

Tom Collins

Curriculum vitae

August 2018

Department of Architecture, AB 402
College of Architecture & Planning
Ball State University
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EDUCATION

- 2015 Ph.D.
University of Oregon, Department of Architecture
- The Influence of Design, Operations, and Occupancy on Plug Loads in Student Housing*
<https://scholarsbank.uoregon.edu/xmlui/handle/1794/19258>
- Dr. Alison Kwok (chair), G.Z. Brown, Howard Davis, & Dr. Deborah Olson
- 2010 M.ARCH
University of Oregon, Department of Architecture
- Behavior, Comfort, and Energy Consumption: In Student Residence Halls*
<https://scholarsbank.uoregon.edu/xmlui/handle/1794/10732>
- Dr. Alison Kwok (chair), Dr. Mark Gillem, Fred Tepfer
- 2002 B.ARCH
Rensselaer Polytechnic Institute, School of Architecture
- 2002 B.S., Building Sciences
Rensselaer Polytechnic Institute, School of Architecture
- 2000 Tongji University, RPI China Studies Program
- 1999 Czech Technical University, RPI Vienna/Prague Summer Studies Program

PROFESSIONAL CREDENTIALS

- 2007 Registered Architect, Commonwealth of Massachusetts, License # 20525
- 2005 LEED Accredited Professional (AP), USGBC

ACADEMIC APPOINTMENTS

- 2015- Ball State University, Department of Architecture
Assistant Professor
- 2008-15 University of Oregon, Department of Architecture
Graduate Teaching & Research Fellow
- 2004-08 Boston Architectural College
Adjunct Instructor

PUBLICATIONS

Book Chapters

1. Collins, T. (Forthcoming). Chapter 1, Design Process: RMI Innovation Center Case Study; Chapter 12, Active Climate Control: Ball State University Ground Source Heat Pump Case Study; Chapter 31, Elevators (formatting & edits); Chapter 32, Escalators & Other Mechanized Circulation Systems (formatting & edits). In W. Grondzik & A. Kwok, *Mechanical and Electrical Equipment for Buildings, 13th Edition*. Hoboken, New Jersey: Wiley.
2. Collins, T. (2018). Chapter 2, The Studio: The Integrated Design Process: RMI Innovation Center Case Study; Chapter 5, Case Studies: "Council House 2", "Centre for Mathematical Sciences", "RMI Innovation Center", & "Exploratorium at Piers 15 & 17." In A. Kwok & W. Grondzik, *The Green Studio Handbook: Environmental Strategies for Schematic Design, 3rd Edition*. Oxford, UK: Architectural Press.

Conference Proceedings

1. Collins, T. (Forthcoming). EQUALS - Environmental quality in active learning spaces. Proceedings of ARCC 2018 Conference, Philadelphia, 16-19 May.
2. Collins, T., Grondzik, W. (Forthcoming). Three courses/four typologies: experiences with the 2017 Race to Zero Competition. Proceedings of RBDCC 2018 Conference. State College, PA. 28 February – 2 March.
3. Bollo, C., Collins, T. (Forthcoming). The power of words: Grounded Theory research in architecture and design. Proceedings of ARCC 2017 Conference, Salt Lake City, 14-16 June.
35% Acceptance Rate
4. Collins, T., Hegli, T. (2017). Modelling architecture design studio on practice-based integrated "ways of working." Proceedings of EAAE ARCC International Conference – Lisbon 2016, Lisbon, 15-18 June.
25% Acceptance Rate
ISBN: 978-1-138-02966-8

