

## FACULTY VITA

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Date: 21MAY24

Name: Leslie A. Potter

Department: Industrial and Manufacturing Systems Engineering

Current Rank: College of Engineering Distinguished Teaching Professor

### I. BACKGROUND, PROFESSIONAL EXPERIENCE AND RECOGNITIONS

#### A. Education

- The Pennsylvania State University, M.S. – Industrial Engineering, Industrial and Manufacturing Engineering, 1996, Emphasis in Manufacturing
- Iowa State University, B.S. – Industrial Engineering, Industrial and Manufacturing Systems Engineering, 1991, With Distinction

#### B. Academic Appointments

- College of Engineering Distinguished Teaching Professor, Department of Industrial and Manufacturing Systems Engineering, Iowa State University, 2023-present
- Teaching Professor, Department of Industrial and Manufacturing Systems Engineering, Iowa State University, 2020-2023
- Associate Teaching Professor, Department of Industrial and Manufacturing Systems Engineering, Iowa State University, 2019-2020
- Senior Lecturer, Department of Industrial and Manufacturing Systems Engineering, Iowa State University, 2008-2019
- Lecturer, Department of IMSE, Iowa State University, 2001-2008
- Adjunct Instructor, Department of Industrial Technology, University of Northern Iowa, 1999-2000
- Research Assistant, The Pennsylvania State University, 1994-1996
- Program Assistant for engineering administration (student representative, resident assistant, peer tutor), Iowa State
- Undergraduate Research Assistant, Iowa State University, 1991

#### C. Other Professional Employment

- Supply Management Engineer, John Deere Waterloo Works, Waterloo, Iowa, 1997-1998
- Supervisor, John Deere Waterloo Works, Waterloo, Iowa, 1996-1997
- Quality Engineer and Supervisor, John Deere Waterloo Works, Waterloo, Iowa, 1995
- Quality Engineer, John Deere Waterloo Works, Waterloo, Iowa, 1993-1994
- Manufacturing Engineer, John Deere Waterloo Works, Waterloo, Iowa, 1992-1993
- Project Engineer, John Deere Waterloo Works, Waterloo, Iowa, 1991-1992
- Cooperative Education Industrial Engineer, 3M, St. Paul, Minnesota, Jan-Jun 1990
- Cooperative Education Industrial Engineer, 3M, White City, Oregon, Jun-Dec 1988

#### D. Honors and Awards

1. College of Engineering Distinguished Teaching Professorship, September 2023
2. College of Engineering Excellence in Foundational Course Teaching Award, September 2023
3. #CyThx Recipient, Fall 2023, Fall 2020
4. Don Grant Faculty Award for Excellence in Undergraduate Education, Industrial and Manufacturing Systems Engineering, April 2022
5. Book of Golden Deeds – Waverly Exchange Club, April 2022
6. Gratitude Note Recipient – Engr 104, Dec 2022
7. Bremer County 4-H Honorary Award Recipient, Nov 2021
8. College of Engineering Student Marshal Escort, Fall 2021 Commencement
9. Faculty representative for Kara Albrecht, CoE student representative for “The College Tour,” Prime Video Season 3
10. Nominated for Robert Foster Cherry Award for Great Teaching, Baylor University
11. Farmhouse Faculty Dinner invitee, Fall 2021
12. Don Grant Faculty Award for Excellence in Undergraduate Education, Industrial and Manufacturing Systems Engineering, April 2018
13. IISE Best Paper Award, Engineering Education track, Institute of Industrial and Systems Engineers Annual Conference, May 2018
14. Institute of Industrial and Systems Engineers Lean Division Teaching Award (co-recipient with Frank Peters), Institute of Industrial and Systems Engineers Annual Conference, Pittsburgh, 2017
15. Women of Innovation Finalist, Technology Association of Iowa, November, 2016
16. MAP - Works Champion, ISU, November, 2014
17. College of Engineering Student Marshal Escort, Spring 2014 Commencement
18. Faculty of the Year Award, ISU College of Engineering student body, April, 2013
19. Superior Engineering Teaching Award, ISU College of Engineering, September, 2013
20. Iowa Women of Innovation Finalist, Pioneer Hi-Bred, November, 2011
21. Don Grant Faculty Award for Excellence in Undergraduate Education, Industrial and Manufacturing Systems Engineering, May 2010
22. Outstanding Engineering Club Advisor Award, ISU College of Engineering student body, February, 2010
23. Outstanding Engineering Faculty Award, ISU College of Engineering student body, April, 2009
24. Nominated for Best Paper, ASEE National Conference in Industrial Engineering Division, Chicago, June, 2006
25. One of top three papers presented at North Midwest Regional ASEE Conference, October, 2005
26. Louis S. & Sara S. Michael Graduate Fellowship, Penn State University, 1994
27. National Science Foundation Honorable Mention for Graduate Student Fellowship, 1991
28. 15-year pin - 4-H Volunteer Leader, Iowa State University Extension, April 2019

