

# **Nathan Marshall Wilson, Ph.D., M.B.A.**

## **PERSONAL DATA**

Work Address: UCLA Anderson School of Management, 110 Westwood Plaza, Suite C505, Los Angeles, CA 90095

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## **EDUCATION**

**UCLA (Anderson School of Management)**, Los Angeles, CA

Master of Business Administration, July 2011

**Stanford University**, Stanford, CA

Doctor of Philosophy, Mechanical Engineering, December 2002

Master of Science, Mechanical Engineering, September 1997

**Virginia Tech**, Blacksburg, VA

Bachelor of Science, Mechanical Engineering, May 1996, Cum Laude

## **EXPERIENCE**

**UCLA Anderson School of Management**

Los Angeles, CA (Visiting Assistant Professor)

January 2012 –

- Developed a new four unit introductory course on entrepreneurship titled “Entrepreneurship and Venture Initiation” for undergraduates. Taught six quarters: Winter 2012 (39 students), Spring 2012 (38 students), Fall 2012 (19 students), Winter 2013 (39 students), Fall 2013 (34 students), Winter 2014 (40 students enrolled).
- Developed a new four unit course titled “Business Plan Development” for undergraduates offered Spring Quarter 2013. 29 students received letter-grade credit for the class working in seven teams preparing plans for student-initiated new business ideas.
- Developed a new four unit course titled “Entrepreneurial Technology and Science Commercialization” offered during Winter Quarter 2014. 31 students are currently enrolled in the class for credit.

**Open Source Medical Software Corporation**

San Francisco, CA (CEO, Founder)

June 2009 –

- Principal Investigator on National Heart, Lung, and Blood Institute / National Institutes of Health SBIR Phase II Contract No. HHSN268201100035C for \$997,860 to build the largest public collection of vascular disease image data sets and blood flow simulation results available. The two year contract was successfully completed on May 29, 2013.
- Constructed a computational model repository and website ([www.vascularmodel.org](http://www.vascularmodel.org)) containing 128 distinct anatomical models modeling over 3600 vessel segments. In addition to models of normal anatomy (24% total), a variety of diseased anatomic states such as abdominal aortic aneurysms (15 models), aortic coarctation (8 models), coronary aneurysms linked to Kawasaki Disease (8 models), post CABG surgery (5 models), cerebral aneurysms (7 models), pulmonary arterial hypertension (6 models), and Glenn and Fontan procedures in patients with single-ventricle heart disease (13 models) are included. Simulations are included for 106 anatomically unique models at rest as well as a total of 29 simulated exercise states for 17 of the models.
- Directly supervised two full-time biomedical engineers and directed efforts of three university subcontractors to meet goals of SBIR Phase II contract.
- Provide consulting services on open source medical software for cardiovascular applications to clients including the University of California - San Diego, Marquette University, Michigan State, King’s College London, University of California - Berkeley, and Stanford University.

### **McKesson Corporation**

San Francisco, CA (MBA Intern, Strategy & Innovation Group)

June 2010 – August 2010

- Investigated strategic business opportunities by reviewing the scientific literature for empirical data studying proposals to reduce expenditures while increasing the quality, affordability, and accessibility of healthcare in the United States and presented the final results to senior management.

### **Cardiovascular Simulation, Inc. (now Heartflow, Inc.)**

Mountain View, CA (President, Founder, Secretary of the Board of Directors)

October 2007 – May 2009

- Founded company with Professors Charles A. Taylor, Ph.D. and Chris K. Zarins, M.D. to commercialize over ten years of university research on blood flow simulation with the goal of transferring the technology to the clinic.
- Developed business strategy, co-wrote business plan and presented to potential investors, lead consulting services and software sales.
- Negotiated with the Office of Technology Licensing to license application-specific source code developed in the laboratory of Professor Taylor.
- Principal Investigator on a National Institutes of Health SBIR Phase I Contract No. HHSN268200800008C for \$99,963 (8/1/2008 – 3/31/2009) to build a pioneering open-data computational cardiovascular and pulmonary model repository.

### **Stanford University**

Department of Bioengineering, Stanford, CA (Research Associate)

December 2006 – September 2007

- Led open source release of image-based model construction and cardiovascular modeling software developed for the National Institute of Health as part of a National Center of Biocomputation grant.
- Mentoring undergraduate, graduate, and post-doctoral students involved in cardiovascular simulation research.

