CAS reviews and contacts proposers with questions/feedback if applicable.
  - **1/13**: Final proposals due (incorporating feedback) due to CAS.
  - Between **1/14 and 2/7**: CAS meets with Heads Council and CAS Caucus for feedback on proposals.
  - **2/7**: CAS submits final ranked proposals to OTP.

# Data Science Undergraduate Program

**Wednesday, October 15, 2019**

**CAS Heads Meeting**

# What is Data Science?

- Interdisciplinary field focused on extracting knowledge from data
- **Big Data**
  - There is a great deal of it (**volume**)
  - Generated rapidly and continuously (**velocity**)
  - Taking many different forms and types (**variety**)
  - Originating from trustworthy sources (**veracity**)
- **Data Analytics**
  - Novel ways of extracting useful information from data
  - Math is important for data analytics, but it is not sufficient
  - Modern statistics and computation are crucial
- **Data Interpretation**
  - Making decisions based upon data analyses
  - Communicating findings for maximal impact
  - Ethical, legal and societal contexts



# Guiding Vision

The University of Oregon's BS in Data Science is a faculty-driven program, based on the work of the AY17/18 Data Science Initiative Visioning Committee.

- Builds upon the history of **interdisciplinary research** and **liberal arts** at UO
- Grows **new** research and educational opportunities
- Degree is strongly coupled to domain emphasis areas
- Mitigate **historical weaknesses** in methodologies of data science
- University-wide degree, incubated in CAS



# Implementing the Vision

The undergraduate major in Data Science is:

- Quantitative in nature, with a strong emphasis in domain areas **(DS+Domain)**
- Launching in fall 2020
- Begins with four exemplar domain areas: **Linguistics, Geography, Biology, Business Analytics**
- In AY20/21 we will formalize the process to add more domain areas

1 <sup>st</sup> Year (2020)	2 <sup>nd</sup> Year (2021)	3 <sup>rd</sup> Year (2022)	4 <sup>th</sup> Year (2023)	5 <sup>th</sup> Year (2025)	10 <sup>th</sup> Year (2030)
25 enrolled	100 incoming	150 incoming	200 incoming	200 incoming	400 incoming
	125 enrolled	250 enrolled	405 enrolled	490 enrolled	1000 enrolled
			25 graduating	100 graduating	200 graduating



# AAU Comparator Review

- Survey of activities among AAU institutions (plus OSU and PSU) conducted over Winter break 2018-2019
- Determined that 42 of the other institutions have some form of undergraduate (minor or BS/BA) and/or graduate (MS) degree in the data science realm
- The report from the visioning committee recommended a strong application domain aspect to any undergraduate degrees offered by the DSI
- This left 4 institutions to investigate more deeply: Iowa State University, UC Berkeley, UC San Diego, and University of Rochester

