

RON BUCKMIRE

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Education

Rensselaer Polytechnic Institute, Troy, NY	Mathematics	B.S.	1986
Rensselaer Polytechnic Institute, Troy, NY	Mathematics	M.Sc.	1992
Rensselaer Polytechnic Institute, Troy, NY	Mathematics	Ph.D.	1994

Professional Experience**Occidental College****August 2018 to present***Associate Dean of the College for Curricular Affairs and Director of the Core Program*

- Chair of the Academic Planning Committee, faculty governance committee responsible for *all* changes to the curriculum (course descriptions and/or pre-requisites) and academic programs (majors and minors) and oversees the process for recommendation to the Dean of the College and President of new tenure-track faculty searches
- Member of the leadership team for the Academic Affairs division (3 Associate Deans and 2 Assistant Deans and the Dean of the College/Vice-President for Academic Affairs)
- As Director of the Core Program, responsible for the first-year Cultural Studies Program and the College's general education program
- As Associate Dean, supervisor for 8 curricular and co-curricular departments (OxyArts, Center for Community-Based Learning, Institute for the Study of Los Angeles, Urban and Environmental Policy Institute, Undergraduate Research Center, Community Literacy Center, Writing Programs and the Core Program)

National Science Foundation**August 2016 to August 2018***Lead Program Director, NSF Scholarships in Science, Technology, Engineering and Mathematics (S-STEM), in Division of Undergraduate Education*

- Primary individual in charge of program to annually award \$80 million in grants to colleges and universities around the country to support associate, baccalaureate or graduate STEM degree attainment by low-income students with academic promise
- Managed team of approximately a dozen Program Officers and Administrative Staff
- Responsible for revision and publication of a new program solicitation, [NSF 17-527](#)
- Member of management team for the Division of Undergraduate Education (DUE)
- Led process to assure final award or decline decision made on ~400 S-STEM proposals in FY 2016
- Chaired the Mathematics disciplinary group (4 program officers) responsible for a budget of approximately \$6.5 million in awards annually to support improving undergraduate mathematics education nationwide
- Led process to search for two new (rotator) Mathematics program officers in DUE

Occidental College**August 2013 to Summer 2016***Full Professor of Mathematics* (promoted in Spring 2014)

- Taught classes in Mathematics (Differential Equations, Multivariable Calculus, Complex Analysis, Industrial Mathematics, Math as a Liberal Art, Junior Seminar and Senior Seminar)
- Taught in the Cultural Studies Program ([LGBT Rights in the Internet Era](#), Fall 2013)
- Organized group of STEM faculty to submit Occidental's first S-STEM proposal to NSF which became [DUE-1457943](#), COSMOS (Creating Opportunities in Science and Mathematics for Occidental Students) providing 64 scholarships (averaging \$8000 each) to low-income students who major in STEM disciplines
- Conducted research in the scholarship of teaching and learning of differential equations

Interim Department Chair (Spring 2015, Fall 2015, Spring 2016)

- Served as Chair of department with 7 tenured/tenure-track members and 6 full-time adjunct faculty
- Responsible for departmental leadership, representation and advocacy, adjunct faculty hiring and assessment, course scheduling and student dispute resolution

Member, Interim Dean of the College Search Committee (Spring 2016)

- Member of committee tasked with recommending replacement for Dean of the College/Vice President of Academic Affairs Jorge Gonzalez

Member, Academic Planning Committee (Fall 2014, Spring 2015, Fall 2015, Spring 2016)

- Member of committee responsible for stewarding the academic program of the College, through review of all course, major, minor, department and new faculty applications

Member, College-wide Assessment Committee (Fall 2014, Spring 2015, Fall 2015, Spring 2016)

- Tasked with assisting the Director of Institutional Research and Assessment with aspects of her job related to assessment and accreditation

Chair, Faculty Affirmative Action Committee (Fall 2014, Spring 2015, Fall 2015, Spring 2016)

- Led process to standardize AA policies and procedures in all tenure-track searches
- Brought in consultant (Dr. Christine Littleton from UCLA Law School) to address faculty and raise awareness of issues involved in diversifying the faculty

Member, Chief Diversity Officer Planning Committee (Summer 2015, Fall 2015)

- Member of committee which proposed the creation of a Chief Diversity Officer/Vice President for Inclusion and Equity position

