

Budget Outline Form: Year 1

Estimated Costs and Sources of Funds for Proposed Program

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero

Institution: ___University of Oregon

Academic Year: __2016-17

Program: ___Product Design Master of Science in Sports Product Design

	Column A	Column B	Column C	Column D	Column E	Column F
	From Current Budgetary Unit	Institutional Reallocation from Other Budgetary Unit	From Special State Appropriation Request	From Federal Funds and Other Grants	From Fees, Sales and Other Income	LINE ITEM TOTAL
Personnel						
Faculty (Include FTE)		\$94,000 (1.0 FTE)				\$94,000
Graduate Assistants (Include FTE)						
Support Staff (Include FTE)						
Fellowships/Scholarships						
OPE		\$44,600				\$44,600
Nonrecurring						
Personnel Subtotal		\$138,600				\$138,600
Other Resources						
Library/Printed		\$5,000				\$5,000
Library/Electronic						
Supplies and Services		\$5,000				\$5,000
Equipment		\$60,000				\$60,000
Other Expenses		\$25,000				\$25,000
Other Resources Subtotal		\$95,000				\$95,000
Physical Facilities						
Construction						
Major Renovation						
Other Expenses						
Physical Facilities Subtotal						
GRAND TOTAL		\$233,600				\$233,600

Budget Outline Form: Year 2

Estimated Costs and Sources of Funds for Proposed Program

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero

	Column A	Column B	Column C	Column D	Column E	Column F
	From Current Budgetary Unit	Institutional Reallocation from Other Budgetary Unit	From Special State Appropriation Request	From Federal Funds and Other Grants	From Fees, Sales and Other Income	LINE ITEM TOTAL
Personnel						
Faculty (Include FTE)	\$75,000 (1.0 FTE)	\$94,000 (1.0 FTE)				\$169,000
Graduate Assistants (Include FTE)						
Support Staff (Include FTE)						
Fellowships/Scholarships						
OPE	\$38,600	\$44,600				\$83,200
Nonrecurring						
Personnel Subtotal	\$113,600	\$138,600				\$252,200
Other Resources						
Library/Printed		\$5,000				\$5,000
Library/Electronic						
Supplies and Services		\$5,000				\$5,000
Equipment						
Other Expenses		\$10,000				\$10,000
Other Resources Subtotal		\$20,000				\$20,000
Physical Facilities						
Construction						
Major Renovation		\$25,000				\$25,000
Other Expenses						
Physical Facilities Subtotal		\$25,000				\$25,000
GRAND TOTAL	\$113,600	\$183,600				\$297,200

Budget Outline Form: Year 3

Estimated Costs and Sources of Funds for Proposed Program

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero

	Column A	Column B	Column C	Column D	Column E	Column F
	From Current Budgetary Unit	Institutional Reallocation from Other Budgetary Unit	From Special State Appropriation Request	From Federal Funds and Other Grants	From Fees, Sales and Other Income	LINE ITEM TOTAL
Personnel						
Faculty (Include FTE)	\$75,000 (1.0 FTE)	\$94,000 (1.0 FTE)				\$169,000
Graduate Assistants (Include FTE)						
Support Staff (Include FTE)						
Fellowships/Scholarships						
OPE	\$38,600	\$44,600				\$83,200
Nonrecurring						
Personnel Subtotal	\$113,600	\$138,600				\$252,200
Other Resources						
Library/Printed	\$5,000					\$5,000
Library/Electronic						
Supplies and Services	\$5,000					\$5,000
Equipment						
Other Expenses	\$15,000					\$15,000
Other Resources Subtotal	\$25,000					\$25,000
Physical Facilities						
Construction						
Major Renovation						
Other Expenses						
Physical Facilities Subtotal						
GRAND TOTAL	\$138,600	\$138,600				\$277,200

Budget Outline Form: Year 4

Estimated Costs and Sources of Funds for Proposed Program

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero

	Column A	Column B	Column C	Column D	Column E	Column F
	From Current Budgetary Unit	Institutional Reallocation from Other Budgetary Unit	From Special State Appropriation Request	From Federal Funds and Other Grants	From Fees, Sales and Other Income	LINE ITEM TOTAL
Personnel						
Faculty (Include FTE)	\$75,000 (1.0 FTE)	\$94,000 (1.0 FTE)				\$169,000
Graduate Assistants (Include FTE)						
Support Staff (Include FTE)						
Fellowships/Scholarships						
OPE	\$38,600	\$44,600				\$83,200
Nonrecurring						
Personnel Subtotal	\$113,600	\$138,600				\$252,200
Other Resources						
Library/Printed	\$5,000					\$5,000
Library/Electronic						
Supplies and Services	\$5,000					\$5,000
Equipment						
Other Expenses						
Other Resources Subtotal	\$10,000					\$10,000
Physical Facilities						
Construction						
Major Renovation						
Other Expenses						
Physical Facilities Subtotal						
GRAND TOTAL	\$123,600	\$138,600				\$262,200



September 17, 2015

Scott Pratt
Dean
Graduate School

Dean Pratt:

The Lundquist College of Business is pleased to support the collaboration with the School of Architecture and Allied Arts for the delivery of courses for the Sports Product Design (SPD) master's degree. This program is a partner to our own, already approved, MS in Sports Product Management (SPM). Students in the two programs will share many classes. Over the next few years we will be increasing the number of Portland-based graduate business courses accessible to both SPM and SPD students.

Planned Portland-based courses, available only to students in both SPM and SPD include:

SBUS 645. Sports Product. 3 Credits. Every year Fall term in Portland
ACTG 662. Strategic Cost Management. 4 Credits. Every year Winter term in Portland
MGMT 614. Strategic Management. 3 Credits. Every year Spring term in Portland
MGMT 641. Industrial Ecology. 3 Credits. Every year Fall term in Portland
MGMT 625. New Venture Planning. 3 Credits. Every year Fall term in Portland

None of the above listed courses require a prerequisite.

We look forward to approval of the Sports Product Design master's degree as it is critical to fully realize UO's potential for sports product programming in Portland.

Sincerely,

James R. Terborg
Interim Dean
Carolyn S. Chambers Professor of Management

Office of the Dean

1208 University of Oregon, Eugene OR 97403-1208
541-346-3300 | FAX 541-346-3331

business.uoregon.edu



September 1, 2015

Wonhee Jeong Arndt
Assistant Professor
Product Design Program

To Whom It May Concern:

In support of the Sport Product Design (SPD) master's program in Portland, the School of Journalism and Communication has agreed to allow students from this program to enroll in the following courses from our Strategic Communication master's program beginning Fall term, 2016:

- J626 Strategic Marketing Communication (required course). Every year Winter term in Portland
- J616 Introduction to Strategic Communication Marketing (elective). Every year Spring term in Portland.
- J621 Foundations of Strategic Communication (elective). Every year Fall term in Portland
- J624 Strategic Communication Workshop – variable topics (elective). Every Fall, Winter, Spring term in Portland.

None of the above listed courses require prerequisites.

If enrollment levels dictate, we have also agreed to create an additional section of J626 to accommodate students from the SPD program.

Note that enrollment in electives will be on a space available basis, and by instructor permission. We assume that our students may also be able to take selected courses in your program with the same caveats.

As discussed in our meeting of June 11, we still need to develop an MOU that addresses the cost and capacity issues involved, in view of the budget model. We look forward to working with you.

We look forward to collaborating with the SPD master's program in the coming months and years.

Sincerely,

A handwritten signature in black ink that reads "Leslie Steeves".

Leslie Steeves
Professor
Senior Associate Dean, Academic Affairs
lsteeves@uoregon.edu
541-346-3751



UNIVERSITY OF OREGON

College of Arts and Sciences

August 17, 2015

Wonhee Jeong Arndt
Assistant Professor
Product Design Program

Dear Wonhee,

In support of the Sport Product Design and the Sport Product Marketing masters programs in Portland, the general framework that Human Physiology is committed to is the creation of two new courses at the graduate level.

The learning objectives for these two courses are being collectively developed with all stake-holders programs (Sport Product Design and Sport Product Marketing). We are happy to have both SPD and SPM students enrolled in these courses. Since these courses are being developed specifically for SPM and SPD students, there is no need for pre-reqs for your students.

The first course will be starting this fall term 2015, and being offered as an experimental course number for this year (HPHY 610 Human Performance and Sport Products), as a 3 credit course which will meet Thursday's from 6-9pm. Attached is a draft syllabus. We will be submitting the course proposal to the College of Arts and Science Curriculum Committee for their fall review by their October 7 deadline, and so we anticipate it will have a hard number HPHY 631 by fall term 2016. We will offer this course continuously, every fall.

The second course will be started winter term 2017 (the 2016-17 academic year). It will be submitted for a hard number (HPHY 632) later this year, and offered continuously, every winter. It is currently being discussed and development.

Sincerely,

John R. Halliwill, PhD
Professor of Human Physiology
Associate Head and Curriculum Director

DEPARTMENT OF HUMAN PHYSIOLOGY

1240 University of Oregon, Eugene OR 97403-1240

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HPHY 610: Human Performance and Sport Products

Class Meetings:

Thursdays
6:00 – 9:00
Skidmore 375
White Stag Block

Professor:

Brad Wilkins, PhD
Phone
Other-email@uoregon.edu

Office Hours:

By appointment

Course Overview

This course is a focused exploration of the core sciences of human performance: physiology and kinesiology, which inform the Sports Product Industry at the level of product development, product design and marketing. Key challenges to human performance, including balancing work and energy, heat stress, cold stress, water loss, fatigue, and the interplay between the athlete and their clothing, footwear, and equipment in multiple-dimensions will be studied from the scientist's perspective and through case studies.

The course objectives are:

- Learn the core scientific concepts, core measurement techniques, and language that describe the limits of, or defines human performance in sport.
- Learn how to identify problems associated with human performance across environmental conditions, sports, and participants.
- Learn to communicate effectively regarding issues of human performance across disciplines and audiences.
- Learn to think critically about scientific principles and product claims as relevant to the Sports Product Industry.

Course Approach

Students will learn how scientists think about the limits to human performance and will be able to apply what they've learned during their graduate program. The approach includes (but is not limited to):

- Lectures on core scientific concepts related to human performance
- Case Studies to promote critical evaluation of scientific concepts
- Identifying problems to solve with product solutions
- Readings to provide background on core concepts
- A laboratory visit
- Final Project
- Exams

This course incorporates both individual and team efforts. The team efforts will challenge students with complexity, ambiguity and the critical evaluation of the context surrounding the problems to be solved by sports products.

Course Materials

The course website on Canvas provides information and content for the entire course. You will find all materials for the course including; glossary of terms, assigned readings, project descriptions, and study guides. Each assignment will be clearly posted with instructions and due date on the Canvas website.

Lecture materials will be posted on canvas by the Wednesday evening before each class.

