# Andrew Hamilton Administrative Curriculum Vitae

341 Martin Luther King Jr Dr. | Greensboro, NC 27406 (480) 252-5919 | ahamiltonphd@protonmail.com

#### 1. Education

Ph.D., Philosophy (Science Studies), University of California, San Diego, 2005 M.A., Philosophy, Boston College, 1999 B.A. Philosophy, Berea College, 1996

# 2. Academic Appointments

- 2022-Present. Associate Vice Provost for Academic Affairs and Dean of Undergraduate Studies, University of North Carolina at Greensboro
- 2019–2022. Associate Vice Provost for Student Success and Dean of Undergraduate Studies, University of North Carolina at Greensboro
- 2016-2019. Associate Dean for Student Success, College of Natural Sciences and Mathematics, University of Houston
- 2013-2016. Associate Dean for Student Success, The Honors College, University of Houston
- 2012–2013. Executive Director for Academic Innovation, Office of the Provost, University of Houston
- 2006-2012. Assistant Professor of Life Sciences, Arizona State University
- 2008-2012. Associate Director, International Institute for Species Exploration, Arizona State
- 2005-2006. Visiting Lecturer, University of California, Davis
- 2003-2005. Adjunct Lecturer, University of San Francisco
- 2000-2001. Visiting Lecturer (Fulbright), University of Dar es Salaam, Tanzania

## 3. Other Relevant Appointments

- 2017-2023. Founding Member, University Council (Board of Trustees), Sampoerna University, Jakarta, Indonesia
- 2017-2023. Member, Cambridge Assessment International Education Eastern Regional Advisory Council
- 2012-2014. Senior Sustainability Scientist, Wrigley Global Institute of Sustainability, Arizona State University
- 2009-2012. Director, Biology Graduate Programs, Arizona State University
- 2010-2017. At-Large Member, Alumni Executive Council, Berea College (including a term as council President)

# 4. Professional Background

Associate Vice Provost for Academic Affairs and Dean of Undergraduate Studies, UNC Greensboro (2022-Present): UNCG is the most diverse public research university in North Carolina, and is nearly unique in the US in having eliminated graduation-rate disparities between black and white students. UNCG is a Minority-Serving Institution, enrolling a majority-minority student body, a large proportion of community college transfer students, and large numbers of rural, Pell eligible, and first-generation students. UNCG is ranked first in North Carolina and among the top 15 in the US for Social Mobility by US News & World Report.

As AVPAA and Dean, I oversee the University Teaching and Learning Commons, International Studies Center, and UNCG's Middle College, a highly rated public magnet school. In this role I also lead efforts in academic affairs to respond and adapt to the UNC System's new performance-based funding model, which includes working with campus deans to define key performance indicators, set targets, and form plans for achieving outcomes consistent with funding goals. I also have oversight for the University's general education program and summer session. In this role I oversee a budget of approximately \$8,000,000 annually, not counting scholarships.

Associate Vice Provost for Student Success and Dean of Undergraduate Studies, UNC Greensboro (2019-2022): For three years, I led the Division of Student Success and the Office of the Dean of Undergraduate Studies, supervising a staff of 53 (not counting student workers) and annual expenditures of \$5.2 million, exclusive of scholarships. The Division houses five departmental units led by directors, an assistant dean, and an assistant vice provost. These units offer academic advising, scholarship programs, academic and psycho-social support, orientation, educational opportunities programs, supplemental instruction, tutoring, and the University's first year experience. In my role as Dean, I also have administrative oversight for the general education program and undergraduate academic policy, including appeals.