### **FUJIFILM Software (California), Inc. / FUJIFILM Medical Systems USA, Inc.**

Medical Group, San Jose, CA (Staff Scientist)

March 2006 – December 2006

- Developed proprietary two-dimensional image registration algorithm for mammography.
- Created an internal software application for rapid prototyping of visualization techniques and image registration utilizing the Visualization Toolkit (VTK) and the Insight Segmentation and Registration Toolkit (ITK).

### **Stanford University**

Department of Surgery, Stanford, CA (Engineering Research Associate)

January 2003 – February 2006

- Extended and maintained the core software architecture I developed for the Cardiovascular Biomechanics Research Laboratory that integrates medical image processing, automatic mesh generation, finite-element based numerical simulation, and scientific visualization utilizing best in-class commercial and open-source libraries including the VTK and the ITK into a single, unified software application for cardiovascular biomechanics research.
- Developed software for a joint Stanford/Stanford Research Institute led industrial consortium to quantify deformations and loading on the superficial femoral artery relevant to stent design and failure mechanisms.
- Supported image-based patient-specific and animal-specific geometric model construction and hemodynamic simulation of the arterial and venous vascular system including applications in the aortic arch, infra-renal aorta, lower extremities, pulmonary arteries, and carotid arteries with emphasis on acquired and congenital vascular disease including abdominal aortic aneurysms, stenoses, and peripheral vascular occlusive disease.
- Led software development and coordinated computational resources for the Cardiovascular Biomechanics Research Laboratory to support a multi-million dollar National Science Foundation contract on “Simulation Based Medical Planning for Cardiovascular Disease.”

## **Stanford University**

Department of Mechanical Engineering, Stanford, CA (Doctoral Research under Charles A. Taylor and Robert W. Dutton)

January 1997 – December 2002

- Developed a general, extensible, modular software framework for computational prototyping that integrated the major stages in computational prototyping.
- Created a system to enable vascular surgeons to preoperatively evaluate different surgical interventions in a patient-specific fashion for patients with aorto-iliac occlusive disease.
- Developed geometric algorithms enabling the creation of geometry of realistic dimensions for Micro-Electro-Mechanical Systems simulation with different levels of physical accuracy.

## **National Aeronautics and Space Administration**

Langley Research Center, Hampton, VA (Mechanical Engineering Position)

June 1996 - August 1996

- Developed a general finite element one-dimensional heat transfer code utilizing hierarchical shape functions to investigate fundamental issues relating to the design of *hp*-adaptive strategies.

## **The Goodyear Tire & Rubber Company**

Technical Center, Akron, OH (Mechanical Engineering Position)

January 1995 - May 1995

- Extensively tested a commercial finite element package (ABAQUS) for use in non-linear, transient heat transfer analysis and enhanced the capabilities of the code by writing user subroutines to account for the physical changes in rubber during the vulcanization process.
- Presented findings at a user group meeting and co-authored a feasibility study comparing ABAQUS to in-house proprietary modeling software.

May 1994 - August 1994

- Facilitated the implementation of computer aided engineering by streamlining and automating the tire modeling process using graphical user interfaces written in a scripting language (TCL) and toolkit (TK).

August 1993 - January 1994

- Conducted an extensive statistical analysis of 48 physical, chemical, and process variables with 1.5 million pieces of data from a plant and co-authored a report recommending methods to reduce the defect rate.

## **E. I. du Pont de Nemours & Company**

Seaford Plant, Seaford, DE (Mechanical Engineering Position)

January 1993 - May 1993

- Installed, verified, and debugged new, proprietary machinery.
- Managed safety issues, training, and technical documentation for new factory equipment.

## **AWARDS**

Entrepreneurship Certificate (UCLA Anderson), 2011

Finance Certificate (UCLA Anderson), 2011

Easton Technology Leadership Program Certificate (UCLA Anderson), 2011

Intel Foundation Fellowship, 2000-2001

Phi Kappa Phi, 1996

Pi Tau Sigma, 1995

Tau Beta Pi, 1994

Best General Chemistry Student, Virginia Tech, 1991-1992

## **PUBLICATIONS**

**N.M. Wilson**, A.K. Ortiz, and A.B. Johnson, "The Vascular Model Repository: A Public Resource of Medical Imaging Data and Blood Flow Simulation Results," *J. Med. Devices* 7(4), 040923 (Dec 05, 2013) doi:10.1115/1.4025983.