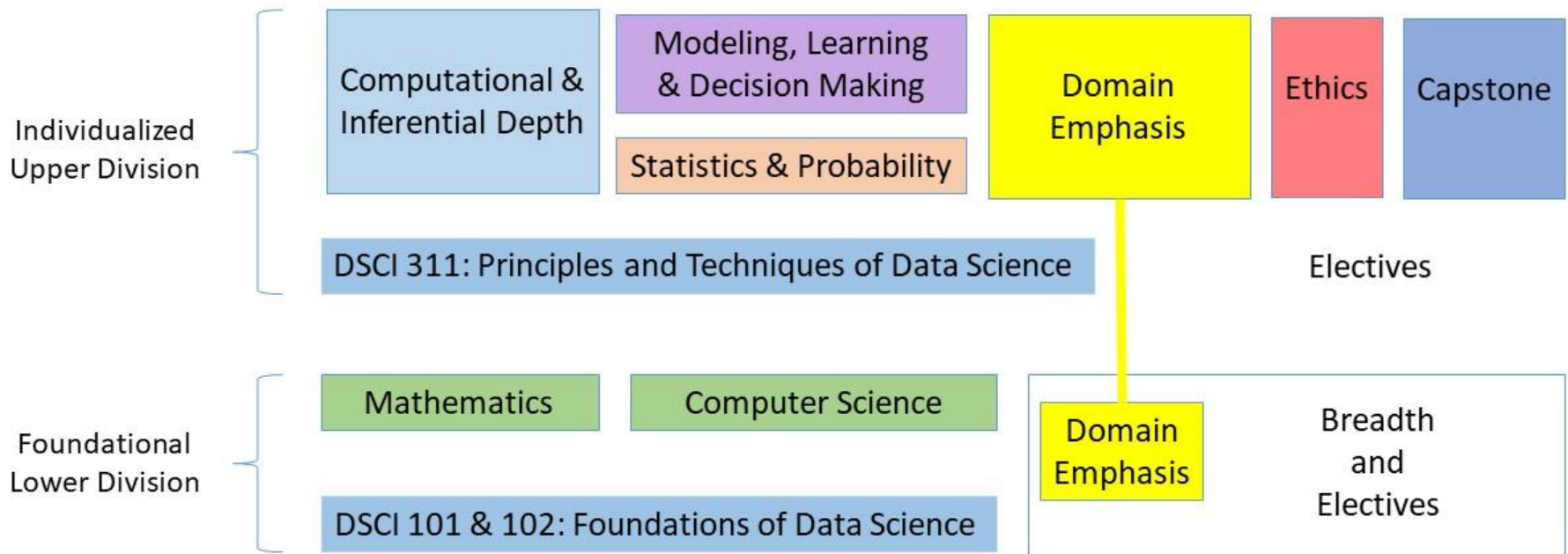
# Comparison Summary

Institution	Degrees offered	# of Domains involved	Other comments
Iowa State	BS/BA, minor, and certificate in data science	4	Senior project All science domains
Berkeley	BA in data science	25	<b>Very well thought out structure Science, social science &amp; humanities domains</b>
UCSD	BA and minor in data science	3	Senior project All science domains
Rochester	BS/BA in data science	8	Senior project All science and engineering domains

All of these degrees are quantitative data science degrees - i.e., significant math, computer science, statistics and probability emphases.

# The UO BS Data Science degree

## General Course Outline



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# Lower Division Courses

- Computer Science: CIS 210, 211, 212
- Mathematics: MATH 251, 252, 341, 342
- DSCI 101 & 102
  - 2-quarter sequence providing a broad, but shallow, introduction to data science
  - 101 is a core education course
- Domain core:
  - 2-3 courses that introduce a student to that particular domain
  - defined in conjunction with the domain-owning unit
  - should provide sufficient introduction to enable students to take domain electives

# Upper Division Courses

- DSCI 311 - covers three important areas (data handling in Python; dimensionality and principal components analysis; regression, classification and inference) in depth
- DSCI/MATH 345 - probability and statistics for data science
- DSCI/CIS 372 - machine learning for data science
- PHIL 423 - technology ethics
- Computational and Inferential Depth - select three courses from a curated list of relevant courses from computer science, mathematics, and other units that enable the student to deepen their knowledge in computation and inference
- DSCI 402 - Capstone project
  - apply knowledge and techniques to data from the emphasized domain to yield useful information within the domain
- Domain electives - select three courses (or four if student chooses not to do a Capstone project) from a curated list of courses within the domain in which data science knowledge and techniques are useful



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# BS Flight Path

## BS Flight Path

	Fall	Winter	Spring
Year 1	CIS 210	CIS 211 DSCI 101	CIS 212 DSCI 102 MATH 251
Year 2	Dom <sup>a</sup> 1 MATH 252	Dom 2 MATH 341	[Dom 3] MATH 342
Year 3	DSCI 311 DSCI/MATH 345	DSCI/CIS 372 PHIL 423	CID <sup>b</sup> 1
Year 4	Dom 4 CID 2	Dom 5 CID 3	Dom 6 DSCI 402 (or Dom 7)

<sup>a</sup>Dom = specialist domain

<sup>b</sup>CID = Computational and Inferential Depth

**N.B.** an additional course from the curated domain specialization list may be taken in place of the capstone senior project.