5. Collins, T., Kwok, A., & Duluk, S. (2014). Visible ventilation: validating & illustrating the performance of a hybrid ventilation system in the United States. *Proceedings of 13th International Conference on Indoor Air Quality and Climate 2014*. Paper presented at the Indoor Air 2014 conference, Hong Kong, 7-12 July (pp. 486-493). NY: Curran.
ISBN: 978-1-63439-731-5
6. Collins, T. (2013). Campus buildings & student engagement in institutional sustainability efforts. In C. Jarrett, N. Senske, & K. Kim (Eds.), *The Visibility of Research*. Paper presented at the 2013 ARCC Spring Research Conference, Charlotte, NC, 27-30 March (pp. 442-447). Charlotte: UNC
ISBN: 978-0-615-78533-2
<http://www.arcc-journal.org/index.php/repository/article/view/199/153>
30% Acceptance Rate
7. Anderson, M., Collins, T., & Kwok, A. (2013). Zero net energy education: a survey. In *Proceedings of 42nd ASES Annual Conference*. Paper presented at the American Solar Energy Society (ASES) Solar 2013 Conference, Baltimore, MD, 16-20 April. Boulder: ASES.
http://proceedings.ases.org/wp-content/uploads/2014/02/SOLAR2013_0256_final-paper.pdf
8. Collins, T., Rajkovich, N., Kwok, A., & Bollo, C. (2012) Using case studies to navigate a course to zero net energy. In M. Brambley & C. Regnier (Eds.), *Fueling Our Future with Efficiency*. Paper presented at the ACEEE 2012 Summer Study on Energy Efficiency in Buildings, Monterey, CA, 16 August (10-53-10-64). Washington D.C.: Omnipress.
<http://freepdfs.net/using-case-studies-to-navigate-a-course-to-zero-net-energy/232bd9ae1813ae5ff97d1bfcbe2b3d3/>
9. Collins, T. (2012). A research protocol for a field study of behavior, comfort, and energy consumption in student residence halls. In R. Klein, R. Hayes, & V. Ebbert (Eds.), *The Place of Research/The Research of Place*. Paper presented at the ARCC/EAAE 2010 International Conference of Architectural Research, Washington, D.C., 23-26 June (pp. 444-450). Washington D.C.: ARCC.
ISBN: 978-1-935129-19-6
<http://www.aia.org/aiaucmp/groups/aia/documents/pdf/aiab087194.pdf>
24% Acceptance Rate

Self-Published Books

1. Collins, T. (2012). *Behavior, Comfort, and Energy Consumption: In Student Residence Halls*. Saarbrücken, Germany: LAP Lambert Academic Publishing.
ISBN-10: 3846546119

References to My Work

1. Sellers, B. (2016). Investigating the Influence of the Built Environment on Energy-Saving Behaviors.

2. Osei-Poku, G. (2016). Post Occupancy Evaluation of the Ahanta Hall of Takoradi Polytechnic, Ghana.
3. Stefanovic, I. L., & Gelinas, L. (2012). Ethics, Energy Demand Management and Environmental Design. *Environments*, 38(1), 33.

Other

1. University of Oregon, Campus Operations. (2013). *A business & educational case for LEED for existing buildings: operations & maintenance at the University of Oregon*. Eugene, OR: Collins, T. & Smith, D.
2. University of Oregon, Campus Operations. (2012). *High performance building program: final report*. Eugene, OR: Collins, T.

Portfolio of Work

1. http://issuu.com/tomcollin/docs/tom_collins_portfolio_of_work

AWARDS & HONORS

- 2014 ARCC King Student Medal for Excellence in Architectural and Environmental Design and Research
- 2010 ARCC King Student Medal for Excellence in Architectural and Environmental Design and Research
- 2002 Alpha Rho Chi Bronze Medal

GRANTS, FELLOWSHIPS, & SCHOLARSHIPS

External Funded

- 2014 Society of Building Science Educators (SBSE) Retreat Scholarship
- 2014 ASHRAE Oregon Silver Award Scholarship
- 2013 ASHRAE Oregon Silver Award Scholarship

Internal Funded

- 2018 Ball State University Immersive Learning Travel Grant
- 2018 Ball State University Immersive Learning Mini Grant

- 2016 Ball State University ASPIRE Junior Faculty Research Grant,
EQuALS: Environmental Quality in Active Learning Spaces
- 2011-15 Department of Architecture PhD Fund, University of Oregon
- 2014 Anthony Wong Scholarship for Research in Sustainable Design, Travel Grant, University of Oregon
- 2013 Anthony Wong Scholarship for Research in Sustainable Design, Travel Grant, University of Oregon
- 2012 Anthony Wong Scholarship for Research in Sustainable Design, Travel Grant, University of Oregon