Course Calendar

Date	Topic
1. Oct. 1	Course Introduction and Overview Integration of science and innovation in the sport product industry Read: Article #1 and Article #2 and browse Glossary of science terms
2. Oct. 8	Limits of human performance, exercise capacity, and the relationship between work and energy Read: Article #2 and Article #3 Glossary of science terms exam Case Study #1
3. Oct. 15	Environmental influence on human performance: Heat and humidity Read: Article #4 Case Study #2 Exam 1
4. Oct. 22	Environmental influence on human performance: Cold, Wet, and Altitude Read: Article #5 and Article #6 Case Study #3 Exam 2
5. Oct. 29	Biomechanics of human movement (including lab demonstration and tour at Bowerman Sports Science Clinic in Eugene) Read: Article #7 Exam 3
6. Nov. 5	Fatigue and its impact on performance Read: Article #8 Case Study #4 Exam 4
7. Nov. 12	Recovery & Training Read: Article #9 and Article #10 Case Study #5 Exam 5
8 Nov. 19	Sensor technology and measuring human performance Read: Article #11 Case Study #6 Exam 6
9. Dec. 3	Final presentations

Course Assignments, Grades, and Hours

HPHY 610 - Assignments	Grading Basis	Points	Dates	Hours Student Engaged				
				Classroom attendance	Assigned Readings	Preparation / Study	Writing Assignments	Total hours associated with assignment
1. Preparation, Participation and Attendance	Individual	80	Every Class 10/1 – 11/19	27	18			45
2. Glossary Exam	Individual	20	10/8	1	1	2		4
3. Topic for Final Project	Team	10	10/15				1	1
4. Jobs to be done analysis on project topic.	Team	50	11/5				4	4
5. Weekly Exams	Individual	180	First 30 min of each class 10/15 -11/19			18		18
6. Case Study Presentations	Team	60	Each class	6	6			12
7. Final Project Report	Team	50	Tuesday 11/24				18	18
8. Final Project Presentation	Team	50	12/3			18		18
Total		500		34	25	38	23	120

Grade	4.0 Scale	Course Points	Percent
A+	4.0	485-500	97-100
A	4.0	465-484	93-96
A-	3.7	450-464	90-92
B+	3.3	435-449	87-89
B	3.0	415-434	83-86
B-	2.7	400-414	80-82
C+	2.3	385-399	77-79
C	2.0	365-384	73-76
C-	1.7	350-364	70-72

Assignments

1: Class Attendance/Participation (80 pts, assessment starts Thurs 10/1 and ends on Thurs 12/3)

A large amount of your learning will come from attending and participating in the class discussions and case studies. Your participation will be evaluated in how you 'show up' for class as well as the questions you ask and your involvement in class discussions.

2: Glossary Exam (20 pts, Exam on Thurs 10/8 at the beginning of class)

Prior to the second class you will be asked to know the definitions of scientific terms used to describe human performance (Glossary of Terms) which is available in Canvas.

Your course learnings and discussion will be more meaningful with a good understanding of the 'language' used by scientists in the Sports Product industry.

An exam at the start of the second class (Mon 10/8) will test your knowledge of these terms.

3: Topic for Final Project (10 pts, due in class of Thurs. 10/15)

See description of Final Project below. Your team must decide on a topic for the final project by 10/15 and be prepared to discuss the general topic in class that day.

We will discuss each team project topics during class on Thurs. 10/15.

4: Job to be done analysis for final project (50 pts, due during class on 11/5).

After identifying the project topic, your team will be required to analyze the jobs required to be done for any potential solution to be affective. During the first week in class we will cover the "jobs to be done" concept and how to complete this analysis.

5: Exams (30 pts for each exam, each week starting Thurs. 10/15)

Instead of one or two large exams, this course will include six exams starting 10/15 and occurring each week until 11/19. Each exam will be 15 multiple-choice questions (2 pts each) and will cover the scientific concepts discussed during the previous week. The grades from the multiple choice exams will be the majority of the individual grades for this course.

7: Case Studies (10 pts for each case study presentation)

Starting 10/8, we will go through several case studies, each week, describing specific sporting events or challenges to human performance. These case studies will describe the context surrounding the situations and challenge you to take a holistic (or integrated) approach to understanding and solving the needs of the athlete.

Each team will go through the case study, establish the important scientific concepts and principles, understand the context surrounding the situation and how the specifics of the situation will impact the performance of the individuals involved. Teams will be required to identify the stress and strain on the individual athlete, and describe possible interventions that could alleviate (or at least mitigate) the strain

on the competitors. Following this analysis as a team, each team (all members of the team) will present the cases to the rest of the class. They will describe the context, the strain on the athletes and how this will impact performance. They will then take the class through the conclusions and potential interventions that they came up with. Further specific requirements of the case studies will be discussed in class.

10: Final Project (paper due on Canvas Tue. 11/24 11:59pm, presentation on Thurs. 12/3 during class)

For the final project, each team will decide on a major sporting event or sporting endeavor that significantly challenges the limits of human performance. For example, the 150-mile marathon across the Sahara desert or crossing the Arctic. This can be any major sporting event, but must be a challenge to the limits of human performance. As we discuss the topics your team has come with (due 10/15), your team may be asked to refine your topic to significantly challenge the athletes involved.

Write a paper due electronically in Canvas by Tues. 11/24 by 11:59pm.

A team presentation of the final project (15 minutes, + 5 minutes of discussion) to the class and a Project Review Board will occur during class on 12/3.

The expectations for a successful project include the following:

- In detail, describe the conditions and the context surrounding the topic. This will include, but is not limited to, environment and other conditions, course, pace, tasks needed to be completed, etc. For example, provide evidence (and source) for average temperature for the Sahara desert (day and night temps.) for the event.
- In detail, describe the physiological and/biomechanical challenges of the event and how these will impact the performance of participants. It is required that these be “backed up” with appropriate references.
- From the description and the challenges to the participants, complete a “jobs to be done” analysis of the event. This is due during class on 11/5.
- Determine a solution or intervention to a problem(s) defined by the above analyses. Develop a product idea around this solution. The product idea should include design and functional outcomes.
- In detail, describe how your product solution will alleviate or mitigate the major issues on the athletes participating in your topic event.
- Provide a plan for testing the effectiveness of your product solution and the expected outcomes or plan for iterating on the solution.
- Paper should also include visual representations of the industrial design, function, and artistic design of the product.
- Generally, your team paper and presentation should include what you learned in this course. Your grade will be a reflection of how well you thought through the entire process, understand the physiological and biomechanical limitations, and your thought process around creating potential solution.



UNIVERSITY OF OREGON

Architecture and Allied Arts Library
1299 University of Oregon
(205C Lawrence Hall)
Eugene, OR 97403

January 12, 2016

Library Support / Sports Product Design

Dear colleagues:

I'm pleased to write a statement of support for the innovative Sports Product Design graduate program planned for the University of Oregon's Portland site. In the context of library resources already supporting the university's design programs and affiliated areas, the supplemental support requested for this program seems more than adequate for its specialized needs.

For over a century now, the UO Libraries has provided support for the academic programs offered by the School of Architecture and Allied Arts (A&AA). This historical perspective is relevant as all design research builds upon past efforts. Art and architectural library holdings number about 140,000 print volumes, principally located in the Architecture and Allied Arts Library. There are, of course, proliferating numbers of electronic book and periodical resources as well as other formats of relevance. Not insignificant is the increasingly efficient capabilities of interlibrary loan services to obtain resources from other libraries. In that regard, the Orbis-Cascade Alliance (commonly called 'Summit') -- a consortium pioneered by the UO Libraries -- brings within easy reach of faculty and students the academic library holdings of Pacific Northwest.

In terms of dollar amounts, the \$5,000 proposed for additional library support for the Sports Product Design program should be sufficient to address start-up needs, as well as provide some leeway for acquiring other resources to be identified as the program evolves and the specialized interests of its students become known. Periodical subscriptions can be expensive and subject to unpredictable cost increases, and non-book media of value to visual artists, such as DVDs, streaming video, and product samples, can be pricey as well. Approximately \$280,000 is currently allocated for library acquisitions directly supporting the A&AA's academic programs and of that approximately \$140,000 supports the "allied arts" design programs of the school. The Product Design program currently has an allocation of \$4,800. The collaborative, interdisciplinary nature of the proposed Sports Product Design program suggests that the library resources which support human physiology, business, and journalism programs will be employed to some extent to support this emerging initiative.

Karen Munro, head of the Portland Library and Learning Commons, and I have consulted with Susan Sokolowski to identify basic information needs for this new program. It is my assessment that the core collection currently exists with a few exceptions. The additional library funds requested in the proposal is a reasonable amount that will ensure that this strategically important and unique endeavor succeeds.

Edward H. Teague

Head, Architecture and Allied Arts Library
and Professor

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F (541) 346-3485

BRANCH LIBRARIES
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Allied Arts Library,
Lawrence Hall
(541) 346-3637
F (541) 346-2205

John E. Jaqua Law Library,
Knight Law Center
(541) 346-3088
F (541) 346-1669

Mathematics Library,
Fenton Hall
F (541) 346-3023

Science Library,
Onyx Bridge
(541) 346-3075
F (541) 346-3012

Lloyd and Dorothy
Rippey Library,
Oregon Institute of
Marine Biology,
Charleston
(541) 888-2581
F (541) 888-3250

Architecture Library,
Portland
(503) 725-8742
F (503) 725-8406

Subject: Cluster of Excellence Faculty Hiring Process

Date: Friday, June 6, 2014 at 8:15:59 AM Pacific Daylight Time

From: Provost Office

To: Wonhee Arndt



I am extremely pleased to announce the outcome of the 2014 Cluster of Excellence Faculty Hiring process. In addition to congratulating the authors of the ten proposals chosen to form the *high priority* funding list, I would like to extend my sincere thanks to all of the groups who submitted proposals and helped with the review process.

There were 34 proposals submitted to the Cluster Hire process, representing a very wide swath of the university. The proposals were reviewed independently by three groups: the Research Advisory Board, the Faculty Advisory Council and the Academic Leadership Team. Proposals were evaluated primarily on the basis of:

1. Ability to achieve national or international pre-eminence
2. Potential to build on and connect existing strengths
3. Strong likelihood of improving academic benchmarks.

Proposals were also reviewed on the basis of:

1. Enhancement of cross-disciplinary collaboration
2. Building a diverse and inclusive faculty and student body
3. Quality of hiring plans and potential to meet stated goals and priorities
4. Enhancing campus leadership in a field of study.

Based on the three independent reviews we have identified ten proposals as the *highest priority* list for Cluster of Excellence Faculty Hiring over the next three years. There was substantial concurrence across the reviewers that these ten proposals had the highest potential for fulfilling the objectives for this first round of faculty hiring. We will pursue funding for these proposals using all available sources and expect to fund several of them through a combination of philanthropy and institutional sources. The ten *highest priority* proposals, in alphabetical order, are:

- Center for Genome Function. Primary coordinator: Eric Selker.
- Faculty Cluster in Chemistry and Physics to Amplify Excellence in Energy and Sustainable Materials. Primary coordinators: James Hutchison and Andrew Marcus.
- Health Promotion, Obesity Prevention, and Human Development. Primary coordinator: Elizabeth Stormshak.
- Integrated Analysis of Biological Networks. Primary coordinator: William Cresko.
- Life at Nanoscale. Primary coordinators: Brad Nolen and Ken Prehoda.
- Neurons to Minds. Primary coordinator: Ed Awh.
- Prevention and Intervention Sciences in Special Education. Primary coordinator: Christopher Murray.
- Securing National Prominence in Volcanology, Volcanic Hazards, and Geothermal Energy. Primary coordinator: Paul Wallace.
- Sports Product Initiative. Primary coordinator: James Bean.
- Sustainable Cities Initiative Research Hub. Primary coordinators: Nico Larco and Marc Schlossberg.

The review committees and I found substantial merit among the proposals that did not make the high priority list. Not making the top list does not mean those ideas for cluster hiring will be ignored. Cluster Hire proposals not on the *high priority* list may still be funded through specific philanthropic gifts and we will be working with the Office of Advancement and individual schools and colleges to make sure that those ideas are part of our larger fundraising

campaign goals. The full list of cluster of excellence submissions will be an invaluable asset to us as we move forward.

Please join me in thanking all of the contributors to the process, as well as the many people involved in the review process. And please join me in congratulating the ten excellent proposals that were chosen for *high priority* listing.