**N.M. Wilson**, A.K. Ortiz, and A.B. Johnson, "The Vascular Model Repository: A Public Resource of Medical imaging Data and Blood Flow Simulation Results," Proceedings of the ASME/FDA 2013 1st Annual Frontiers in Medical Devices Conference, Washington, DC, September 2013.

**N.M. Wilson**, A.K. Ortiz, A.B. Johnson, J.A. Feinstein, J.F. LaDisa, Jr., and Alison Marsden, "A Public Repository of Image-Based Computational Models and Patient-Specific Blood Flow Simulation Results," Proceedings of the ASME Summer Bioengineering Conference, 2013.

A.K. Ortiz, A.A. Aleiou, J.F. LaDisa, Jr., and **N.M. Wilson**, "A sampling of patients with abdominal aortic aneurysms from a public repository of image-based computational models and subject-specific blood flow simulation results," Proceedings of the Midwest Biomedical Engineering Career Conference to be held on April 19, 2013 in Chicago, Illinois, USA.

A. Arzani, **N. Wilson**, and S. Shadden, "CFD Challenge: Solutions Using a Second Order Accurate, Stabilized Finite Element Solver," Proceedings of the ASME Summer Bioengineering Conference, 2012.

M.E. Moghadam, **N.M. Wilson**, Y. Bazilevs, and A. Marsden, "CFD Challenge: Cerebral Aneurysm Simulations Using an In-House Finite Element Solver," Proceedings of the ASME Summer Bioengineering Conference, 2012.

**N.M. Wilson**, A.K. Ortiz, A.B. Johnson, F.R. Arko, III, J.A. Feinstein, J.F. LaDisa, Jr., and A. Marsden, "A Public Repository of Image-Based Computational Models for Patient-Specific Blood Flow Simulation," Proceedings of the ASME Summer Bioengineering Conference, 2012.

A.B. Johnson, A.K. Ortiz, **N.M. Wilson**, A.L. Marsden, J.A. Feinstein, and J.F. LaDisa, Jr., "Patient-Specific Aortic Blood Flow Simulations Post-Total Cavopulmonary Connection," in the Proceedings of the 3rd International Conference on Engineering Frontiers in Pediatric and Congenital Heart Disease, 2012.

**N.M. Wilson**, F. R. Arko, III, J.A. Feinstein, J.F. LaDisa, Jr., and A. Marsden, "An Image-Based Computational Model Repository for Patient-Specific Blood Flow Simulation of Cardiovascular and Pulmonary Disease with Utility in Validation Studies," Workshop of Computer Methods for Cardiovascular Diseases, Rockville, MD, Sept 7-9, 2011.

**N.M. Wilson**, J.F. LaDisa, Jr., and A. Marsden, "An Image-Based Computational Model Repository for Blood Flow Simulation of Cardiovascular and Pulmonary Disease," Workshop on Computer Methods for Cardiovascular Devices: The Integration of Nonclinical and Computer Models, Rockville, MD, June 9-11, 2010.

**N.M. Wilson** and K.T. Rao, "Hemodynamic Simulation of a Novel AAA Device Design Compared to Standard AAA Stent Grafts," Workshop on Computer Methods for Cardiovascular Device Design and Evaluation, Rockville, MD, June 1-2, 2009.

**N.M. Wilson**, G.D. Rubin, C.K. Zarins, and C.A. Taylor, "An Image-Based Cardiovascular and Pulmonary Computational Model Repository for Blood Flow Simulation," Workshop on Computer Methods for Cardiovascular Device Design and Evaluation, Rockville, MD, June 1-2, 2009.

G. Choi, C.P. Cheng, **N.M. Wilson**, C.A. Taylor, "Methods for Quantifying Three-Dimensional Deformation of Arteries due to Pulsatile and Nonpulsatile Forces: Implications for the Design of Stents and Stent Grafts," *Annals of Bioengineering*, 2009; 37(1): 14-33.

**N.M. Wilson**, R.Q. Migrino, L. Harmann, R.W. Prost, J.F. LaDisa, Jr., "Modeling and Realistic Simulation of the Carotid Artery Bifurcation Using 3-D Image Segmentation Implemented in a Commercial Software Package for Hemodynamic Simulation (cvSim<sup>TM</sup>)," Proceedings of the American Society of Mechanical Engineers Summer Bioengineering Conference, 2008.