Member, College Counsel Search Committee (Summer 2014)

- Member of committee which resulted in the selection of Leora Freedman as Occidental College's General Counsel

National Science Foundation**August 2011 to August 2013***(Rotator) Program Officer* in Division of Undergraduate Education

- Made award or decline recommendations on proposals submitted to the S-STEM, STEM Talent Expansion Program (STEP), Math and Science Partnerships (MSP) and Transforming Undergraduate Education in STEM (TUES) programs
- Represented the Directorate, Division and Agency at various events internally and external on issues of undergraduate mathematics education
- Co-founded the NSF LGBTQ+ & Allies Employee Resource Group (October 2011)
- Gave Keynote Presentation at NSF's Inaugural LGBT Pride Celebration (June 2013)

Occidental College**May 2005 to July 2010***Department Chair*

- Led department with 13 FTE (7 tenure-track, 6 non tenure-track) faculty

- Responsible for assigning courses, designing course schedules, managing course enrollment and departmental assessment
- Acted as primary point of contact for student feedback on faculty and department performance
- Acted as primary representative of the Mathematics department to the College
- Organized annual departmental retreats and initiated and implemented curricular changes which led to a dramatic increase in numbers of mathematics minors

Professional Service

- *Elected Officer.* [SIAM Activity Group on Education](#), Program Director. January 2019-December 2020.
- *Presidential appointee.* Society for Industrial and Applied Mathematics (SIAM) Membership Committee, Chair. January 2020 to December 2022.
- *Director appointee.* Mathematical Sciences Research Institute Human Resources Advisory Committee. April 2019 to March 2022.
- *Presidential appointee.* Society for Industrial and Applied Mathematics (SIAM) [Education Committee](#). January 2015 to January 2020.
- *Presidential appointee.* Society for Industrial and Applied Mathematics (SIAM) [Diversity Committee](#). July 2014 to present.
- *Reviewer.* U.S. Department of Education, Office of Postsecondary Education (OPE). 2014 and 2015.
- *Reviewer.* National Science Foundation, Division of Mathematical Sciences (DMS). 2015.
- *Reviewer.* National Science Foundation, Division of Undergraduate Education (DUE). Regularly (at least once per year) since 1998.
- *Editor.* Community of Differential Equations Educators (CODEE) Journal. July 2016 to July 2019.
- *Member.* Editorial Board of *Numerical Methods for Partial Differential Equations* (NMPDEs). July 2010 to present.
- *Mentor for Predoctoral Students.* National Alliance for Doctoral Studies in Mathematical Sciences. June 2014-present.
- *Volunteer Judge.* UCLA Law School's Williams Institute Moot Court Competition. At least 6 times since its inception in 2005.

Selected Publications

1. K. Basu, T. Basu, **R. Buckmire** and N. Lal. "[Predictive Models of Student College Commitment Decisions Using Machine Learning](#)." *Data*, Volume 4, Issue 2, (Article 65) June 2019.
2. R. Bryant, **R. Buckmire**, L. Khadjavi and D. Lind. "[The Origins of Spectra, an Organization for LGBT Mathematicians](#)." *Notices of the American Mathematical Society*, Vol. 66, No. 6, June/July 2019, pp. 875-882.
3. **R. Buckmire**. "[A Survey of Significant Developments in Undergraduate Mathematics Education over the Past Decade](#)." *Notices of the American Mathematical Society*, Vol. 66, No. 1, January 2019, pp. 46-51.
4. **R. Buckmire**, TJ Murphy, John Haddock, and Sandra Richardson. "[The National Science Foundation Has Resources to Help You Improve the Teaching and Learning of Undergraduate Mathematics](#)." AMS Blog on Teaching and Learning Mathematics, November 14, 2016.
5. D.A. Edwards, **R. Buckmire** and J. Ortega-Gingrich*. "[A Mathematical Model of Cinematic Box-Office Dynamics with Geographic Effects](#)." *IMA Journal of Management Mathematics*, Volume 25, Issue 2, 2014, pp. 233-257.
6. **R. Buckmire**, "Application of a Mickens Finite-Difference Scheme to the Cylindrical Bratu-Gelfand Problem." *Numerical Methods for Partial Differential Equations*, Vol. 20, No. 3, (May 2004), pp. 327-337.

*indicates undergraduate student co-author