Sincerely,

Scott Coltrane
Senior Vice President and Provost



UNIVERSITY OF OREGON

June 5, 2014

James Bean
Lundquist College of Business
108A Peterson Hall

Dear Jim,

I write to you as the primary coordinator of the Cluster of Excellence Faculty Hiring proposal entitled Sports Product Initiative.

There were 34 proposals submitted to the Cluster Hire process, representing a very wide swath of the university. The proposals were reviewed independently by three groups: the Research Advisory Board, the Faculty Advisory Council and the Academic Leadership Team. Proposals were evaluated primarily on the basis of:

1. Ability to achieve national or international pre-eminence
2. Potential to build on and connect existing strengths
3. Strong likelihood of improving academic benchmarks.

Proposals were also reviewed on the basis of:

1. Enhancement of cross-disciplinary collaboration
2. Building a diverse and inclusive faculty and student body
3. Quality of hiring plans and potential to meet stated goals and priorities
4. Enhancing campus leadership in a field of study.

Based on the three independent reviews we have identified ten proposals as the *highest priority* list for Cluster of Excellence Faculty Hiring over the next three years. There was substantial concurrence across the reviewers that these ten proposals had the highest potential for fulfilling the objectives for this first round of faculty hiring. We will pursue funding for these proposals using all available sources and expect to fund several of them through a combination of philanthropy and institutional sources.

We congratulate you and all of the authors of your proposal. Your submission was chosen as one of the ten *high priority* proposals. We will make a public announcement of all ten *high priority* Cluster of Excellence proposals in the very near future.

With success comes responsibility. Over the next few weeks we will reach out to you to help us with revisions and refinements to your proposal to ensure that your proposal

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aligns with other campus objectives and that cost estimates and hiring plans are feasible. This will require some work on your part, but it is essential that we be able to represent your ideas for building faculty clusters of excellence as accurately and realistically as possible.

Congratulations again, and thank you for submitting a promising proposal. We look forward to working with you and the Lead Dean to refine your proposal to enhance its chances for funding moving forward.

Sincerely,



Scott Coltrane

Senior Vice President and Provost

Cc: Kees de Kluyver, Dean, Lundquist College of Business
Frances Bronet, Dean, School for Architecture and Allied Arts
Brad Shelton, Interim Vice President for Research and Innovation
Jamie Moffitt, Vice President for Finance and Administration
Michael Andreasen, Vice President for Advancement
President Michael Gottfredson

SUSAN L. SOKOLOWSKI, Ph.D.

1950 SE Larch Avenue
Portland, Oregon USA
503-799-6634

ssokolow@uoregon.edu

OVERVIEW

- Twenty eight years of performance sporting goods experience; working cross-functionally between footwear, apparel and equipment in creative and strategic roles.
- Internationally recognized for achievements in product design and innovation; including the Design Museum London, 24+ utility patents, awards from the United States Olympic Committee and Volvo.
- Entrepreneur by nature, have established and managed several successful innovation and research organizations at leading sport companies, including Nike, Gravis and FILA.
- Motivational coach and mentor; committed to inspiring students in product design and business.

EDUCATION

Ph.D. University of Minnesota, St. Paul Minnesota USA
December 1999

Major: Design, Housing and Apparel

Minor: Kinesiology

Dissertation: A methodology to describe the morphology of the foot: application for women's footwear.

M.A. Cornell University, Ithaca, New York USA
May 1996

Major: Textiles and Apparel

Minor: Human Factors Engineering

Thesis: Aircrew arm coverage designs for the prevention of arm pain in high performance tactical aircraft based on arm mobility, hand dexterity, grip strength and comfort analysis.

B.F.A. Fashion Institute of Technology, New York, New York USA
May 1990

Major: Apparel Design

Minor: Apparel Production Management

Specialization: Children's Active Sportswear and Knitting

EDUCATION (continued)

B.S. Honors Nottingham Polytechnic, Nottingham England

Fall 1989

Major: Knitwear Design

PROFESSIONAL EXPERIENCE: ACADEMIC

Associate Professor

August 2015 to Present

Sports Product Design

University of Oregon, Portland, Oregon USA

Responsibilities include: tenure-track Associate Professor in the new Sports Product Design Program, Director of Product Design Portland Program and Co-Director of the Sports Product Institute.

Adjunct Professor

March 2011 to Present

Product Design

University of Oregon, Eugene, Oregon USA

Responsibilities include: developing and teaching the Senior Studio class, for the University's Product Design program. The class explores problems that stress design development through innovation and the responsibility to solve complex societal, functional and aesthetic issues. In 2015, will commence a new class around Thesis research, related to design.

Adjunct Professor

April 2004 to Present

Department of Design and Human Environment

Oregon State University, Corvallis, Oregon USA

Responsibilities include: developing and teaching a bi-annual sports product design & merchandising class to students in Apparel Design, Merchandising and Engineering. Also teach Apparel draping and advise graduate student thesis projects at the Masters and Doctoral level.

Adjunct Professor

October 2013

Department of Design, Housing and Apparel, College of Design

University of Minnesota, St. Paul, Minnesota USA

Responsibilities included: developing and teaching a sport product design & merchandising class to students in Apparel Design, Merchandising and Engineering.

PROFESSIONAL EXPERIENCE: ACADEMIC (continued)

Design Instructor

Summer 2004

College of Design Summer Camp

University of Minnesota, Minneapolis, Minnesota USA

Responsibilities included: developing a weeklong summer camp program for teens, to learn about footwear design. Students designed and constructed 3D prototypes of their ideas and hosted a gallery show at the end of the camp.

Design Instructor

October 2002 to 2004

Arts and Communication High School, Beaverton, Oregon USA

Responsibilities included: creating a liaison between Nike product designers and high school students at the ACHS, through Nike's ArtREACHout program. Taught a semester long class in holistic product design from how to research to building 3D prototypes.

Teaching Associate

January 1996 to May 1997

Department of Design, Housing and Apparel, College of Human Ecology

University of Minnesota, St. Paul, Minnesota USA

Responsibilities included: teaching and development of undergraduate courses in Clothing Design. Advisor of the Clothing Design Club, a group that annually produces a fashion show where graduating seniors exhibited their work to the public.

Research Assistant

January 1995 to June 1996

Department of Kinesiology, College of Education

University of Minnesota, Minneapolis, Minnesota USA

Responsibilities included: development and implementation of a Human Factors graduate minor program at the University.

Teaching Assistant

September 1992 to September 1996

Department of Design, Housing and Apparel, College of Human Ecology

University of Minnesota, St. Paul, Minnesota USA

Responsibilities included: teaching and development of undergraduate courses in Clothing Design.

Research Assistant

September 1992 to September 1995

Department of Design, Housing and Apparel, College of Human Ecology

University of Minnesota, St. Paul, Minnesota USA

Responsibilities included: functional clothing research with industry client, Swede-O, Inc (an ankle brace manufacturer).

PROFESSIONAL EXPERIENCE: ACADEMIC (continued)

Research Assistant

January 1992 to September 1992

Department of Textiles and Apparel, College of Human Ecology

Cornell University, Ithaca, New York USA

Responsibilities included: functional clothing design research with industry clients: IBM (clean room suits), United States Army (chemical and biological warfare protection), and the United States Department of Defense (anti-G protection).

Teaching Assistant

September 1990 to January 1992

Department of Textiles and Apparel, College of Human Ecology

Cornell University, Ithaca, New York USA

Responsibilities included: teaching undergraduate courses in Apparel Design.

COURSES TAUGHT

University of Oregon 2011 to present

- Thesis Research
- Senior (BFA) Thesis Studio
- Senior Studio: Track & Field Products
- Senior Studio: Music Maladies

Oregon State University 2005 to present

- Apparel Draping
- Functional Design of Sports Product

University of Minnesota 2004 & 2013

- Sports Product Design
- Design Camp: Product Design for Walking

Arts and Communications High School 2002 to 2004

- Product Design for Dance
- Product Design for Sport

University of Minnesota 1992 to 1996

- Clothing Assembly Fundamentals
 - Clothing Design For Special Needs
 - Pattern Development I
 - Pattern Development II
 - Apparel Analysis
 - Human Body Garment Interface
-

COURSES TAUGHT (continued)

Cornell University 1990 to 1992

- Apparel Construction
- History of Women's Dress
- AutoCAD
- Advanced AutoCAD
- Functional Apparel Design
- Advanced Functional Apparel Design

PROFESSIONAL EXPERIENCE: INDUSTRY

Innovation Project Director

October 2006 to Present

Apparel Innovation

NIKE Inc., Beaverton, OR

Manage key innovation projects within Nike's Global Apparel organization (over \$5 billion annually). Restructured organization's innovation process (Game Plan) to include commercial (in-line) and elite athlete innovation to increase awareness, Return On Investment (ROI) and resource efficiency. Influence and communicate long-term corporate technology portfolio to senior management team, business leaders, brand management and finance. Integrate and facilitate multi-faceted teams of merchandisers, designers, project managers, and testing resources internally and externally to insure adoption of innovation from seasonal kick-off to retail launch. Key areas include: Global Football/Soccer (World Cup), NFL/College Football, Olympics: Track & Field, Women's Sport Support (sport bras), Thermoregulation (Dri-FIT 360°) and Impact Protection (Nike Pro Combat).

Advanced Innovation Senior Designer

January 2002 to October 2006

Women's Footwear Division

NIKE Inc., Beaverton, OR

Established and implemented innovation research agendas for Nike's new Women's Footwear

Division, including running, training and walking (\$197 million globally). Identified new business opportunities and created innovation platforms, including SHOX for Her (over 7 million pairs sold). Devised best practices and marketing collateral to communicate internally and externally the unique benefits of Nike's footwear innovation for female athletes.

PROFESSIONAL EXPERIENCE: INDUSTRY (continued)

Senior Designer

June 2001 to January 2002

Equipment Division - NikeTrainingGear

NIKE Inc., Beaverton, Oregon USA

Responsibilities included: being the creative lead of Nike's new fitness equipment business. Global line included: gloves, medical/athletic braces, yoga, strength, stretching and balance training products. Major accomplishments include the creation of one-piece protective fitness training gloves, weight belts, seamless medical/athletic braces, and innovations for grip strength and balance training.

Senior Designer

November 1998 to June 2001

Equipment Division – Soccer

NIKE Inc., Beaverton, Oregon USA

Responsibilities included: Nike's "FootballZeroTwo" (World Cup) equipment creative director. Provided direction to 5 global product teams (Accessories, Bags, TechLab, Timing & Vision). Also participated on the image direction team for Nike's \$100 million "FootballZeroTwo" campaign. Lead product researcher & designer of Nike's global soccer equipment line. Line included: goalkeeper gloves, shin guards, balls and bags. Major accomplishments include: Nike's 1st and 2nd English Premier League ball collections, Nike's 1st Manchester United equipment collection, child-specific soccer equipment (i.e., shin sock and 290 gm ball), the Brasilia bag line (Nike's most profitable bag line), the "Kraken" goal keeper glove (the glove that Nike pro keepers wear), and the growth of Nike's shin guard business to #1 globally. Also designed and developed customized products for Nike-signed athletes, such as: Ronaldo, Nakata, Kasey Keller, Edgar Davids, Alex Manniger and Thomas Sorrenson.

Consultant

May 1998 to January 1999

Footwear Research and Design

Burton Snowboards, Burlington, Vermont USA

Responsibilities included: collaborative effort with Burton's 2001 boot design team to research and establish design criterion for a line concept based on the rider's ability to "drive" his or her boots. Criterion were rooted in the study of foot proprioception, where the boots and liners designed could provide pressurized feedback onto foot, so the rider can adapt and adjust his/her movement to better drive snowboarding equipment (boots, bindings and board) over variable terrain.