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# Questions?



# Adding another domain emphasis to the degree

- Each domain emphasis is very much like a track in a conventional degree offered by a unit - primary difference is that it is a profile through introductory and elective courses offered by a DIFFERENT unit
- A tentative process for adding another domain emphasis to the degree:
  - unit works with DS program to define domain core courses **and** agrees to allow BS Data Science students to enroll in these courses
  - unit works with DS program to define the set of (at least 4) domain elective courses; must document constraints on course choice in this set; must agree to allow BS Data Science students to enroll in these courses
  - unit provides domain-specific capstone project supervision for students electing to do the capstone project and who have emphasized that domain in their studies
  - unit works with the DS Program to eliminate unnecessary prerequisite courses for domain elective courses
  - unit participates in an annual update to the core and elective lists, usually in Winter quarter, for students to consider when enrolling for their courses in the subsequent academic year

# Faculty Merit Review

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- Deadline for submission to our office: NOV. 11
- Contact person: Anna Duncan ([apuhn@uoregon.edu](mailto:apuhn@uoregon.edu))
- Initial Steps
  - Read and follow your department's merit review policies
  - Get a submission deadline to your faculty very soon
- Review period
  - Follow your merit policies
  - Otherwise, we recommend the review period being from submission last time to submission this time

# Faculty Merit Review

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- Eligibility
  - Your list will include all eligible faculty
    - Acting Assistants are eligible TTF
    - Some TRP faculty are eligible and in the Career NTTF pool
  - Follow your merit policies for people who have not been here for the entire review period
    - If your policies are silent on this, we recommend only considering performance since they became a UO employee
    - Any employee here as of Dec. 31, 2019 is eligible

# Faculty Merit Review



- Merit for department heads
  - We will provide a spreadsheet for recording merit increases for TTF
  - Faculty members who are head during the review period will just have the default average for their data in the spreadsheet handed in by the head
  - Divisional deans will coordinate with chair of merit review committee to get committee's evaluation of the head
  - Ultimate merit for current and former heads will be determined by dean, taking into account department input.

# OA Merit Review



- Department heads' evaluations of OAs are due October 25.
- Must use the “structured narrative” form provided by HR for these reviews
- We will send out a form to department heads on October 26 to indicate their recommended merit raise for their OAs.
- Each department gets their own OA merit pool, even though many have just one OA

# Equity Raises?



- There will also be external equity raises
- Based on differences between UO and AAU comparator salaries
- Ongoing conversations between HR and United Academics about the methodology to determine these raises

# GTFF Bargaining and GE Strike Preparation

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- GTFF Bargaining Update
  - Mediation sessions continue
  - GEs can go on strike as soon as Monday, Nov. 4
  - A strike is very much a real possibility
  
- GE Strike Preparation
  - Academic continuity – finding a way to ensure that students continue to be taught and graded – is the number one priority
  - Department heads are not in UA bargaining unit and must do everything they can to ensure academic continuity. Same for OAs.

# GTFF Bargaining and GE Strike Preparation

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- GE Strike Preparation

- Divisional deans will be working with you to identify the greatest threats to academic continuity – primarily GE-led courses
- You may ask faculty members to help out, but here's the relevant UA CBA language:

“Any work previously performed by a striking employee assigned to a bargaining unit faculty member shall be considered an overload assignment. Bargaining unit faculty members will not unreasonably refuse to perform such work.”

- Divisional deans will also be working with Academic Continuity Teams



# GTFF Bargaining and GE Strike Preparation

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- Final thoughts
  - Please remind faculty and staff that they cannot ask GEs whether they plan to strike or not, or make any comments about the advisability of striking, etc.
  - You can also point people to the following for FAQs about GTFF bargaining:

<https://hr.uoregon.edu/employee-labor-relations/employee-groups-cbas/negotiation-updates/gtff-bargaining/administrative>