- C.A. Taylor, C.A. Figueroa, H.J. Kim, S.C. Shadden, R.L. Spilker, C.K. Zarins, I.E. Vignon-Clementel, K.E. Jansen, O. Sahni, M.S. Shephard, **N.M. Wilson**, “Patient-specific Modeling of Blood Flow: Opportunities, Progress, Challenges,” Fifth International Biofluids Symposium and Workshop, Pasadena, CA, Mar. 28-30, 2008.
- G. Choi, C.P. Cheng, **N.M. Wilson**, C.A. Taylor, “Methods For Quantifying Vessel Deformation Due To Pulsatile and Non-pulsatile Forces,” Proceedings of the ASME Summer Bioengineering Conference, 2007.
- J.M. Greve, A. S. Les, B.T. Tang, M.T. Draney Blomme, **N.M. Wilson**, R.L. Dalman, N.J. Pelc, C.A. Taylor, “Allometric Scaling of Wall Shear Stress from Mouse to Man: Quantification Using Cine Phase-Contrast MRI and Computational Fluid Dynamics,” American Journal of Physiology – Heart and Circulatory Physiology, Vol. 291. No. 4, pp. H1700-H1708, 2006.
- C. Cheng, **N.M. Wilson**, R.J. Herfkens, C.A. Taylor, “In Vivo Quantification of Axial and Twisting Deformations of the Superficial Femoral Artery Due to Maximal Hip and Knee Flexion Using Magnetic Resonance Angiography,” Journal of Vascular and Interventional Radiology, Vol. 17, pp. 979-987, 2006.
- B. Tang, C. Cheng, M. Draney, **N.M. Wilson**, P. Tsao, R. Herfkens, C.A. Taylor, “Abdominal Aortic Hemodynamics in Young Healthy Adults at Rest and during Lower Limb Exercise: Quantification using Image-Based Computer Modeling,” American Journal of Physiology – Heart and Circulatory Physiology, Vol. 291. No. 2, pp. H668-H676, 2006.
- C. Yarbrough, E. Bekkers, **N.M. Wilson**, C.A. Taylor, “Application of a three dimensional image-based modeling technique to the circle of Willis,” Proceedings of the American Society of Mechanical Engineers Summer Bioengineering Conference, 2006.
- N.M. Wilson**, F.R. Arko, and C.A. Taylor, “Predicting Changes in Blood Flow in Patient-Specific Operative Plans for Treating Aortoiliac Occlusive Disease,” Computer Aided Surgery, 10(4): 257–277, 2005.
- A. Les, J.M. Greve, M.K. O’Connell, **N.M. Wilson**, I. Vignon, E. Sho, R. Dalman, and C.A. Taylor, “A Comparative Study of Hemodynamic Conditions in Normal and Aneurismal Mouse, Rat, and Human Abdominal Aortas,” Proceedings of the American Society of Mechanical Engineers Summer Bioengineering Conference, 2005.
- J.M. Greve, A.S. Les, M.K. O’Connell, **N.M. Wilson**, E. Sho, R.L. Dalman, and C.A. Taylor, “Development of Methods to Non-Invasively, Longitudinally Quantify Hemodynamics in a Rat Model of Abdominal Aortic Aneurysm Using Magnetic Resonance Imaging and Computational Fluid Dynamics,” Proceedings of the American Society of Mechanical Engineers Summer Bioengineering Conference, 2005.
- B. Song, R. Bennett, **N.M. Wilson**, J.W. Simons, D.A. Shockey, C.A. Taylor, and R. Fahrig, “Methods for Imaging and Quantifying Stent Deformation in the Superficial Femoral Artery,” Proceedings of the American Society of Mechanical Engineers Summer Bioengineering Conference, 2005.
- A. Pang, A. Dubin, J. Feinstein, **N.M. Wilson**, and C.A. Taylor, “Computer Simulation of Venous Occlusion Induced by Pacing Leads,” Proceedings of the American Society of Mechanical Engineers Summer Bioengineering Conference, 2005.
- C.P. Cheng, **N.M. Wilson**, R.J. Herfkens, and C.A. Taylor, “In Vivo Deformations of the Superficial Femoral Artery – Possible Cause of Stent Fractures?” Proceedings of the American Society of Mechanical Engineers Summer Bioengineering Conference, 2005.
- C.P. Cheng, C.A. Taylor, **N.M. Wilson**, and R.J. Herfkens, “Superficial Femoral Artery Deformations Due to Maximal Hip and Knee Flexion: Implications for Stent Design,” Proceedings of the International Society for Magnetic Resonance in Medicine, 2005.
- N.M. Wilson**, F.R. Arko, C.A. Taylor, “Patient-Specific Operative Planning for Aorto-Femoral Reconstruction Procedures,” Proceedings of Medical Image Computing and Computer-Assisted Intervention, 2004, LNCS 3217, pp. 422-429.
- M. Hope, J. Levin, M. Markl, M. Draney, **N. Wilson**, and R. Herfkens, “Four-Dimensional Magnetic Resonance Velocity Mapping: Velocity Profile of Blood-Flow through the Thoracic Aorta in 10 Healthy Volunteers,” Proceedings of the International Society for Magnetic Resonance in Medicine, 2004.