PROFESSIONAL EXPERIENCE: INDUSTRY (continued)

Consultant

May 1998 to January 1999

Footwear Research and Design

Gravis Footwear, Burlington, Vermont USA

Responsibilities included: participation on the team of consultants who created the 1st Gravis (a business owned by Burton Snowboards) footwear line. Was primarily responsible for Gravis' consumer market and footwear sizing research. Designed and developed the Gravis last – a last built specific to the anatomy and performance needs of a skateboarder's/snowboarder's foot.

Materials Research Manager

June 1997 to May 1998

Footwear Materials

FILA Sports Inc., Portland, Oregon USA

Responsibilities included: establishing FILA's global footwear materials library and research department. Responsibilities included: sourcing, research, database development and selection of materials for all footwear product categories. Also designed and developed footwear fabrication concepts that enhanced athlete performance and re-thought footwear production processes (i.e., Tri-Layer System®).

Testing Manager

June 1997 to February 1998

Footwear Fit and Field Testing

FILA Sports Inc., Portland, Oregon USA

Responsibilities included: establishing FILA's footwear fit and field-testing department at Portland's advanced footwear design office. Managed fit and field testers and integrated with athletes, designers and developers to ensure product performance needs.

Textile Technologist

June 1991 to August 1994

U.S. Department of Defense

Naval Air Warfare Center, Warminster, Pennsylvania USA

Researched, designed and developed anti-G and chemical/biological/radiological warfare protection. Major accomplishments include: a customized, gel-based blood pooling prevention system for the upper limbs and a non-helmeted oxygen mask retention system for F-18 and "beyond" pilots.

PUBLICATIONS

Patents (pending & published)

_US 6944884 Glove with web structure

_US 7934325 Gymnastics footwear

_US 7941939 Midsole IMPAX element for footwear

_US 7334349 Midsole IMPAX element for footwear

_US 7637033 Midsole IMPAX element for footwear

_US 7640679 Midsole IMPAX element for footwear

_US D498914 Portion of SHOX shoe midsole

_US D499248 Portion of SHOX shoe midsole

_US D510472 Portion of SHOX shoe midsole

_US D500402 Portion of SHOX shoe midsole

_US 6895598 Protective weightlifting glove

_US-2010-0095550 Footwear with textile upper

_US-2010-0024100 Apparel with attach/detach elements

_US-2010-0139119 Dance shoe

_US-2009-0031486 Base layer including thermal zones

_US-2009-0133181 Apparel with enhanced body position feedback

_US-2009-0098803 Athletic bra

_US-2008-0110049 Footwear with flat knit upper

_US F12/987235 Moisture management support garment

_US F12/777788 Global positioning system garment

_US F13/222056 Footwear with biased heel device

Patents (continued)

_US F60/714518 Impact attenuating elements

_US F13/105092 Midsole element for footwear

_US F12/907482 Grooved support sport bra

Abstracts

Sokolowski, Susan L. (October 1999). Findings from developing a methodology to describe the morphology of the female foot. Proceedings of the International Textiles and Apparel Association, Santa Fe, New Mexico USA, 55.

Sokolowski, Susan L. (August 1996). The T-shirt project. Proceedings of the International Textiles and Apparel Association, Banff, Canada, 53.

Sokolowski, Susan L. (August 1996). Justification for developing a methodology to describe the morphology of the female foot. Proceedings of the International Textiles and Apparel Association, Banff, Canada, 53.

Sokolowski, Susan L. and LaBat, Karen (October 1995). Images in sport, part I. Proceedings of the International Textiles and Apparel Association, Pasadena, California USA, 52.

Sokolowski, Susan L. and LaBat, Karen (October 1995). Images in sport, part II. Proceedings of the International Textiles and Apparel Association, Pasadena, California USA, 52.

Sokolowski, Susan L. and LaBat, Karen (October 1995). What do Snow White and Sleeping Beauty have to do with clothing design students? Proceedings of the International Textiles and Apparel Association, Pasadena, California USA, 52.

Sokolowski, Susan L. (October 1994). Elastics: what should the product designer know? Textile Technology Forum '94, Industrial Fabrics Association International, Indianapolis, Indiana USA.

Sokolowski, Susan L. (October 1994). Development of aircrew arm coverage designs for the prevention of arm pain in high performance tactical aircraft based on arm mobility, hand dexterity, grip strength and comfort analysis. Proceedings of the International Textiles and Apparel Association, Minneapolis, MN USA 51, 104.

LaBat, K.L., Sokolowski, S.L. and Lee, M.Y. (November 1993). Textile product redesign based on textile product failure. Proceedings of the International Textiles and Apparel Association, Green Briar West Virginia USA 50, 73.

Abstracts (continued)

Sokolowski, Susan L. (October 1992). The development of a women's karate uniform based on physiological and anthropometric analysis. Proceedings of the International Textiles and Apparel Association, Columbus, Ohio USA 49, 112.

Sokolowski, S.L, Freitas, A.J. & Sanderell, M. M. (October 1992). Mop & go. Proceedings of the International Textiles and Apparel Association, Columbus, Ohio USA 49, 135.

Sokolowski, Susan L. (October 1991). Wedding glow. Proceedings of the International Textiles and Apparel Association, San Francisco, California USA 48, 258.

Citation in a Book

Sokolowski, Susan L. & LaBat Karen (2012). "Olympic Dress, Uniforms, and Fashion." The Berg Fashion Library. August. <http://www.bergfashionlibrary.com/view/bewdf/BEWDF-v10/EDch10412.xml>.

Sokolowski, Susan L. (2010). "Dress for Recreational Sports and Professional Sports". Berg Encyclopedia of World Dress and Fashion. Volume 3. Berg Publications: London, England.

Sokolowski, Susan L. (2004). "Sneakers". Encyclopedia of Clothing and Fashion. New York: Scribner's.

Sokolowski, Susan L. (2004) "Sport Uniforms". Encyclopedia of Clothing and Fashion. New York: Scribner's.

Sokolowski, Susan L. (1995). "Protection from gravitational forces". In Susan M. Watkins, Clothing: the portable environment. Iowa State University Press.

Invited Presentations

Sokolowski, Susan L. (October 2013). "Equipping athletes for success." Cornell University, Ithaca, New York USA.

Sokolowski, Susan L. (October 2013). "Design intersections: equipping athletes for gold." University of Minnesota, Minneapolis, Minnesota USA.

Sokolowski, Susan L. (October 2009). "Innovations in sports apparel." Presentation for the AATCC Innovations in Functional Materials, Sports & Defense Technologies, and Composites Symposium. Greenville, South Carolina, USA.

Invited Presentations (continued)

Sokolowski, Susan L. (May 2008). "Developing innovative textile products: How we just do it." Opening Presentation for Techno Textiles: Inner Space to Outer Space Exhibition. Goldstein Gallery, University of Minnesota, St. Paul, Minnesota, USA.

Sokolowski, Susan L. (April 2004). "Product development." Presentation for Dr. Karen LaBat's Class: Product Development, at The College of Human Ecology, University of Minnesota, St. Paul, Minnesota USA.

Sokolowski, Susan L. (April 2000). "Development of a Methodology to Understand the morphology of the human foot for footwear." Presentation for Dr. Nancy Staples' Fit Symposium at Clemson University, Clemson, South Carolina USA.

Sokolowski, Susan L. (February 2000). "Functional design." Presentation for Dr. Jeffery Allen McCubbin at the College of Health and Human Sciences, Oregon State University, Corvallis, Oregon USA.

Sokolowski, Susan L. (October 1999). "Industrial fabrics for sport." Presentation for Textile Technology Forum '99, Industrial Fabrics Association International, Orlando, Florida USA.

Sokolowski, Susan L. (March 1998). "Soccer equipment." Presentation for Dr. Karen LaBat's Class: Product Development at The College of Human Ecology, University of Minnesota, St. Paul, Minnesota USA.

Sokolowski, Susan L. (May 1995). "The dress of astronauts." Presentation for Dr. Joanne Eicher's class: Clothing and Human Behavior at the College of Human Ecology, University of Minnesota, St. Paul, Minnesota USA.

Sokolowski, Susan L. (November 1994). "Enhancing the dance." Presentation for The College of Human Ecology Benefactors prior to Mark Morris' dance production at Northrup Auditorium, University of Minnesota, Minneapolis, Minnesota USA.

Sokolowski, Susan L. (April 1993). "Dressing for sport: it's more than just a game." Curator's presentation for exhibit opening at the Goldstein Gallery, University of Minnesota, St. Paul, Minnesota USA.

Journals

Sokolowski, S. & LaBat, K. (2003). CHE alum at Nike corporate headquarters. Kaleidoscope (University of Minnesota, College of Human Ecology Magazine). Interview on relationship with university and job/career path.

Journals (continued)

LaBat, K. & Sokolowski, S. (1999). A three-stage design process applied to an industry-university textile product design project. Clothing and Textiles Research Journal, 17 (1), 11-20.

Sokolowski, Susan L. (1996). The T-shirt project. Monograph #8, Computer Applications for Textiles and Apparel. International Textile and Apparel Association, Monument, Colorado USA.

Geller, Nisa (1988, july). Kid's wear hits F.I.T. runway. (story of winning the Ellen Gang for KNITWAVES critic's award for children's wear design). Children's Business, 20.

Juried Exhibitions

Sokolowski, S.L, Freitas, A.J. & Sanderell, M. M. (October 1992). "Mop & go." Design Competition, International Textiles and Apparel Association, Columbus, Ohio USA.

Sokolowski, Susan L. (October 1991). "Wedding glow." Design Competition, International Textiles and Apparel Association, San Francisco, California USA.

Sokolowski, Susan L. (June 1990). "Technicolor Snow." Senior show at the Gallery of The Fashion Institute of Technology, New York, New York USA.

Sokolowski, Susan L. (November 1988). "Children's wear for Fall 1988." Runway show at the "Earnies" of designs selected by members of the Children's Apparel Industry, New York, New York USA.

Juried Presentations

Sokolowski, Susan L. (October 1999). Findings from developing a methodology to describe the morphology of the female foot. Proceedings of the International Textiles and Apparel Association, Santa Fe, New Mexico USA, 55.

Sokolowski, Susan L. (August 1996). The T-shirt project. Proceedings of the International Textiles and Apparel Association, Banff, Canada, 53.

Sokolowski, Susan L. (August 1996). Justification for developing a methodology to describe the morphology of the female foot. Proceedings of the International Textiles and Apparel Association, Banff, Canada, 53.

Sokolowski, Susan L. and LaBat, Karen (October 1995). Images in sport, part I. Proceedings of the International Textiles and Apparel Association, Pasadena, California USA 52.

Juried Presentations (continued)

Sokolowski, Susan L. and LaBat, Karen (October 1995). Images in sport, part II. Proceedings of the International Textiles and Apparel Association, Pasadena, California USA 52.

Sokolowski, Susan L. and LaBat, Karen (October 1995). What do Snow White and Sleeping Beauty have to do with clothing design students? Proceedings of the International Textiles and Apparel Association, Pasadena, California USA 52.

Sokolowski, Susan L. (October 1994). Elastics: what should the product designer know? Textile Technology Forum '94, Industrial Fabrics Association International, Indianapolis, Indiana USA.

Sokolowski, Susan L. (October 1994). Development of aircrew arm coverage designs for the prevention of arm pain in high performance tactical aircraft based on arm mobility, hand dexterity, grip strength and comfort analysis. Proceedings of the International Textiles and Apparel Association, Minneapolis, MN USA 51, 104.