## II. SCHOLARSHIP AND RESEARCH/CREATIVE ACTIVITIES

### A. Scholarship

#### 1. Articles in Peer-Reviewed Journals – In Print

- a) Jacobson B<sup>+</sup>, Dorneich M, and L Potter, “Impact of Lecture Video Acceleration in a Flipped Introductory Engineering Course,” *The International Journal of Engineering Education*, Vol. 34, Number 6, 1863-1875 (2018).
- b) Karve A<sup>+</sup>, Voigt R, and L Potter<sup>#</sup>, “Use of Measurement Equipment for Casting Dimensional Inspection,” *AFS Transactions*, 971-979 (1997).
- c) Potter L<sup>+</sup>, Voigt R, Peters F<sup>+</sup>, Lies J<sup>+</sup>, and M Chandra, “A Statistically Based Pattern Approval Process,” *AFS Transactions*, Vol 104, 410-421 (1996).

#### 2. Peer-Reviewed Conference Proceedings, Bulletins, or Reports – In Print

- a) Potter L, Popejoy-Sheriff D, Albrecht H<sup>+</sup>, and J Wols<sup>+</sup>, “Expanding the UNIVERSE: Understanding Industrial Engineering VERSatility for K-12 Educators,” Proceedings of the IISE Annual Conference, Montreal, Quebec (2024). (Presented – Potter)
- b) Potter L, Stone R, and D Popejoy-Sheriff, “Increasing Graduate School Enrollment of Female Industrial Engineers through CUREs,” *Proceedings of the ASEE Annual Conference*, Tampa, Florida (2019). (Presented – Potter)
- c) Potter L, Raje S<sup>+</sup>, Oftedal J<sup>+</sup>, Okudan Kremer G, Bastias A, Molenaar K, Madson K<sup>+</sup>, and B Franz, “Developing a TRIZ-based Design for Flexibility Tool for Manufacturing Facilities,” *Proceedings of the IISE Annual Conference*, Orlando, Florida (2019). (Presented – Raje)
- d) Potter L, Okudan Kremer G, Scallon J<sup>+</sup>, Swegle D<sup>+</sup>, and T Gould<sup>+</sup>, “Establishing a Link between Electrodermal Activity and Classroom Engagement,” *Proceedings of the IISE Annual Conference*, Orlando, Florida (2019). (Presented – Scallon)
- e) Gregory S, Bastias A, Molenaar K, Madson K<sup>+</sup>, Franz B, Potter L, and G Kremer, “Assessing the Influence of Manufacturing Flexibility on Facility Construction Costs,” *Proceedings of the IISE Annual Conference*, Orlando, Florida (2019). (Presented – Madson)
- f) Fyock A<sup>+</sup>, Potter L, Stone R, and D Popejoy-Sheriff, “Filling the Graduate Pipeline Via Course-Based Undergraduate Research Experiences (CUREs),” *Proceedings of the IISE Annual Conference*, Orlando, Florida (2018). (Presented – Potter)
- g) Potter L, Fyock A<sup>+</sup>, Stone R, and D Popejoy-Sheriff, “Implementing a Course-Based Undergraduate Research Experience (CURE) into an IE Curriculum,” *Proceedings of the 2018 ASEE Annual Conference*, Salt Lake City, Utah (2018). (Presented – Stone)
- h) Potter L and D Popejoy-Sheriff, “Comparing Assistantship vs. Course-Based Undergraduate Research Opportunities,” *Proceedings of the IISE Annual Conference*, Pittsburgh, Pennsylvania (2017). (Presented – Potter)
- i) Potter L and B Jacobson<sup>+</sup>, “Lessons Learned from Flipping a First-Year Industrial Engineering Course,” *Proceedings of the IISE Annual Conference*, Nashville, Tennessee (2015). (Presented – Jacobson)