Proposals Submitted but Not Funded

- 2017 Spencer Foundation
SAIL: Spatial Affordances and Interactive Learning (with J. Griffith & S. Kanakri)
- 2016 Nuckolls For Lighting Education
Lighting Design for Human Needs Course Proposal (with S. Kanakri)

INVITED TALKS

- 2017 Teaching ZEB: an example from the USA, ZEB Konferenzen, Research Centre on Zero-emission Buildings, Trondheim, Norway, January 19.
- 2017 POE & User Energy Issues, Norwegian University of Science & Technology (NTNU), MS in Sustainable Design Program, Trondheim, Norway, January 18.
- 2016 Post-occupancy evaluation in challenging building types, EDRA 47 Raleigh – Innovation: Shifting Ground, May 18-21.

CONFERENCE ACTIVITY & PARTICIPATION

- 2018 Three Courses/Four Typologies: Experiences with the 2017 Race to Zero Competition. RBDCC 2018 Conference. State College, PA. 28 February – 2 March.
- 2018 EQuALS – Environmental quality in active learning spaces. ARCC/EAAE 2018 Conference, Philadelphia, 16-19 May.
- 2017 Every Energy Model is WRONG and INDISPENSABLE. AIA OVR 2017 Conference, Indianapolis, 27 September.
- 2017 The power of words: Grounded Theory research in architecture and design. ARCC 2017 Conference, Salt Lake City, 14-16 June.

- 2017 Navigating the Race to Zero Student Design Competition. SBSE Retreat, July 25-28.
- 2016 Modeling architecture design studio on practice-based integrated “ways of working,” EAAE ARCC Lisbon 2016, June 15-18.
- 2016 Post-occupancy evaluation in challenging building types, EDRA 47 Raleigh, May 18-21.
- 2015 The next step in sustainability: a case study for LEED EBOM GOLD, Knight Law Center, PCAPPA 2015: Facilities & education, the 3 R’s, October 11-13.
- 2015 Getting plugged-in: a presentation & panel discussion on plug load electricity in residence halls, NWACUHO 2015 Annual Conference, February 8-10. (Session presenter/moderator)
- 2014 Knight Law Center: a case for LEED EBOM on campus, AASHE 2014 Conference & Expo, October 26-29.
- 2014 Pulling the plug: creatively using simple tools to address plug loads, SBSE Retreat, June 18-22.

CAMPUS & DEPARTMENTAL TALKS

- 2015 The influence of design, operations, & occupancy on plug loads in student housing, University of Oregon, Dissertation Defense, April 28.
- 2013 Short circuit: the implications of design, operations, & occupancy on plug loads in student housing, University of Oregon, PhD Colloquium, November 25.
- 2013 A business & educational case for LEED EBOM at the University of Oregon, University of Oregon, December 11.
- 2012 High performance buildings, University of Oregon, September 11.

TEACHING EXPERIENCE

Ball State University

Course	Terms	Subject	Level	Credits	Enroll.
Environmental Systems I	F18	Building Tech.	UG	3	26
Comprehensive Architecture Studio	F18	Design Studio	G	6	11
Environmental Systems I	S18	Building Tech.	UG	3	26
Comprehensive Architecture Studio	S18	Design Studio	G	6	8
Environmental Systems II	F17	Building Tech.	UG	3	24
Architectural Design 3	F17	Design Studio	UG	5	12
Environmental Systems I	Su17	Building Tech.	UG	3	2
Comprehensive Architecture Studio	S17	Design Studio	G	6	8