LaBat, K.L., Sokolowski, S.L. and Lee, M.Y. (November 1993). Textile product redesign based on textile product failure. Proceedings of the International Textiles and Apparel Association, Green Briar West Virginia USA 50, 73.

Sokolowski, Susan L. (October 1992). The development of a women's karate uniform based on physiological and anthropometric analysis. Proceedings of the International Textiles and Apparel Association, Columbus, Ohio USA 49, 112.

Kiersten Muenchinger | Curriculum Vitae

Product Design Program
5282 University of Oregon
Eugene, OR 97403
541.346.6891
kiersten@uoregon.edu

Education

1998 MS in Mechanical Engineering in the Joint Program in Design, Stanford University, Stanford, CA
1994 Reynolds Scholar: The Bauhaus: Art, Design and Engineering, Technische Hochschule Rheinland-Westfalen & Fachhochschule Design, Aachen, Germany
1993 Honors, BA in Engineering Sciences, Dartmouth College, Hanover, NH

Academic Positions

2008-present Tim and Mary Boyle Chair in Material and Product Studies, University of Oregon
2008-present Associate Professor, Product Design, University of Oregon
2008-2015 Director, Product Design Program, University of Oregon
2005-2008 Assistant Chair, Industrial Design Department, California College of the Arts
2005-2008 Associate Professor, Industrial Design Department, California College of the Arts
2000-2005 Lecturer, Industrial Design Department, California College of the Arts
1998 Teaching Assistant, ME116C, Final Project, Stanford University
1996-1998 Teaching Assistant, Product Realization Labs, Stanford University
1990 Presidential Scholar: Science & Physics Pedagogy, Advisor Prof. Delo Mook, Physics, Dartmouth College

Professional Positions

2001-2009 Parapluie, Founder and President of paper product & stationery manufacturer
2006-2008 ASM The Materials Information Society, Regular Guest Instructor
1999-2001 Fitch, Inc., Design Engineer and Project Manager for biotech, logistics and automotive startups
1998-1999 The Long Now Foundation, Design Engineer for the 10,000 Year Clock
1997 Walt Disney Imagineering, R&D, Research Design Engineer for first untethered, robot animatronics
1996 Sottsass Associati, Designer under icon Ettore Sottsass of bathroom amenities and travel bags
1994-1995 IDEO Product Development, Design Engineer for medical devices and toys
1993 Ford Motor Company, Engineer for modified vehicles for emergency services and recreation

Research

Funded Projects/Grants

2015-2016 Fulbright US Scholar Award to Hong Kong; Hong Kong Polytechnic University; J. William Fulbright Foreign Scholarship Board
2015 Launch in the Rain, PI; VentureWell; \$34,000
2015 Designing for an Aging Population, Co-PI; National Institute for Transportation and Communities; \$39,914
2012-2014 Content in Context (C2) Partnership to Advance STEM Interconnected Learning and Career Interests, Biomimicry Lead; Source of Support: Oregon Math and Science Partnership Program (ESEA Title IIB MSP); Location: Various in Lane County; Total Award Amount: \$450,000; PIs: Chris Castillero (Eugene School District 4-J) and Dean Livelybrooks (University of Oregon)
2013 Manufacturing Revolutionary Sustainable Cups, PI; AAA Dean's Award; University of Oregon; \$4,500
2011 Creative Activity Award, UO AAA Dean's Office Research Grant; \$4,000
2011 Green Product Design Network, Co-Director for university-wide interdisciplinary green product development from molecule through manufacturing to marketing. Implementation of research, consulting, graduate and undergraduate courses in green product development; University of Oregon; \$55,000
2010 Green Product Design Network; University of Oregon; \$53,000
2009 Green Product Design Network; University of Oregon; \$50,000

Juried Exhibitions

2014 Show PDX, Portland, OR, October 1-13, Download Chair, with Trygve Faste

- 2013 Salão Design Casa Brasil, Bento Gonçalves, Brazil, August 13-16, Sticker Chair, with Trygve Faste
Digital exhibition: <http://www.salaodesign.com.br/blog/noticias/> 2013-present
- 2010 EcoTopia: Product Design for a Sustainable Society at Nectar, Long Beach, CA, March 15-April 15, Terra Preta Appliance for Dirt Fabrication, with Robin Hubbard
Digital exhibition: <http://www.nectardesign.com/ecotopia/> 2010-present

Juried Design Awards

- 2015 Green Product Award, Carbon6 Water Glasses
Shortlisted, Digital exhibition: <https://www.gp-award.com/en/produkte/carbon6-water-glasses>
- 2014 Lexus Design Award, Download Chair, with Trygve Faste
Shortlisted, Digital exhibition: <http://www.designboom.com/competition/lexus-design-award-2014/>

Peer-Reviewed Journal Articles

- 2013 Muenchinger, K. "Using Kansei-based metrics in conjunction with LCA Impact Factors to Enhance Sustainable Materials selection of Wood, Polymers and Metals," *The International Journal of Designed Objects*, 2013, Volume 6, Issue 3, pp.61-71.
- 2011 Muenchinger, K. "The Green Product Design Network: Focusing on the Role of Materials in Product Design," *Design Principles and Practices: An International Journal*, 2011, Volume 5, Issue 5, pp.215-222.

Peer-Reviewed Published Papers in Proceedings/Conference Presentations

- 2014 "Characterizing Perceptions of Material Sustainability through Drinking Vessels" Proceedings of International Conference on Kansei Engineering and Emotion Research (KEER); June 8-10, Linköping, Sweden, 2014
- 2013 "Combining Kansei Engineering and LCA to Convince Clients that Sustainable Polymer Choices Exist" Proceedings of IDSA National Education Conference; August 21, Chicago, IL, 2013
- 2012 "Using Kansei-based metrics in conjunction with LCA data for sustainable materials selection" Proceedings of International Conference on Kansei Engineering and Emotion Research (KEER), pp.97-203; May 22-25, Penghu, Taiwan, 2012
- 2012 "Using a Motion Analysis Lab to Test Biomimetic Designs," Biomimicry 3.8 Institute, editor. Proceedings of the Second Annual Biomimicry in Higher Education Webinar; January 21, 2012
- 2011 "Experimental Materials: Integrating Green Chemistry in Product Design" Proceedings of IDSA National Education Conference; September 14, New Orleans, LA, 2011
- 1997 "BIOculars: A Virtual Ecosystem for Wilderness Parks" Morke, J., Lindsay, J., Muenchinger, K., Chuieh, C., Russell, J., Vastola, T., Proceedings of CHI97 Conference on Human Factors in Computing Systems; Atlanta, GA, 1997

Peer-Reviewed Published Abstracts/Conference Presentations

- 2010 "Experiences in Learning Design: Mitigating Discomfort w. Drama" Presented at the 4th International Conference on Design Principles and Practices; February 13-15, Chicago, IL, 2010

Book Chapters

- 2010 Principles of Design with Restorative Dental Materials, In *Restorative Dental Materials*, 13th edition, chapter 3, Edited by Dr. Ronald Sakaguchi, DDS, MS, PhD, MBA, Professor of Dentistry, Professor of Management, OHSU; 2010

Invited Presentations/Lectures

- 2015 Panelist, "Designing the Future: How Materials Can Change the World", NPE International Plastics Showcase; Orlando, FL, March 26
Article: <http://knowledge.ulprospector.com/2281/pe-npe-design-panel-storytelling-emotion-help-drive-sustainability/>
- 2012 Lecture with Dr. Kelly Sutherland, "Understanding Science & Understanding Design through Lessons & Labs in Biomimicry", Comparing the success in learning outcomes that two interdisciplinary, upper-division, college-level courses involving Biomimicry achieved; National Biomimicry Education Summit, Portland, OR, June 23
- 2011 Lecture with Journalism Professor Kim Sheehan, "Perceptions of Green Product Design and Green Marketing", Presentation exploring materials, marketing and misconceptions about environmentally-friendly product design; Jordan Schnitzer Museum of Art, Eugene, OR, March 30

- 2010 Participant, PopTech Ecomaterials Innovation Lab, One of 40 international thought leaders in facilitated dialogue regarding the drivers, constraints, opportunities, and challenges surrounding next-generation sustainable materials; Boston, MA, July 20-23
- 2010 Panelist, Product Design and Green Chemistry in the GPDN, Green Chemistry in the PNW for Funders; Seattle, WA, March 9
- 2009 Lecture, Stanford Product Realization Lab Symposium, Hands-on labs and materials research; Stanford, CA, April 17
- 2005 Lecture and panelist, IDSA San Francisco Design Entrepreneurship Panel, Starting and running the design-centric business Parapluie; Palo Alto, CA
- 2003 Lecture, "Spinning the Product Design Cycle into a Product Production Cycle", Palo Alto Research Center (PARC); Palo Alto, CA

Other Professional Activities

- 2013 Instructor, Biomimicry and Design in K-12 STEM Education, Course on the foundations of Biomimicry and using design to facilitate science curriculum; Lane Education Service District, Eugene, OR, March 11 & August 6
- 2013 Session moderator, "Rules for breaking and keeping in Graduate Design Programs", IDSA International Conference: Breaking the Rules; Chicago, IL, August 20-24
- 2010 Participant, Sustainability in Higher Education Conversation, The Natural Step, Second Nature, AASHE; Portland & Eugene, OR, July 16
- 2005 Participant, MIT Summer Institute in the Materials Science of Material Culture, NSF-funded 2-week course hosted by Professor Heather Lechtman teaching the integration of materials science and anthropology/archaeological studies, an approach to making science engaging for humanities students; Cambridge, MA
- 2004 Participant, Sustainable Design Summit, The Natural Step & CCA; San Francisco, CA
- 2004 Participant, Workshop in materials selection and CES Edupack hosted by Mike Ashby; San Diego, CA

Teaching

Awards

- 2015 Top 30 Most Admired Educators, DesignIntelligence recognition for America's best architecture and design schools
- 2014 Oregon Women's Soccer Team Most Valuable Professor
- 2011 IDSA Young Educator of the Year Award, Industrial Designer's Society of America (IDSA) award for educator in the first 10 years of educational practice
- 2010 Guest Coach, Oregon Ducks Football Team

Funded Projects/Grants

- 2014 Antimicrobial Treatment Using Nanosilver, Co-PI; Oregon Nanoscience and Microtechnologies Institute (ONAMI); \$25,000
- 2014 LED Warehouse Lighting Fixtures, Co-PI; Portland Development Commission and LED Trail; \$25,000
- 2013 Wilsonart Café Chairs, PI; Wilsonart; \$11,000
- 2010 Streetlighting with Renewable Energy, PI; Eugene Water and Electric Board (EWEB) Greenpower Grant; \$25,000
- 2010 Energy Efficient Streetlighting Options for Salem, OR, Sustainable Cities Year Project, University of Oregon; \$1,000
- 2010 Design Curriculum, Princess Noura University, Riyadh, Saudi Arabia, Design of a Product Design department and 4-year BA degree; \$5,000
- 2009 Biomimicry: Biological Science Artfully Designed, PI; University of Oregon Science and Human Condition Grant; \$15,000

Workshops

- 2014 A&AA Innovation: The Flipped Classroom; for PD350, Objects & Impacts; \$2,500 grant
- 2013 A&AA Gen-Ed Workshop; for PD390, Epic Challenges and PD101, Intro to PD; \$2,500 grant

Courses

PD410 Epic Challenges; multi-disciplinary lecture and design studio exploring design thinking to solve problems with immediate global impact

2014W* topic: The Next Generation Condom, with Art Instructor John Park, 47 students