**N.M. Wilson**, F.R. Arko, C.K. Zarins, C. Olcott, C.A. Taylor, "Preoperative Computational Modeling of Aortofemoral Reconstructions to Predict Postoperative Hemodynamic Results," Proceedings of the 32nd Annual Symposium on Vascular Surgery, March 10-13, 2004, pg. 110.

C.A. Taylor, E.J. Bekkers, C.A. Figueroa, J.P. Ku, R. Spilker, I. Vignon, **N. Wilson**, and J.A. Feinstein, "Simulation-Based Medical Planning for Cardiovascular Disease," Proceedings of the 2003 International Biofluids Symposium, Pasadena, CA, Dec. 13-14, 2003.

**N. M. Wilson**, F. R. Arko, and C. A. Taylor, "An Integrated Software System for Preoperatively Evaluating Aorto-Femoral Reconstruction Procedures," Proceedings of the American Society of Mechanical Engineers Summer Bioengineering Conference, June 25-29, 2003, pp. 899-900.

**N. M. Wilson**, "Geometric Algorithms and Software Architecture for Computational Prototyping: Applications in Vascular Surgery and MEMS," Ph.D. Thesis, Stanford University, December 2002.

M. T. Draney, M. T. Alley, B. T. Tang, **N. M. Wilson**, R. J. Herfkens, and C. A. Taylor, "Importance of 3D Nonlinear Gradient Corrections for Quantitative Analysis of 3D Angiographic Data," Proceedings of the International Society for Magnetic Resonance in Medicine, 2002.

**N.M. Wilson**, K. Wang, R.W. Dutton, and C.A. Taylor, "A Software Framework for Creating Patient Specific Geometric Models from Medical Imaging Data for Simulation Based Medical Planning of Vascular Surgery," Proceedings of Medical Image Computing and Computer-Assisted Intervention, 2001, pp. 449-456.

**N. M. Wilson**, D. Yergeau, and R. W. Dutton, "Chapter 3: A heterogeneous environment for computational prototyping and simulation based design of MEMS," Final Report: Advanced CAD System for Electromagnetic MEMS Interactive Analysis (Academia), Contract Number: F30602-96-2-0308, 2000, pp. 10-43.

**N. M. Wilson**, D. Yergeau, and R. W. Dutton, "Internet Based Modeling of Micro-Electro-Mechanical Systems," International Conference of Computational Engineering & Sciences, August 21-25, 2000, pp. 1330-1334.

**N. M. Wilson**, K. Wang, D. Yergeau, and R. W. Dutton, "GEODESIC: A New and Extensible Geometry Tool and Framework with Application to MEMS," Proceedings of Modeling and Simulation of Microsystems, March 27-29, 2000, pp. 716-719.

**N. M. Wilson**, P. M. Pinsky, and R. W. Dutton, "Integration of TCAD Tools into CAD Tools for MEMS," United States Association of Computational Mechanics Conference, August 4-6, 1999, pp. 230-231.

**N. M. Wilson**, S. Liang, P. M. Pinsky, and R. W. Dutton, "A Novel Method to Utilize Existing TCAD Tools to Build Accurate Geometry Required for MEMS simulation," Proceedings of Modeling and Simulation of Microsystems, April 19-21, 1999, pp. 120-123.

**N. M. Wilson**, P. M. Pinsky, and R. W. Dutton, "Investigation of Tetrahedral Automatic Mesh Generation for Finite Element Simulation of Micro-Electro-Mechanical Switches," Proceedings of Modeling and Simulation of Microsystems, April 19-21, 1999, pp. 305-308.

**N. M. Wilson**, R. W. Dutton, and P. M. Pinsky, "Utilizing Existing TCAD Simulation Tools to Create Solid Models for the Simulation Based Design of MEMS Devices," Proceedings of International Mechanical Engineering Conference and Exposition, November 15-20, 1998, pp. 565-570.

