The Competition Challenge: Networks & Impact of Texas A&M’s Research

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Land-Grant, Sea-Grant, & Space-Grant Institution

128
Undergraduate Degree Programs

- Member of the Association of American Universities (AAU)
- Colleges and Schools: 19
- Master's degree programs: 200
- Doctoral degree programs: 100
- First professional degree programs: 5
- Study Abroad: 5,330 students to 105 countries each year
- Total Faculty: 3,750
- National Academies Faculty: 19
- Nobel Prize: 3
- Wolf Prize: 3
- Research expenditures*: $905 million+ in FY2017

300
Graduate Degree Programs

* #16 nationally, National Science Foundation, 2015
An intelligent organization is a learning organization that is skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect the new knowledge and insights (Garvin 1993).

http://choo.fis.utoronto.ca/fis/imio/IMIO1.html
Narratives & Public Universities

Land grant universities conduct research for the public good:

- Economic impact and innovation
- Public health
- Education
- Social justice
- Environmental sustainability

Association of Public and Land-grant Universities (APLU)

http://www.aaup.org/reports-and-publications/academe
Vice President of Research: Interdisciplinary Research at TAMU

WATER
What is being studied?
Co-occurrence (Keywords) Map of TAMU Water-Related Research: 2013-2020

Bibliometric Database: Dimensions
Information: Publications
Years: 2013-2020
Organizations: TAMU & TAM-HSC
Filter: “Water” in Title or Abstract
Water Publications Linked to Fields of Research

Bibliometric Database: Dimensions
Information: Publications
Years: 2013-2020
Organizations: TAMU & TAM-HSC
Filter: “Water” in Title or Abstract

The chart below shows the number of publications in each research category. (Criteria: see below)

- 09 Engineering: 1,293 publications
- 04 Earth Sciences: 917 publications
- 06 Biological Sciences: 629 publications
- 03 Chemical Sciences: 567 publications
- 05 Environmental Sciences: 438 publications
- 07 Agricultural and Veterinary Sciences: 301 publications
- 11 Medical and Health Sciences: 204 publications
- 02 Physical Sciences: 137 publications
- 01 Mathematical Sciences: 86 publications
- 14 Economics: 58 publications
- 08 Information and Computing Sciences: 55 publications
- 16 Studies in Human Society: 51 publications
- 12 Built Environment and Design: 36 publications
- 10 Technology: 34 publications
- 17 Psychology and Cognitive Sciences: 31 publications
- 15 Commerce, Management, Tourism an...: 14 publications
- 21 History and Archaeology: 13 publications
- 13 Education: 11 publications
- 20 Language, Communication and Culture: 2 publications
- 18 Law and Legal Studies: 1 publication

Source: https://app.dimensions.ai
Exported: September 10, 2020
Criteria: Text - ‘water’ in title and abstract; My groups is TAMU HSC or Texas A&M University; Publication Year is 2020 or 2019 or 2018 or 2017 or 2016 or 2015 or 2014 or 2013.

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Co-authorship Map of Water-Related Research: 2013-2020

Bibliometric Database: Dimensions
Information: Publications
Years: 2013-2020
Organizations: TAMU & TAM-HSC
Filter: “Water” in Title or Abstract
Co-authorship Map by Organization of Water-Related Research: 2013-2020

Bibliometric Database: Dimensions
Information: Publications
Years: 2013-2020
Organizations: TAMU & TAM-HSC
Filter: “Water” in Title or Abstract

Organizations of Coauthors
2022 Student Data Science Competition

The 2022 Data Science competition challenges participants to conduct a data-driven study that describes and visualizes Texas A&M research in ways that illuminate the patterns of collaboration across disciplines and can help Texas A&M to communicate about the significance and impact of our research.

Participants should consider how they would describe Texas A&M’s research to university leaders, state representatives, or funding agencies, or the public, to answer:

- How have patterns of research involving multiple disciplines evolved at Texas A&M?
- What have been the successes for Texas A&M research in solving complex problems, and which new collaborations across disciplines could strengthen Texas A&M’s response to emerging societal challenges?
- Where has Texas A&M research been represented in public discourse that sets priorities for progress, and where can this representation be increased?