PD410 Biomimicry; multi-disciplinary design studio exploring the techniques and outcomes of Biomimetic design
2011S* 25 students

PD350 Objects & Impacts; lecture course in materials properties, manufacturing processes and design for manufacture

2015W topic: pet products: 48 students

2014W topic: toys that lift, 47 students

2013W topic: scales, 47 students

2012W topic: marine lights, 39 students + 3 students Portland experimental video conference

2011W topic: cordless power tools, 42 students + 3 students Portland experimental video conference

2010W topic: dispensers, 49 students + 2 students Portland experimental video conference

2009W* topic: microphones, 48 students

PD483 Personal Studio; design studio of products for personal use

2012F topic: Charcoal for Housewares, sponsored by Kingsford, 14 students

PD484 Corporate Studio; design studio of products with external business partners

2010S topic: Enabling Medical Carts with Tablets, Sponsored by Modo, with Assistant Professor John Arndt, 21 students

2009S* topic: Weird Extreme, Sponsored by Columbia Sportswear, 4 students

PD199 College Connections, Science of Design Freshman Interest Group (FIG); seminar connecting Introduction to Product Design and General Chemistry I, with Chemistry Assistant Department Head Julie Haack

2012F* topic: Science and Design of Athletic Shoes, 24 students

PD101 Introduction to Product Design; lecture and project course, introduction to design's critical inquiry with constraints, skills, communication and project work

2012F topic: Cornhole Boards, 87 students

2011F topic: Flexible PV products, 92 students

ART101 Understanding Contemporary Media; lecture course, introduction to Art concentrations

2009W Product Design in Art, with Art Assistant Professor Kartz Ucci and Art Professor Ken O'Connell, 250 students

PD340 Design for Use; lecture course in usability issues, constraints and techniques

2009F 53 students + 6 students Portland experimental video conference

2008F* with Assistant Professor John Arndt, 57 students

Clark Honors College Thesis Advisor; discipline-specific thesis advisor for University of Oregon CHC students

2015 Emma Dorland: Creative Nonviolent Action (*secondary advisor*)

2014 Elizabeth Zarro: Biomimicry in Homegoods

2014 Claire Sakaguchi: Needle Fear (*secondary advisor*)

2011 Sarah Morgan: Business Principles of Design Practice

2010 Jana Rogers: Design Process for Functional Aesthetics

PD406 Independent Study Advisor

2012W Justin Mellott: Flexible PV Products

2012W Curtis Logan Olson: Flexible PV Products

2011W Natasha Michalowsky: Sustainable Vessels

* newly developed courses

Invited Presentations/Lectures

- 2014 Panelist, Community Conversation: visions of disability studies; Disabilities Studies Forum 2014, University of Oregon, Eugene, OR, October 30
- 2014 Panelist with Adam Davis (moderator), Kim Patterson and Aric Wood, "UNITE: Designing the Future of Education", Discussing the paths forward in the higher education landscape that address tuition, jobs and new educational formats like MOOCs; Design Museum Portland, Portland, OR, July 17
- 2014 Lecture, "Biomimicry: Starting with Emulate", Dartmouth College, Hanover, NH, January 23
- 2013 Workshop Instructor, "Biomimicry in Design of Movement: The Next Spiderman", Tatung University, Taipei, Taiwan, December 8
- 2012 Speaker and panelist, "Biomimicry: Innovation Inspired by Nature", Case studies showing the effect of Biomimicry on innovation in Product Design studios; Oregon BEST FEST, Portland, OR, Sept 12
- 2011 Instructor, Science Program to Inspire Creativity and Excellence (SPICE) Camp, Course on product design and the principles of physics and materials science involved; University of Oregon, Eugene, OR, June 21
- 2010 Panelist, "Teaching Sustainability 2B Sustainable", Practices of UO Product Design integrating sustainable design into complete curriculum, IDSA National Conference: DIY Design; Portland, OR, August 8
- 2010 Lecture, "Setting the Stage: the Play of a New Design Program", IDSA Western District Conference: Make a Scene; Denver, CO, April 24-25
- 2004 Panelist, Compostmodern, the state of sustainable design as taught at CCA; San Francisco, CA
- 2003 Lecture, "The Materials Design Progression of the Terminator", California Polytechnic State University (CalPoly); San Luis Obispo, CA

Guest Lectures in UO

- 2015F "Perceptions of Plastic Products" in Dr. Julie Haack, Green Product Design lecture, Chemistry Department
- 2014F "Perceptions of Plastic Products" in Dr. Julie Haack, Green Product Design lecture, Chemistry Department
- 2014S "Sustainability Tactics in Design" in Bob Choquette, Sustainability Across Disciplines, LCB
- 2014W "Biomimicry" in Dr. Kelly Sutherland, Bioinspired Design seminar, CHC
- 2013F "Materials as Inspiration" in John Arndt, Introduction to Product Design, PD Program
- 2013F "Perceptions of Plastic Products" in Dr. Julie Haack, Green Product Design lecture, Chemistry Department
- 2013S "Biomimicry" in Dr. Kelly Sutherland, Bioinspired Design seminar, CHC
- 2013S "Origami for Biomimicry" in Wonhee Arndt, Biomimicry studio, PD Program
- 2013W "Perceptions of Plastic Products" in Dr. Julie Haack, Green Product Design lecture, Chemistry Dept.
- 2012S "Biomimicry" in Dr. Kelly Sutherland, Bioinspired Design seminar, CHC
- 2012W "Perceptions of Plastic Products" in Dr. Julie Haack, Green Product Design lecture, Chemistry Dept.

Juried Student Work Awards, UO

- Interzinc Design Challenge, National manufacturing design competition, 3 student winners annually; each student wins \$2,000; school/program represented wins \$1,000
- 2014 Derek Sackmann: The Falling Ball
- 2013 Tana Sollars: Plum Triple Beam Scale
- 2012 Hana Hiratsuka: Ship Light
- 2011 Teresa Hamje: Hedge Trimmer
- 2011 Daniel Nicholson: Mobius Hedge Trimmer
- 2010 Tara Nielsen: The Billow Napkin Dispenser
- 2009 Jessica Richards: Rock Band Microphone: Redesign

Ascent Solar Innovative Design Competition, National innovation design competition for new products using flexible solar panels, 10 student or student team winners of up to \$1,000 in prototype funding

- 2011 Justin Mellott: Solar Market Canopy
- 2011 Curtis Olson: Solar Bike Seat Cover

Juried Student Work Awards, Prior

- Interzinc Design Challenge
- 2008 Matt Martin: Water Wheel: A Water-Powered Rolling Lawn Sprinkler
- 2006 Noah Balmer: Bridgeport SS Kitchen Scale
- 2005 Jix Foo: Z3 Desktop Stapler
- 2005 Kristina Lee: The Shovellup Stapler

Dyson Eye for Why, National and International engineering and design competition for innovative housewares
Received \$1,000 for advising student Grand Prize winner
2005 Brandon Warren, A+O: Fruit Chiller; National Grand Prize, \$5,000, International Finalist
2005 Isamu Yoda: Moisture Keeper: Humidifier/Dehumidifier; National Second Prize, \$2,000
2005 Christine Miller: Acorn: Coffee Grinder; National Third Prize, \$1,000
2005 Jenny Olsen: Booie: Child's Nightlight; National Third Prize, \$1,000

Green Dollhouse Competition, National architecture and design competition to create dollhouses modeling sustainable architecture

2005 Rosie Hannah, Joanna Manders, Christine Miller: The Bamboo Loft; Student Merit Winner

designboom: WC Water Concept: Inside the Bathroom

2004 International industrial design competition to create multifunction showers, faucets or furnishings; 1,081 projects from 83 countries

Vivian Barad: Aqua Gauge, published

Kevan Hollenback: F6 Faucet, published

Michael Kuehl: Modular Faucet System, published

Frej Lotus: Aquasphere: The Glass Faucet, published

Scott Nevlin: Concrete Bathroom Furnishings, published

Joseph Petruzzelli: Faucet, published

Diana Yen: Sprout Faucet, published

Exhibitions of Student Work, UO

2010 Modo Inc. Headquarters, Tablet Computer Medical Cart product concepts

2009 Columbia Inc. Headquarters, Greater Outdoors product concepts

Service

Product Design Program Service, UO

2008-present Founding Director, Undergraduate Product Design Program, UO

Founding director of the Product Design Program in Eugene and in Portland; developing internationally recognized program in design, growing the program from 30 to 200 undergraduate students, hiring tenure and non-tenure related faculty, developing curriculum consistent with international design programs, developing facilities for studies and production, developing international exhibition practices

2008-present Standing Committee Member: Curriculum, Facilities, Faculty Review, Student Scholarships, Applicant Review, Exhibitions and ad hoc committees

2015 Chair, Faculty Search Committee, Product Design, Sports Product Design position, Hire: Associate Professor Susan Sokolowski

2015 Chair, Faculty Search Committee, Product Design, Hires: Assistant Professor Elizabeth Esponnette, Assistant Professor Erdem Selek, Assistant Professor Hale Selek

2015 Search Committee member, Lundquist College of Business, Sports Product Institute Director, Hire: Ellen Schmidt-Devlin

2015 Chair, External Graduate Program Review, with Lorraine Justice, Barry Katz and Clark Lundell

2013 Chair, Faculty Search Committee, Product Design, Hire: Assistant Professor Wonhee Jeong Arndt

2010 Chair, Faculty Search Committee, Product Design, Hire: Assistant Professor Trygve Faste

2010 Chair, Faculty Search Committee, Product Design, Hire: Assistant Professor Jason Germany

Sponsored Studio Development

2015 Dune Sciences, PD486 studio (\$25k)

2015 Groovystuff, PD485 studio (\$10k goods in kind)

2014 OregonBEST + LED Trail, PD486 studio (\$25k)

2014 UofO Technology Lecture Hall Redesign, PD484 studio (\$20k)

2013 TrackTown USA, interdisciplinary PD483+ARCH4/584 studio (\$30k)

2012 Kingsford, PD483 studio (\$1k goods in kind)

2012 Wilsonart, PD410 studio (\$11k + \$14k goods in kind)

2011 Herman Miller, PD410 studio (\$25k)

2011 Arcimoto, PD484 studio (\$25k goods in kind)
2011 Green Lite Motors, PD484 studio (\$25k goods in kind)
2011 Blount, Inc., PD350 (\$1k goods in kind)
2010 Modo, Inc., PD484 studio (\$1k goods in kind)
2009 Columbia Sportswear, PD484 studio (\$1k goods in kind)

Juried Exhibition Development

2015 International Contemporary Furniture Fair, Sanctuary/Task Lamps, task-lamp design
2013 International Contemporary Furniture Fair (ICFF), Eugene Café Chairs for Wilsonart
2011 International Contemporary Furniture Fair, The Shape of Sustainability is...Flat?, flat-pack furniture design

Community Exhibitions Development

2015 Good Earth Home Show, Introduction to Product Design and 3D Printing
2013 Jacqua Center for Student Athletes, Adaptive Athletes: Wounded Warriors: products for adaptive veteran athletes
2012 LaVerne Krause Gallery, 4th Year (p)Review
2012 Jacqua Center for Student Athletes, Adaptive Athletics; products for professional adaptive athletes
2010 Eugene Airport, Sustainable Lamps and Furnishings
2010 White Box, MAKE: Product Design, Metalsmithing, Furniture and Ceramics at the University of Oregon
2010 Eugene Airport, What can you do in Product Design Studio? Example works
2009 LaVerne Krause Gallery, 4th Year (p)Review