Course	Terms	Subject	Level	Credits	Enroll.
Environmental Systems I	S17	Building Tech.	UG	3	25
Architectural Design 3	F16	Design Studio	UG	5	11
Environmental Systems II	F16	Building Tech.	UG	3	18
Environmental Systems II	Su16	Building Tech.	UG	3	3
Environmental Systems I	Su16	Building Tech.	UG	3	2
Architectural Design 4	S16	Design Studio	UG	5	11
Environmental Systems I	S16	Building Tech.	UG	3	20
Environmental Systems II	F15	Building Tech.	UG	3	32

M.Arch Thesis Advising

Advisor	Terms	Title
Daniel Burns (Major Advisor)	F17, S18	<i>Smart Glass: The Future of Architectural Glazing</i>
Mason Olson (Minor Advisor)	F17, S18	<i>Race to Zero Competition</i>
Akila Anantharaman (Major Advisor)	F16, S17	<i>Affordable Housing for People Transitioning from Homelessness</i>
Luke Kamp (Major Advisor)	F16, S17	<i>Influencing Architecture</i>
Joe Humpal (Major Advisor)	F16, S17	<i>STEP - Standard Tracking of Efficient Projects</i>
Derek Morphew (Minor Advisor)	F16, S17	<i>Digitally Fabricated Energy</i>

Honors College Thesis Advising

Advisor	Terms	Title
Alexander Franklin (Major Advisor)	S17	<i>The Indianapolis Animal Testing and Educational Center</i>

Visiting Critiques & Presentations

Course	Terms	Subject	Level	Instructor
Indianapolis Project	S18	Design Studio	G	Heidemann
ACSA Steel Competition	S18	Design Studio	U	Koester
Bridge project	F17	Design Studio	U	Burns
Light box project	S17	Design Studio	U	Klinger
Final Review	S17	Design Studio	U	Heidemann
Cripe Competition: Tiny Houses	F16	Design Studio	U	Chiuini et al.
Masterplan/Redevelopment for Muncie GM Site	F16	Design Studio	G	Spodek
Borg Warner Reuse, Muncie	F16	Design Studio	U	Dotson
Fountain Square, Indianapolis	F16	Design Studio	U	Chiuini
Borg Warner Reuse, Muncie	F16	Design Studio	G	Dotson
Arch 501 Ft. Wayne Project	S16	Design Studio	G	Shimizu
Alexis Flowers Thesis	S16	Thesis	G	Coggeshall
Christian Gonzales Thesis	S16	Thesis	G	Barry

Course	Terms	Subject	Level	Instructor
Rebecca Martin Thesis	S16	Thesis	G	Barry
Alan Dang Thesis	S16	Thesis	G	Chiuini
An Institute for the Study & Application of the Principles of Biophilia	F15	Design Studio	U	Koester
Criminal Justice Center	F15	Design Studio	U	Janz
ReTHINK Muncie	F15	Design Studio	U	Harwood
Farnsworth House Competition	F15	Design Studio	G	Spodek

University of Oregon

Course	Terms	Subject	Level	Credits	Enroll.
ZEB House (instructor of record/co-taught with Tine Hegli, Snøhetta)	S15	Design Studio	UG/GR	6	16
Environmental Controls Systems I (TA)	W13, W15	Building Tech.	UG/GR	4	90
Environmental Controls Systems II (TA)	S12, S13, S14	Building Tech.	UG/GR	4	107-125
Context of the Profession (TA)	W14	Prof. Practice	UG/GR	4	85

Student Awards

- 2018 2018 Race to Zero Competition. 2nd Place for the Urban Single-family Contest. National Renewable Energy Laboratory. Golden, CO. April 22.
- 2017 2017 Race to Zero Competition. 1st Place for the Suburban Single-family Contest. National Renewable Energy Laboratory. Golden, CO. April 23.