## Significant Accomplishments:

- Redesign and reorganization of five living/learning communities, realizing significant reductions in expenditures while maintaining quality.
- Design and implementation of comprehensive training for department heads and chairs, in coordination with the teaching and learning center.
- Redesign of general education scheduling process, resulting in significant reduction (~6%) in instructional expenditures and more flexibility for students.
- Leadership (as PI) of the \$640,000 UNCG <u>Frontier Set</u> initiative, funded by the Bill and Melinda Gates foundation. This work established a new Math Pathways program at UNCG under my leadership, brought new success efforts for transfer students, and supports the award-winning CHANCE program, which brings 120 Latinx high school students to our campus for a week-long summer camp each year.
- Leadership (as Co-PI) of a \$3.5 million NSF grant proposal that brings five North Carolina universities together to form a new Louis Stokes Alliance for Minority Participation that will support hundreds of STEM students from low-income and under-represented minority backgrounds over the next five years and beyond at five North Carolina universities.
- Implementation of a new, competency-based general education curriculum, including crosswalking the old curriculum with the new one, designing course proposal processes, working with the Registrar to update degree-plan coding, supporting course-development at the department level, and defining workflows for transfer course evaluation and student petitions for substitutions and exceptions. This work requires a great deal of careful attention to department-level considerations, especially including credit-hour distributions across units.
- Leadership on large parts of the institution's COVID-19 response as it relates undergraduate academics, including the strategic use of HEERF funds and working with

Faculty Senate and student leadership on revised calendars and academic relief packages. These efforts clearly led to better retention, as well as to holding the line on grade performance in a difficult learning environment.

- Design and implementation of the <u>30 Hour Challenge</u>, a program designed to intensify enrollment, improve grades, and decrease time to graduation.
- Brought a focus on data to student success at UNCG, including SCH, grade-distribution, and cohort-retention dashboards that make information available on demand for deans, department heads, and directors.

Associate Dean for Student Success, College of Natural Sciences and Mathematics, University of Houston (2016–2019): According to the 2018 US News & World Report rankings, UH's 46,000 students comprise the most diverse population of any public Research I university in the nation. UH holds federal designations as a Hispanic-Serving Institution (HSI) and an Asian American and Native American Pacific Islander-Serving Institution (AANAPISI). The College of Natural Sciences and Mathematics enrolls 4,500 undergraduates (including 1,500 transfer students) and approximately 1,000 graduate students in six departments. Expenditures for the College are \$95,000,000 annually. I was charged with oversight and strategic planning for undergraduate student success in the College.

Responsibilities: I supervised a staff of 10, and had primary budget authority for ~\$2 million in expenditures annually. I oversaw curricula, assessment and reporting, supplemental instruction, scholarships, assessment, enrollment management, academic integrity, and academic advising for the College.

#### Significant Accomplishments:

I brought a collaborative, data-focused, and student-centered approach to undergraduate programs at the college level, which resulted in:

- A Calculus I initiative that reduced the proportion of Ds, Fs, and Ws in Calculus I by half.
- Curricular re-structuring that emphasized progress toward graduation and the successful completion of predictive, benchmark courses, rather than credit-hour accumulation.
- Enrollment management resulting in larger incoming classes that were both better
  prepared academically and more ethnically diverse. In three recruiting cycles, we saw
  36% growth and moved mean SAT scores from the 83rd percentile to the 94th percentile.
- A new, grant-funded STEM access program for high achieving high school students from low quality schools, who would otherwise not be admitted to STEM majors at UH.
- An aggressive and successful plan to secure external funding for student programs, with special attention to ethnic and economic diversity, resulting in in NSF IUSE, S-STEM, HSI, and Louis Stokes Alliance for Minority Participation grants, totaling more than \$3 million.
- Degree-program level articulation agreements with community college partners that addressed disparities in academic performance between transfer and 'native' students.
- Restructuring of the College-level academic advising office to support persistence and progress-toward-graduation efforts.
- Active building of co- and extra-curricular engagement programming, as well as student-facing events that contributed to a sense of community in the College.

- Redesign of the College Academic Warning program, with special attention to student mental illness awareness and treatment.
- Election to Phi Kappa Phi (2017), winning the Phi Beta Delta award for New and Innovative Program (2018), and winning the UH Team Teaching Excellence Award as team lead (2019).