**N.M. Wilson**, Z.K. Hsiau, R.W. Dutton, and P.M. Pinsky, "A Heterogeneous Environment for Computational Prototyping and Simulation Based Design of MEMS Devices," Proceedings of SISPAD, September 2-4, 1998, pp. 153-156.

R.W. Dutton, E.K. Chan, **N.M. Wilson**, Z.K. Hsiau, and S. Shen, "Challenges in Process Modeling for MEMS," Proceedings of Modeling and Simulation of Microsystems, April 6-8, 1998, pp. 1-4.

R. C. Batra and **N. M. Wilson**, "Adiabatic Shear Bands in Plane Strain Deformations of a WHA," International Journal of Plasticity, Vol. 14, Nos. 1-3, pp. 43-60, 1998.

R.C. Batra and **N. M. Wilson**, "Analysis of Adiabatic Shear Bands in Plane Strain and Axisymmetric Deformations of a Tungsten Alloy," Proceedings of the Society of Engineering Science 33rd Annual Technical Meeting, Oct. 20-23, 1996, pg. CH-1.

### **PROFESSIONAL ACTIVITIES**

Invited Discussant, 5th FDA Workshop on Computer Methods for Medical Devices, to be held in Silver Spring, June 11-12, 2013.

FDA Panel on Research and Collaboration Policy Issues, Workshop on Computer Methods for Cardiovascular Devices: The Integration of Nonclinical and Computer Models, Rockville, MD, June 11, 2010.

Invited Speaker, "Modeling and Simulation in Cardiology", Sim-E-Child Workshop organized by the American College of Cardiology, Washington, DC, June 18, 2012.

Invited Panelist, FDA Panel on Research and Collaboration Policy Issues, Workshop on Computer Methods for Cardiovascular Devices: The Integration of Nonclinical and Computer Models, Rockville, MD, June 11, 2010.

Lab Director, Computer Modeling Methods and Applications, "The Cardiovascular System in Health & Disease, Fundamentals for the Medical Device Industry," Stanford University, Stanford, CA, June 14-17, 2005.

Lab Instructor, "Finite Element Analysis of Cardiovascular Devices," Food and Drug Administration, Rockville, Maryland, September 15-16, 2004.

Lab Director, Computer Modeling Methods and Applications, "The Cardiovascular System in Health & Disease, Fundamentals for the Medical Device Industry," Stanford University, Stanford, CA, June 16-18, 2004.

Lab Director, Computational Methods, "The Cardiovascular System in Health & Disease, Fundamentals for the Medical Device Industry," Stanford University, Stanford, CA, June 11-13, 2003.

Lab Director, Computational Methods, "The Cardiovascular System in Health & Disease, Fundamentals for the Medical Device Industry," Stanford University, Stanford, CA, June 19-21, 2002.

Lab Director, Computational Methods, "The Cardiovascular System in Health & Disease, Fundamentals for the Medical Device Industry," Stanford University, Stanford, CA, September 19-21, 2001.

### **TEACHING**

Management 180, Section 5, Entrepreneurship and Small Business Development, UCLA Anderson School of Management, Winter Quarter 2012. Co-listed as "Econ 106E: Economics of Entrepreneurship." 39 students received credit for the course.

Management 180, Section 5, Entrepreneurship and Small Business Development, UCLA Anderson School of Management, Spring Quarter 2012. Co-listed as "Econ 106E: Economics of Entrepreneurship." 38 students received credit for the course.

Management 180, Section 4, Entrepreneurship and Venture Initiation, UCLA Anderson School of Management, Fall Quarter 2012. Co-listed as "Econ 106E: Economics of Entrepreneurship." 19 students received credit for the course.

Management 180, Section 4, Entrepreneurship and Venture Initiation, UCLA Anderson School of Management, Winter Quarter 2013. Co-listed as "Econ 106E: Economics of Entrepreneurship." 39 students received credit for the course.

Management 180, Section 3, Business Plan Development, UCLA Anderson School of Management, Spring Quarter 2013. 29 students received credit for the course.

Management 180, Section 1, Entrepreneurship and Venture Initiation, UCLA Anderson School of Management, Fall Quarter 2013. 34 students received credit for the course.

Management 180, Section 1, Entrepreneurship and Venture Initiation, UCLA Anderson School of Management, Winter Quarter 2014. 40 students enrolled in the course.

Management 180, Section 3, Entrepreneurial Technology and Science Commercialization, UCLA Anderson School of Management, Winter Quarter 2014. 31 students enrolled in the course.