Visiting Lecturer Development

2015 Chris Bruning
2013 Neri Oxman, Grace Jeffers, Nathan Blair
Koehn Colloquium: Richard Beckwith, William Deresiewicz, Carol Stabile and Yong Zhao
2012 Peter Woerner, Julie Schue, Mika Tolvanen
2011 Emily Pilloton, Stephen Burks, Philip White
2010 Jay Baldwin, Mike Simonian
2009 Paul Polak, Chris Rhoades

Industrial Design Society of America (IDSA) Student Chapter Advisor

2008-2011 Including organization of annual spring Student Merit Awards competition for UO

New Ventures Product Design Advisor

2009 Creating teams of product design students to work with New Ventures product-based groups of MBA students at the UO's Lundquist College of Business

Articles on Self and Students' Design Work by Others

Dietz, Diane (August 18, 2014) "UO seeks win-win" *The Register-Guard*;
<http://registerguard.com/rg/news/local/31953840-75/uo-seeks-to-bulk-up-its-sports-products-degree-offerings.html.csp>

Kubota, Taylor (July 17, 2014) "The 15 Best Condoms According to Science" *Men's Journal*;
<http://www.mensjournal.com/expert-advice/the-15-best-condoms-according-to-science-20140717>

DeClerico, Daniel (May 10, 2013) "Laminate takes a seat at the table of high design" *Consumer Reports*;
<http://www.consumerreports.org/cro/news/2013/05/laminate-takes-a-seat-at-the-table-of-high-design/index.htm>

Otto, Bridget A. (May 8, 2013) "University of Oregon Student Wins Wilsonart Competition" *The Oregonian*;
http://www.oregonlive.com/hg/index.ssf/2013/05/university_of_oregon_student_w.html

Shaggy (May 7, 2013) "Award Winning Chairs from Oregon head to NYC" *Core77*;
http://www.core77.com/blog/furniture_design/award_winning_chairs_from_oregon_head_to_nyc_24844.asp

Worthington, David (August 7, 2012) "Solar bag hauls, purifies water" *smartplanet*;
<http://www.smartplanet.com/blog/intelligent-energy/solar-bag-hauls-purifies-water/18331>

Hornyak, Tim (August 5, 2012) "Solar Bag concept purifies water as you walk" *cnet*; http://news.cnet.com/8301-17938_105-57486956-1/solar-bag-concept-purifies-water-as-you-walk/

Davies, Alex (July 24, 2012) "Solar Bag Purifies Water While You Walk" *Treehugger*; <http://www.treehugger.com/solar-technology/solar-bag-ryan-lynch.html>

Pinter, Dave (May 24, 2011) "ICFF 2011: Design School Highlights" *psfk*; <http://www.psfk.com/2011/05/icff-2011-design-school-highlights.html>

Shelly, Katie (May 24, 2011) "Hot Stuff from ICFF 2011" *Cooper Hewitt*; <http://www.cooperhewitt.org/2011/05/24/hot-stuff-from-icff-2011/>

Hall, Jamie (May 23, 2011) "NY Design Week 2011: University of Oregon's Flat [Im]Pact Chair" *Core77*; http://www.core77.com/blog/ny_design_week/ny_design_week_2011_university_of_oregons_flat_inpact_chair__19406.asp

Sheftell, Jason (May 20, 2011) "Furnish a future: Startups, young designers dominate this year's ICFF" *NY Daily News*; <http://www.nydailynews.com/life-style/real-estate/furnish-future-startups-young-designers-dominate-year-icff-article-1.1043811?pgno=2>

Krakoff, Reed (May 19, 2011) "Reed Krakoff: Best of ICFF" *Nowness*; <http://www.nowness.com/day/2011/5/19/1469/reed-krakoff-best-of-icff>

Casa Diseno (ed) (May 18, 2011) "A Day at ICFF" *Casa Diseno*; <http://casa-diseno-blog.com/2011/05/18/a-day-at-icff-2/>

Alter, Lloyd (May 16, 2011) "Flatpack Wonders From The University of Oregon" *Treehugger*; <http://www.treehugger.com/sustainable-product-design/flatpack-wonders-from-the-university-of-oregon.html>

School of Architecture and Allied Arts Service

2008-2015 Administrative Council (appointed); heads of all AAA departments

2008-2015 AAA-Portland Advisory Committee; heads of AAA departments with Portland presence

2014-2015 AAA Equity & Inclusion Committee (appointed)

2010-2014 AAA-Portland Curriculum Committee; development of collaborative course offerings

2012 AAA Space Allocation Committee; determining AAA procedures for office, studio and laboratory space

2008-2010 Academic Affairs Committee (appointed)

University of Oregon Service

2015 University Venture Development Fund (UVDF) Program Leadership team; at the request of VP of UO Innovation Partnership Services

2015 RAINmaker Seed Grant Review Committee; allocating \$25k in startup funding to UO student entrepreneurial ventures; at the request of VP of Research and Innovation

2014 Sports Product Initiative Cluster of Excellence Faculty Hiring; UO central fund award for 4 faculty members in Business and Product Design

2014 Sports Product Initiative Strategic Hire; UO central fund award for Associate-level PD faculty member

2013 Sports Product Initiative Curriculum Committee; development of interdisciplinary Sports Product Design and Sports Product Marketing curriculum and business plan; development of Cluster of Excellence proposal

2013 Big Ideas Review Committee; post-initiative assessment of University's Big Ideas process and outcomes; at the request of Provost

2011 Sustainability Council Steering Committee; development of University's Sustainability Council personnel and directives; at the request of Provost

2009 Big Ideas Council; representative of Green Product Design Network for Big Ideas initiatives

Professional Service

2014 Juror, Core77 Design Awards, Equipment Category, International professional and student design awards

2014 Associate Editor, International Journal of Design in Society (Common Ground, 2014), Volume 7, Issue 4

2014 Associate Editor, International Journal of Design Management and Professional Practice (Common Ground, 2014), Volume 7, Issue 2

2013 Associate Editor, International Journal of Designed Objects (Common Ground, 2013), Volume 6, Issue 3
2013 Breakout session chair, IDSA Education Symposium
2011 Associate Editor, Journal: Design Principles & Practices (Common Ground, 2011), Volume 5, Issue 6
2008-2010 Western District Education Representative, Industrial Designers' Society of America (IDSA) (elected)
2010 Student Merit Awards director at Western District Conference; Denver, CO, April 23-24
2009 Student Merit Awards director at Western District Conference; Santa Monica, CA, April 24-25
2009, 2010 Organization of National IDSA Education Conference
2009, 2010 Juror for academic papers delivered at National IDSA Education Conference
2009, 2010 Juror for student undergraduate and graduate scholarships, \$2500 each
2010 Juror, International Housewares Association (IHA) Student Design Competition \$12,000 in awards, Jan. 21
2009 Juror, International Housewares Association (IHA) Student Design Competition \$12,000 in awards; Jan. 29
2000-2008 LooseKnit, Founder/moderator of professional women designers network in San Francisco and New York City

Memberships

2005-present Industrial Design Society of America (IDSA)
2014-present European Kansei Group
2012-present Oregon BEST member faculty
2013-present Design Research Society
2013-present University of Oregon STEM CORE

JOHN ARNDT

Assistant Professor
Product Design Program
School of Architecture and Allied Arts
University of Oregon

EDUCATION

- 2004-2006 **Design Academy Eindhoven**, Eindhoven, the Netherlands
Masters of Design, Social and Environmental issues and practices in Design
Masters Thesis: integrating living systems into designed environments
- 2001-2004 **School of Fine Woodworking at the College of the Redwoods**, Fort Bragg, CA
- 2002-2004 **Center for Japanese Arts in Northern California**, Fort Bragg, CA
Study of traditional Japanese Arts, Tea Ceremony, Calligraphy and Brush Painting
- 1994-1997 **New York State College of Ceramics at Alfred University**, Alfred, NY
BFA, Ceramics and Sculpture
- 1994 **University of Wisconsin**, Milwaukee, WI

ACADEMIC POSITIONS

- 2008-present **University of Oregon, Product Design Program**, Eugene, OR
Assistant Professor, Product Design
- 1998-1999 **Hunter College, Department of Ceramics**, New York, NY
Ceramics Studio Technician
- 1997-1998 **Gould Academy**, Bethel, ME
Teacher/Artist in Residence

PROFESSIONAL

- 2007-present **Studio Gorm**, Rotterdam, NL –Eugene OR
Partner, Designed Objects and Interiors
- 2007 **Studio Bertjan Pot**, Rotterdam, NL
Product Development, Model Maker
- 2005 **CRC, Dastkat**, Gujarat, New Delhi India
Product Design and development in collaboration with traditional lacquer wood workers
- 2000 **Pregnant Moment Pictures**, Prague, Czech Rep
Head Model Maker, Animator *Okenka, The Night Fisherman*
- 2001 **Mendocino Art Center**, Mendocino, CA
Studio Assistant, Technician
- 1998-2000 **Izquierdo Stuidos**, New York, NY
Head Sculptor, Model Maker.

RESIDENCIES

- 2001 **Mendocino Art Center**, Mendocino, CA

AWARDS

- 2014 **UO Idea Award** for *Office Oasis* with Wonhee Arndt through UO Research Development Services
- 2014 **David Foster Class** Awarded Sponsored Class in Ceramics, Design and Manufacturing, will be co taught with Brian Gillis
- 2013 **Design Report Award**, Honorable Mention (2nd place) Salone Satellite at the Salone Mobile International, Jury of top international Designers. Younes Duret (MA), Benjamin Hubert (GB), Kuno Prey (I), Renny Ramakers (NL), Nicola Stattmann (D) and design report Editor-in-Chief Lars Quadejacob. Sponsored by Vitra, Mercedes Benz, Richard Lampert, Luminaire, Nils Holger Moorman and the German Design Council
- 2013 **New Guard**, nominated by Dwell Magazine as part of the new Guard 27 up and coming international designers

- 2012 **Red Dot Concept Award** (international award based in Germany/Singapore, Submission)
2010 **IDEA Award** International Design Excellence Award Silver medal (International Award based in US. Submission)
2010 **STARS Award** (Sustainability Tracking, Assessment and Rating System) earned 1 point towards UO's 56 total. For collaboration on UO's passive solar lumber kiln project to mill dry and utilize fallen tree's on campus
2007 Nominated for **Design Report Award**, Salon Satellite, Milan, IT

PUBLICATIONS

(all publications are reports written by other authors about and featuring images of my work)