Because of these structural changes and new resources, Natural Sciences and Mathematics saw the highest rates of persistence and semester credit hour completion in the College's forty-year history, as well as the lowest proportion of students on Warning and Probation.

Associate Dean for Student Success, The Honors College, University of Houston (2013-2016): UH Honors, which enrolls 2,500 students, is ranked among the top ten honors colleges and programs in the nation by *Inside Honors*. As the only full-time Associate Dean in Honors, I had broad responsibilities including managing staff, curricular oversight, assessment and reporting, fund raising, and strategic planning.

# Significant Accomplishments:

- Empirical tracking of the effects of admissions procedures on student performance that resulted in review and re-assessment of admissions requirements.
- Founded and directed the highly successful and award winning UH Bonner Program (service learning)..
- Secured approximately \$500,000 in new scholarship investments from the Provost's Office
  to support service learning, along with \$200,000 in federal support for staffing of service
  projects.
- Launched an award-winning research-abroad program that has become a model university-wide.
- Won UH System Regents Award for Academic Excellence (2016).

Executive Director for Academic Innovation, Office of the Provost, University of Houston (2012-2013): This position oversees the eight staff members who operate the University's learning management systems, as well as coordination and training University-wide for instructional designers. In this role I worked closely with the Faculty Senate, the Center for Teaching and Learning, and Institutional Research to identify curricular problems, and provide resources for faculty development, especially around instructional technology and pedagogical innovations.

### Significant Accomplishments:

- Rolled out of Blackboard Analytics, to measure effectiveness of the Blackboard LMS and student engagement with it.
- Redesigned the University's instructional grants program to include Center for Teaching and Learning Review and the use of instructional designers to redesign courses.
- Design and construction of two new active learning classrooms.
- Oversight of construction of new testing center.
- Collaborative restructuring of the Center for Teaching and Learning and transition to the Center for Faculty Engagement and Development.
- Named to inaugural cohort of the EduCause Breakthrough Models Academy (2012).

# Assistant Professor, School of Life Sciences, Arizona State University (2006-2012):

Arizona State University is a public Research I university enrolling just over 52,000 students on its Tempe campus. The School of Life Sciences enrolls almost 4,000 undergraduate majors and more than 400 graduate students. The School of Life Sciences is typically ranked about the top 20 biology units in the country in annual research expenditures. In this role I had responsibilities for teaching, research, and service. I also directed the Biology graduate programs.

## Significant Accomplishments:

- Secured NSF grants to fund my research and that of my postdoctoral student
- Named Director of Biology Graduate Programs (2009-2012)
- Named Associate Director of International Institute for Species Exploration, a university research center (2007–2012)
- Appointed Senior Sustainability Scientist, Wrigley Global Institute of Sustainability (2012– 2014)
- Re-designed a large introductory biology course, including the building of an online version and an active learning version (with colleague Jim Elser).
- Re-designed introductory biology labs (with colleague Jim Elser).
- Nominated for five teaching awards (three at the university level and two at the college level).