RESEARCH EXPERIENCE

- 2018 Department of Architecture, Ball State University
Wrote 2 building performance case studies & assisted with editing and formatting for *Mechanical & Electrical Equipment for Buildings, 13th Edition*
- 2017- Department of Architecture, Ball State University
SAIL: Spatial Affordances in Interactive Learning
Co-PI: Mixed methods study of an ILS classroom on the BSU campus
- 2016-18 Department of Architecture, Ball State University
EQuALS: Environmental Quality in Active Learning Spaces
PI: Mixed methods study of indoor environmental quality in 5 ILS classrooms on the BSU campus
Funding: ASPIRE Junior Faculty Grant

- 2016 Department of Architecture, Ball State University
Wrote 5 building performance case studies for *The Green Studio Handbook, 3rd Edition*
- 2011-15 Department of Architecture, University of Oregon
PI: Mixed-methods study on plug load energy in student housing on 3 campuses, dissertation
- 2015 Net Zero Energy Design Lab (NetZED Lab), University of Oregon
RA: Developed/coordinated a continuing education extension course for K-12 teachers entitled Next Generation: STEM, Standards, & Sustainability
- 2014 Net Zero Energy Design Lab (NetZED Lab), University of Oregon
RA: research design, data collection, and analysis for a peer reviewed international conference paper on an indoor air quality study in a classroom building
- 2013 Campus Operations, University of Oregon
PI: Case study for a LEED EB: O&M certified campus building
- 2013 Net Zero Energy Design Lab (NetZED Lab), University of Oregon
RA: Assisted with: writing & revisions for Mechanical & Electrical Equipment for Buildings, 12th Edition; research design, data collection, analysis for a peer reviewed conference paper on net-zero energy environmental systems pedagogy; research design & data collection for an indoor air quality study in a classroom building
- 2012 Campus Operations, University of Oregon
PI: High performance building program feasibility study
- 2012 Net Zero Energy Design Lab (NetZED Lab), University of Oregon
RA: Qualitative analysis for a peer reviewed conference paper on study on carbon neutral buildings

SERVICE TO THE PROFESSION

Professional Organizations

- 2017- Society of Building Science Educators (SBSE), Treasurer and Board Member
2017 Moderated a panel discussion at the AIA OVR regional conference entitled "Every Energy Model is Wrong & Indispensible," 27 September 2017
2015-17 Society of Building Science Educators (SBSE), Co-chair Scholarships & Awards Committee

External Journal Peer Review

- 2013- Building Research & Information Journal (BRI)
2014 University of Michigan Journal of Sustainability

External Conference Paper Peer Review

2016 ACSA Annual Meeting - *Brooklyn says "Move to Detroit"*

External Book Proposal Peer Review

2010- Routledge/Taylor & Francis Group

DEPARTMENTAL & UNIVERSITY SERVICE

Ball State University

2017- University Core Curriculum Subcommittee

2017- University Libraries Renovation Committee

2017- ASHRAE Student Branch Faculty Advisor

2017- CAP ARCC Representative

2017 BEEnow (Built Environment Education now) Task force

2017 CAP CMID Transition Curriculum Committee

2016- Dept. of Architecture: Undergraduate Curriculum Committee (Secretary)

2016 Dept. of Architecture: Master of Science in Architecture (MS) Ad Hoc Committee

2016-17 Dept. of Architecture: Faculty Search Committee

2016 Dept. of Architecture: B.Arch Task Force

2015-16 Dept. of Architecture: M.S. Program Working Group

NON-ACADEMIC WORK EXPERIENCE

2011-14 Freelance, Eugene, OR

2004-08 Payette Associates, Boston, MA

2001-04 DiNisco Design Partnership, Boston, MA

1998 Jean Carroon Architects (Now Goody Clancy), Boston, MA

PROFESSIONAL MEMBERSHIPS & AFFILIATIONS

- 2017- American Society of Heating, Refrigerating, & Air-conditioning Engineers (ASHRAE)
- 2012- Society of Building Science Educators (SBSE)
- 2002- American Institute of Architects (AIA) # 30231626

REFERENCES

Alison Kwok
Professor of Architecture & Director of NetZED Case Study Lab
Department of Architecture
1206 University of Oregon
Eugene, Oregon 97403
akwok@uoregon.edu
(541) 346-2126

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John Reynolds
Professor Emeritus of Architecture
Department of Architecture
1479 Moss St
1206 University Of Oregon
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Ihab Elzeyadi
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