- j) L Potter, "Using Industry to Drive Continuous Improvement in Capstone Design," *Proceedings of the Capstone Design Conference*, Champagne-Urbana, Illinois (2012). (Presented – Potter)
- k) Peters F, Potter L, and K J Min, "Developing Students' Understanding of Global Issues through Lean Manufacturing," *Proceedings of the 38<sup>th</sup> ASEE/IEEE Frontiers in Education Conference*, Saratoga Springs, New York (2008). (Presented – Potter)
- l) Potter L, Jackman J, Min K J, and M Search<sup>+</sup>, "A New Engineering Communications Course Based on a Professional Communications Process," *Proceedings of the 2008 ASEE National Conference*, Pittsburgh, Pennsylvania (2008). (Presented – Potter)
- m) Potter L, Jackman J, Min K J, and M Search<sup>+</sup>, "Integrating Communication and Engineering Skills in an Industrial Engineering Curriculum Based on Outcome Assessment Results," *Proceedings of the Institute of Industrial Engineers IERC 2008*, Vancouver, British Columbia (2008). (Presented – Potter)
- n) Potter L, Min K J, and F Peters, "Effecting Improvement in an Industrial Engineering Program by Applying Outcome Assessment Results," *Proceedings of the 2007 ASEE National Conference*, Honolulu, Hawaii (2007). (Presented – Potter)
- o) Potter L, Daniel S<sup>+</sup>, Popejoy-Sheriff D, and K J Min, "ABET Outcome Assessment and Improvement through the Capstone Design Course in an Industrial Engineering Curriculum," *Proceedings of the 2006 ASEE National Conference*, Chicago, Illinois (2006). (Presented – Potter)
- p) Potter L and K J Min, "ABET Outcome Assessment in an Industrial Engineering Capstone Design Course," *Proceedings of the 2005 ASEE North Midwest Regional Conference*, Brookings, South Dakota (2005). (Presented – Potter).
- q) Potter L<sup>+</sup>, Voigt R, and F Peters, "A Preliminary Analysis of the Influence of Casting Feature Variables and Measurement Instruments on the Repeatability of Casting Feature Dimensions," *Proceedings of the 1995 Steel Founders' Society of America Technical and Operating Conference*, Chicago, Illinois (1995). (Presented – Potter)
- r) Peters F<sup>+</sup>, Voigt R, Potter L<sup>+</sup>, and E DeMeter, "Dimensional Repeatability of Steel Castings: An Update," *Proceedings of the 1995 Steel Founders' Society of America Technical Operating Conference*, Chicago, Illinois (1995). (Presented – Peters)

KEY: +Student co-author #Derived from thesis

### 3. Books and Book Chapters

- a) Aune, Jeanine Elise and Potter, Leslie A., End-of-chapter review question bank for online Access (297 questions plus distractors) for *Technical Writing for Engineers and Scientists, 4<sup>th</sup> ed.*, McGraw Hill, © 2023, completed 15APR24
- b) Finkelstein, Leo, Aune, Jeanine Elise, and Potter, Leslie A., *Technical Writing for Engineers and Scientists, 4<sup>th</sup> ed.*, McGraw Hill, © 2023
- c) Aune, Jeanine Elise and Potter, Leslie A., Support materials for *Technical Writing for Engineers and Scientists, 4<sup>th</sup> ed* (PowerPoints, grading rubrics, instructor manual), published 2022, available through McGraw-Hill Connect

### III. RECENT TEACHING

GTA = graduate teaching assistant; UTA = undergraduate teaching assistant; scale = 1-5

Term (most recent first)	Course number	Course Title	Credits	Lab	Number of students	Overall Course Evaluation Score (n)
Spring 2024	IE 101 – 1	Industrial Engineering (IE) Profession	R	No	81	4.80 (49)
Spring 2024	IE 222 – 1	Design and Analysis Methods for System Improvements (abbreviated System Improvements)	3	Yes	73	4.68 (47)
Spring 2024	IE 222 – 2	System Improvements	3	Yes	28	4.55 (20)
Fall 2023	IE 101 – 1	IE Profession	R	No	30	4.85 (20)
Fall 2023	IE 148 – 1	Information Engineering (First-year engineering problems with programming)	3, lab	Yes	16	4.83 (12)
Fall 2023	IE 148 – 2	Information Engineering	3, lab	Yes	25	4.73 (11)
Mar-Jun 2023	IE 242X IT	Probability & Statistics	1	No	3	NA#
Mar-Jun 2023	Stat 305 – IT*	Engineering Statistics	3	No	18	NA#
Spring 2023	IE 101 – 1	IE Profession	R	No	71	4.82 (33)
Spring 2023	IE 222 – 1	System Improvements	3	No	86	4.48 (29)
Fall 2022	IE 101 – 1	IE Profession	R	No	34	4.23 (13)
Fall 2022	IE 148 – 1	Information Engineering	3, lab	Yes	28	4.58 (24)
Fall 2022	IE 148 – 2	Information Engineering	3, lab	Yes	26	4.71 (24)
Spring 2022	IE 101 – 1	IE Profession	R	No	64	4.71 (38)
Spring 2022	IE 148 – 1	Information Engineering	3, lab	Yes	21	4.50 (14)
Spring 2022	IE 222 – 1	System Improvements	3	No	30	4.46 (24)
Spring 2022	IE 222 – 2	System Improvements	3	No	60	4.09 (32)

\*= international travel component

# = no evaluations administered

### IV. COMMITTEES

- A. IMSE Recruitment and Retention Committee, Chair
- B. IMSE ABET Committee
- C. College of Engineering International Programs Advisory Committee
- D. College of Engineering Strategic Planning Committee