## 5. Grants Awarded (\$13.14 Million)

- 2022. Principal Investigator, UNCG McNair Grant (\$1,357,000)
- 2021-2022. Co-Principal Investigator. "Mountains to Sea: North Carolina Louis Stokes Alliance for Minority Participation" NSF LSAMP (\$3,500,000)
- 2020. Principal Investigator. TRiO SSS and SSS STEM-H grants (\$3,000,000)
- 2020. Principal Investigator. "UNCG Frontier Set" Bill and Melinda Gates Foundation (\$640,000)
- 2020. Principal Investigator. "UNCG GEAR-UP Success Coach Partnership" (\$378,000)
- 2019. Co-Principal Investigator. NSF HSI (IUSE) Grant, "Building Capacity: Integrated Interventions to Improve Undergraduate Student Success in STEM" (HRD: 1832534; \$1,499,000)
- 2019. Principal Investigator. NSF Houston Louis Stokes Alliance for Minority Participation, "STEM Pathways and Research Alliance" (Grant Number HRD-1911310, via Texas Southern University, \$949,995. Total grant value \$4,000,000.)
- 2018. Co-Principle Investigator. NSF S-STEM, "Engineering/NSM Student Success Program Serving Low-Income Academically Talented Students" (Grant Number DUE-1742579; \$1,000,000)
- 2017. Principle Investigator. NSF HSI STEM Grant, "Understanding and Improving Readiness and Student Transitions" (Grant Number DUE-1748533; \$100,000)
- 2016. Principle Investigator. NSF "Houston Louis Stokes Alliance for Minority Participation: Senior Alliance Grant" (via Texas Southern University, NSF Grant Number HRD-1407736; \$300,000. Total grant value \$4,000,000.)
- 2015. Principle Investigator (Supervisor). Corporation for National and Community Service VISTA Grant, "Creating Lasting Change in Houston's Third Ward." (Grant Number 16VSWTX001, \$200,000)

- 2015. Co-Principle Investigator. UH Teaching Innovation Program Grant, "Fostering the Narrative Imagination through Interdisciplinary Study. (\$18,000)
- 2010. Principal Investigator, with Ph.D. student Johnny Winston. National Science Foundation Grant: "DDIG: The Science of the Endangered Species Act: The Committee on Rare and Endangered Wildlife Species, 1964-1973" (Grant Number SES-0957131; \$9,984)
- 2009. Principal Investigator. National Science Foundation Grant: "Standard Research: Biological Systematics in Historical and Conceptual Context" (Grant Number SES 0925827; \$104,514)
- 2008. Principal Investigator, with postdoctoral student David Steffes. National Science Foundation Grant: "Postdoctoral Fellowship: History and Philosophy of Ecology." (Grant Number SES-08080978; \$84,000)
- **6. Publications** [33 with 2,786 Citations; h-index of 15] *Books* [1]
- 1. 2013. *Hamilton, A.,* ed. *The Evolution of Phylogenetic Systematics*. University of California Press.

## Refereed Articles [18]

- 2. 2018. Smith, B., \*Mathews, M. \*Reed, S. N, \*Tran, Michelle Q. N., \*Mousa, C., \*Lozano, M., Rodriguez, E. S., *Hamilton, A.*, and \*Mathews, J. T. "The Development of the WISE (Writing to Inspire Successful Education) Program: A University-School Collaboration." *Journal of Middle Level Education in Texas*, 5:1.
- 3. 2018. Pirtle, Z., Odenbaugh, J., *Hamilton, A.*, and Szajnfarber, Z. "Engineering Model Independence: A Pluralist Strategy to Encourage Independence Among Models." *Techné: Research in Philosophy and Technology*, 22:2.
- 4. 2018. Hamilton, A. "The Need for Student Engagement." New Directions for Teaching and Learning, 154: 21-32.
- 5. 2013. Hamilton, A. "The Teachable Moment: Rethinking the Large Lecture." Change: The Magazine of Higher Learning, 3: 49-51. (Reprinted in Margaret Miller, Ed., College Teaching and Learning for Change. New York: Routledge.)
- 6. 2012. Wheeler, Q. D., Coddington, J., Gostony, T., *Hamilton, A.*, Larimer, R., Polaszek, A, Schauff, M., and Solis, M. A. "Nomenclatural Benchmarking: The Roles of Digital Typification and Telemicroscopy." *Zookeys*, 209: 193–202.
- 7. 2012. Wheeler, Q. D., Knapp, S., Stevenson, D. W., Stevenson, J. W., Blum, S. D., Boom, B. M., Borisy, G. G., Buizer, J. L., de Carvalho, M. R., Donoghue, M. J., Gerson, E. M., Graham, C., Graves, P., Graves, S. J., Guralnick, R. P., *Hamilton, A.*, Hanken, J., Lipscomb, D. L., Lovejoy, T. E., Miller, H., Miller, J. S., Naeem, S., Novacek, M. J., Page, L. M., Platnick, N. I., Raven, P. H., Solis, M. A., Valdecasas, A. G., van der Leeuw, S., Vermeulen, N., Vogel, J., Wilson, E. O., and Woolley, J.

<sup>\*</sup> Indicates student co-author.

- B. "Charting the Biosphere: Exploring Species to Understand the Origin, Organization, and Sustainability of Biodiversity." *Systematics and Biodiversity*, 10: 1-20.
- 8. 2011. *Hamilton, A.* "From Types to Individuals: Hennig's Ontology and the Development of Phylogenetic Systematics." *Cladistics*, 27: 1-11.
- 9. 2011. Pearson, D., *Hamilton, A.*, and Erwin, T. "Recovery Plan for the Endangered Taxonomy Profession." *Bioscience*, 61: 58-63.
- 10. 2011. Chew, M. and *Hamilton, A.* "The Rise and Fall of Biotic Nativeness: A Historical Perspective." In *Fifty Years of Invasion Ecology: The Legacy of Charles Elton*. D. Richardson, ed. Oxford: Wiley-Blackwell.
- 11. 2010. \*Pirtle, Z., \*Meyer, R., and *Hamilton, A*. "What Does It Mean When Climate Models Agree? A Case For Assessing Independence Among General Circulation Models." *Environmental Science and Policy*, 13: 351-361.
- 12. 2009. Haber, M. H. and *Hamilton, A.* "Clade Selection and Levels of Lineage: A Reply to Rieppel. *Biological Theory*, 4: 214-218.
- 13. 2008. *Hamilton, A.* and Wheeler, Q. D. "Taxonomy and Why History of Science Matters for Science: A Case Study." *Isis*, 99: 331-340.
- 14. 2007. *Hamilton, A. "*Laws of Biology, Laws of Nature: Problems and (Dis)solutions." *Blackwell Philosophy Compass*, 2: 592-610.
- 15. 2007. Elser, J. J. and *Hamilton, A.* "Stoichiometry and the New Biology: The Future is Now." *PLoS Biology*, 5: 181–183. Translated into Estonian as Elser, J. J. and *Hamilton, A.* 2008. "Stöhhiomeetria ja uus Bioloogia." *Akadeemia*, 7: 1505–1516.
- 16. 2006. *Hamilton, A.*, and Haber, M. H. "Clades are Reproducers." *Biological Theory*, 1: 381–391.
- 17. 2005. Haber, M. H. and *Hamilton, A.* "Coherence, Consistency, and Cohesion: Clade Selection in Okasha and Beyond." *Philosophy of Science*, 72: 1026-1040.
- 18. 2005. *Hamilton, A.* "Plato's Theory of Forms Reconsidered: Radical Purity in *Philebus* 11a-15b?" *Ancient Philosophy*, 25: 349-363.

#### Book Chapters [9]

- 19. 2013. *Hamilton, A.* and Fewell, J. "Groups, Individuals, and the Transition to Sociality." In *From Groups to Individuals: Perspectives on Biological Associations and Emerging Individuality*. F. Bouchard and P. Huneman, eds. MIT Press.
- 20. 2013. *Hamilton, A.* "Historical and Conceptual Perspectives on Modern Systematics: Groups, Ranks, and the Phylogenetic Turn." In *The Evolution of Phylogenetic Systematics*. A. Hamilton, ed. University of California Press.

- 21. 2013. Wheeler, Q. D. and *Hamilton, A.* "The New Systematics, The New Taxonomy, and the Future of Biodiversity Studies." In *The Evolution of Phylogenetic Systematics*. A. Hamilton, ed. University of California Press.
- 22. 2010. Haber, M. H., *Hamilton, A.*, Odenbaugh, J. O. and Okasha, S. "Philosophy of Biology." In *Philosophy of the Special Sciences*, F. Allhoff, ed. Oxford: Wiley-Blackwell, 185-212.
- 23. 2009. *Hamilton, A.*, Haber, M. H., and \*Smith, N. R. "Social Insects and the Individuality Thesis: Cohesion and the Colony as a Selectable Individual." In *Organization of Insect Societies: From Genome to Sociocomplexity*. J. Gadau and J. Fewell, eds. Harvard University Press, 572-589.
- 24. 2009. *Hamilton, A.* "Toward a Mechanistic Evo Devo." In *Form and Function in Evolutionary Development, M.* Laubichler and J. Maienschein, eds. Cambridge: Cambridge University Press, 213-224.
- 25. 2009. *Hamilton, A.* "Letter to Linnaeus." In *Letters to Linnaeus*, Q. D. Wheeler and S. Knapp, eds. London: The Linnean Society of London, 87-91.
- 26. 2007. Bechtel, W. and *Hamilton, A.* "Natural, Behavioral, Social Sciences and the Humanities: Reductionism and the Unity of the Sciences." In *General Philosophy of Science: Focal Issues*. Theo Kuipers, ed. North Holland Press, 377-430.
- 27. 2006. Cartwright, N., Alexandrova, A., Efstathiou, S., *Hamilton, A.*, and Muntean, I. "Philosophy of Science: Laws." In *Oxford Handbook of Contemporary Philosophy*, Frank Jackson and Michael Smith, eds. Oxford: Oxford University Press: 792-818.

# Invited Articles [3]

- 28. 2011. *Hamilton, A.* and \*Dimond, C. "Groups, Individuals, and Evolutionary Restraints: The Making of the Contemporary Debate Over Group Selection." *Biology and Philosophy.* 27: 299-312.
- 29. 2009. Hamilton, A. and Wheeler, Q. D. "Reply to Wilson et al." Isis. 100: 117-118.
- 30. 2005. Fagan, M., Forber, P., García Deister, V., Haber, M. H., *Hamilton, A.*, Yamashita, G. "Meeting Report: First ISHPSSB Off-Year Workshop." *Biology & Philosophy*, 20: 927-929.

#### Reviews [2]

- 31. 2006. *Hamilton, A*. Review of Ernst Mayr's What Makes Biology Unique? *Philosophy of Science*, 73: 255-257.
- 32. 2002. *Hamilton, A.* "Wonderful Life: On Stephen Jay Gould and Ourselves." *History of Science Society Newsletter*, 31: 3, p. 4.

## Reports [1]

33. 2020. Kladec, A. Yoon, T., Aydin, N., Charlton, J., Dickson, K.L., *Hamilton, A*, Loft, B., Peetz, R., Raynor, S., and Teclezghi, B. *Transformation Advisory Group: Letters from the Field.* American Association of State Colleges and Universities.

## 7. Nominations and Awards

- 2019. University of Houston Team Teaching Excellence Award, as team lead (\$30,000)
- 2018. New and Innovative Program Award, UH chapter of Phi Beta Delta (team award for Galápagos study abroad)
- 2017. Elected by Peers to Membership in the UH Chapter of Phi Kappa Phi
- 2016. UH System Regents' Award for Academic Excellence (for the Bonner Program)
- 2013. Member, EduCause/Next Generation Learning Challenges Inaugural Breakthrough Models Academy
- 2012. Nominee, Centennial Professorship, Arizona State
- 2011. Finalist, Provost's Faculty Achievement Award for Excellence in Undergraduate Instruction, Arizona State
- 2010. Nominee, CLAS Teaching Award at Arizona State
- 2010. Nominee, Centennial Professorship, Arizona State
- 2009. Nominee, CLAS Teaching Award, Arizona State