Projects featured in Books

- 2014 Kitchen Kulture. Edited by Robert Klanten, Sven Ehmann, Michelle Galindo, Germany, US Release April 2015
2013 Sustainable Thinking, Ethical Approaches to design and design management, Aaris Sherin Bloomsbury, NY, p 70-71. Featuring Flow 2 Kitchen.
2012 Fabulous Furniture, Alice Chen, Art Power, China, p 254-257
Featuring: #3 bent chair, #3Fabric chair, Flow 2 Kitchen
2011 Jetzt.(Now.) Perceptions of Time and Contemporary Design, Exhibition Catalog, Edited by Friederike Fast, Jorg Hundertpfund, Michael Kroger, Kerber Art, Germany p 31, 72-75, 176-177
Featuring: Lighting Bug, Learning Tea, Tea Box, Wood Peg Furniture system, Flow 2 Kitchen
2011 My Green City, R. Klanten, Gestalten Press, Germany p 83
Featuring: Flow 2 kitchen
2011 Inside Prefab: The Ready-Made Interior Princeton Press, by Deborah Schneiderman, p 54-57
Featuring: Flow 2 Kitchen
2011 Jardin & Design, Cite du Design, Marie-Haude Caraes et Chloe Heyraud, p 94
Featuring: Flow 2 kitchen
2010 Unexpected Guests, Yesterday's Houses Today's Design, exhibition Catalog, Coraini Edizioni, index
Featuring: Camp bench
2010 The Heimtextil Trend Book, Here Design and the Future Laboratory, p 54-55,64-65
Design Direction: Utility, Color Trend Forecasting Featuring: Camp Furniture with a detailed analysis of our color pallets used. color swatch samples developed based on our Camp furniture installation for color forecasting for 2012 product lines.
2010 Trend Forecasters Handbook, London, Laurence King books, by Martin Raymond, p 69
Flow 2 Kitchen
2010 Product Design in the Sustainable Era, Taschen press, by Delcacio Reis, p 216-217
Featuring Flow 2 Kitchen
2010 Hot Trend 2010, Korean Trend Forecasting institute, Leaders Book Publisher, p 329-330
Featuring: Flow 2 kitchen,
2009 Once Upon A Chair, Design Beyond the Icon R. Klanten Gestalten Press, p 42-43
Featuring: Cloud Lamp, #3 chair
2008 Desire, the shape of things to come, R. Klanten, Gestalten Press, p 52-53,161,209
Featuring: Camp furniture, Flow kitchen, Shed Shelf, Plug Lamp, Pole Lamp, Paper Spot, Lighting Bug, Platform Bed, Shed Shelf
2007 Designers Light, Ingo Maurer "Poet of Light" Gwangju Design Biennial catalog p 52
Featuring: Plug Lamp

Projects featured in design periodicals

Professional Journals

- 2013 Design Report, Germany, June, profile of the winners of the Design Report Award, German, English
2010 Innovation, Quarterly of Industrial Designers Society of America, *Yearbook of Design Excellence IDEA awards*, USA September, English, p 106, Flow 2 kitchen
2009 Object, the journal for applied arts, *Panorama, everything flows, the boundaries between avant-garde*

2009 *furniture design and art blur*, Germany, June, German, English, Pascal Johanssen, p 18-19
Textile View, Netherlands, Summer, English

PUBLICATIONS

(all publications are reports written by other authors about and featuring images of my work)

Professional and Public audiences

2014 Gray Magazine, studio visit with Studio Gorm December 2014
2014 Dwell Magazine, new products from Milan, June 2014
2013 MD International, *printerview* Studio Gorm 3 page profile, Bulgaria, September, July, p 94-97, Russian, English
2013 Dwell Magazine, *Satellite Broadcast*, US designers in Milan, July/August, p 60, exhibition view of our booth in the Salone Satellite Milan, English
2013 Financial Times, London, House and Home Interiors, April 6/7, a two page article about sustainable design in Seattle, Studio Gorm featured on both pages, Milk Bottle lamp, #3 Fabric Chair Flow 2 kitchen
2013 *Arquitectura y Diseno* magazine, *Energy and Sustainability*, Spain, Portugal, South America, July, p153, Flow Kitchen Spanish
2012 ViewPoint Magazine, Exploring the Way we Live, *The Information: The newest and best in technology, design, art and architecture*, London, Autumn Winter, p12 Wood Peg furniture
2012 Wallpaper Magazine, *To DIY for, the new generation of Flatpacks*, Henrietta Thompson, UK, October, p 80-81, #3 Fabric Chair, circulation105,328
2012 Dwell Asia, In the Modern World, Design Intelligence from Around the Globe, Front Piece, September October, English p11
2012 Dwell, US, May, (the now 99, Studio Gorm recognized as one of the New Guard, top 27 up-and-coming international designers) p 80-88, circulation 325,000
2012 Cubes Magazine, Design, Space, Life, *Kids Room*, Singapore, February, p 57, Cloud Lamp, English
2011 Walpaper Magzine, UK September, p 225 Peg Frame furniture System
2011 *Arquitectura y Diseno*, *The New Ecological Kitchen*, Barcelona, April, Flow2, Spanish, Portuguese
2011 A Vivre, *Histories of Tables*, France, February,p46, Wood Peg, French
2011 Ktirio, Architecture and Design, *Green Kitchen Design*, Greece March, Flow 2, Greek,
2011 Sanctuary: Modern Green Homes, Australia, March, English
2011 Wohnrevue, Interior and Design, *Talent Studio Profile*, #3 chairs, construction quilt, shed shelf, peg furniture, Switzerland, March, p24, German
2011 Dolce Vita, *First Class, The best in International Design*, Czech Republic, February, Flow 2 Kitchen, Czech
2011 A Vivre, France, March/April, French, p37 cap lamp
2011 Hiše Magazin, Israel, February, p 36, Flow Kitchen Hebrew
2010 Pasajes Diseno, *Pragmatismo Temporal*, Javier Pena, Spain October, p 6, Peg furniture system, Spanish,
2010 Dwell Magazine, US, March, Peg Furniture, English
2010 Cubes Magazine, Singapore, February, p 22, Peg Furniture, English
2009 Victoire Belgium, December, French,
2009 Nisha Magazine, Israel, November, p 24, Flow 2, Hebrew
2009 Story Magazine, Moscow November, Flow Kitchen, Russian
2009 Deco Journal, *Design Story*, Studio Gorm Profile, Korea, September, #3 Chair, Peg Furniture System, Flow 2 Kitchen, Korean
2009 LA Times Brand X, *Kitchen Unplugged*, LA, September, Back Cover image, Flow 2
2009 La Republica, D Casa, Italy, February, Italian
2009 Lapid, Spain, February, Spanish
2008 Kitchen and Bath, New Zealand, April, English
2008 KBB, *Extra Terrestrial, A modular, interactive and integrated kitchen system that's alive*, Sallie Moffat, New York, January, p 52, Interview about Flow Kitchen
2008 Actief Wonen, Belgium, February, Dutch
2007 La Vie, Taiwan, January, Mandarin
2007 Readymade, Flow Kitchen article, with plans on how to build a DIY version, USA, October, November
2007 101 Wonen Design, NL, September, Dutch

- 2007 Icon, Design, UK, July, English
2007 Metropolis, Architecture and Design, *Product Design Trends, Garden Laboratory*, Flow Kitchen, USA April, p170, English
2007 El Wonen, Tuinen, Natuurmonumenten, Netherlands March, p51, Flow Kitchen Dutch
2007 Damn, Design, Belgium. February, Plug Lamp, English
2006 Frame, Architecture and Design, Biotic Kitchen, Netherlands. January February, p 152, Flow Kitchen, English

EXHIBITIONS (selected)

- 2015 "The New Frontier, Young Designer-Makers in the Pacific Northwest, Bellevue Art Museum, Bellevue WA, group exhibition featuring Sprung Lounge Chair, side chair, Shell Desk, Bracket Table, bench and stool, Peg Furniture and various prototypes and models
2014 "Salone Satellite", "New work by Studio Gorm", Juried Exhibition, Salone Mobile International, Milan IT
2013 *The Future of Home Living*, invitational, Curated by NY based think tank PSFK, The 101, New York, NY. An interactive space showcasing tomorrow's ideas and innovations in modern urban living.
Featuring: Peg Frame Furniture system
2013 "Salone Satellite", "New work by Studio Gorm", Juried Exhibition, Salone Mobile International, Milan IT
Featuring: Sprung Chair, Scene Carpets, Judd Coffee Table, Spade Coat Hooks, Basket Tray, Sand bag Table, Block Lamp
2013 "Here and There" Invitational, Curated by Jonah Takagi of Field, exhibition during NY Design Week, Various Projects, New York, NY
Featuring: Camp Furniture, Plug Lamp, Tea Box
2012 *Excellent Craft at the Court at the House van Orange* International Invitational, curated by Nicole Uniquole, Oranienbaum Palace, Dessau-Worlitz Germany
Featuring: Tea Box, Learning Tea
2011 *Now! Perceptions of time and contemporary design*, International Invitational, curated by Friederike Fast, MARTa Herford Museum Herford Germany
Featuring: Wood Peg furniture system, Flow 2 Kitchen, Tea Box, and Learning Tea
2011 *Timeline*, a permanent installation representing a selection of the entire collection and exhibition material from the museum's history Curator and Designer with Wonhee Jeong Arndt, Museum of Contemporary Craft, Portland Oregon
2010 *Studio Gorm, a collection of work*, the Directorenhaus gallery, curated by Pascal Johanssen, Berlin Germany
Featuring: Wood Peg system, Flow 2 kitchen, Camp Furniture series, Plug Lamp, Learning Tea, Cap Lamp and Hat Lamp
2010 *Unexpected Guests, Homes of Yesterday, Designs of Today*, over two hundred objects designed between 2000 and today by the most ground-breaking international designers and produced by the top industrial companies, International Invitational, Curated by Beppe Finessi, Italo Lupi, Annalisa Zanni, Bagetti Valsecchi Museum, Milan Italy
Featuring: Camp Bench
2009 *The Academy is Full of Craft*, Exhibition design with Wonhee Jeong Arndt, Curated by Namita Wiggers, the Museum of Contemporary Craft Portland Or
2009 *Call and Response*, National Invitational, Curated by Namita Wiggers, Museum of Contemporary Craft, Portland Oregon
Featuring: Flow 2 Kitchen, Shed Shelf
2008 *ADX Furniture Dig*, National Invitational, curated by Eric Black, ADX, Portland Oregon
Featuring: Camp furniture, Plug Lamp, #3 chair and bench
2008 *Product Design Faculty Exhibition*, Curator and Exhibition Design with Wonhee Jeong Arndt, White Stag Building, Portland Oregon
Featuring: Flow 2 Kitchen, Peg Furniture, Paper Spot lamp, Shed Shelf, Plug Lamp, Pole Lamp, Cloud Lamp
2008 *Studio Gorm, Products and Prototypes*, curator with Wonhee Jeong Arndt, Design within Reach, Milwaukee Studio, Milwaukee WI
Featuring: Flow 2 Kitchen, Shed Shelf, Construction Quilt, Platform Bed, Hedra Lamp, Plug Lamp Bast Chair, Paper Spot Lamp

- 2007 *100 designer lights*, International Invitational, Gwangju Design Biennale, Seoul, Korea
Featuring: Plug Lamp
- 2007 *Elle Wonen, Inside Design*, International Invitational, curated by Mirella Sahetapy Amsterdam
Featuring: Plug Lamp, Flying Light, Left handed tea set
- 2007 *Talents*, Tendence Lifestyle Faire, Ambiente, International Invitational, Curator, Messe Frankfurt, Germany
Featuring: Camp furniture, Plug Lamp, Flying Light, Laptop bag,
- 2007 *Salone Satellite*, Juried Submission, Salone de Mobile, Milan, IT
Shed Shelf, Camp Furniture, Lighting bug, Plug Lamp, Laptop Bag
- 2007 *The Edible City*, Curated by Deborah Salomon and Guus Beumer, NAI Netherlands Architecture Institute, Maastricht, NL
Featuring: Flow Kitchen
- 2006 *Masters Graduation Show*, Design Academy Eindhoven, NL
Featuring: Flow Kitchen

INVITED LECTURES AND WORKSHOPS

- 2013 **Cranbrook Academy of Art**, Bloomfield Hills MI
Studio Gorm has been invited to run the inaugural Annual Knoll Workshop, sponsored by Knoll International. "Rituals of Use" A five-day workshop with the 3D Design Graduate Program
- 2013 **Rhode Island School of Design**, Providence RI
Lecture: *Domestic Objects, the work of Studio Gorm*
- 2011 **Young Designers Workshop Taiwan Design Organization**, Taipei Taiwan
Workshop: *New Crafts, Ceramic Objects*
- 2011 **California College of Art**, San Francisco CA
Lecture: *Ordinary Influences, design of Studio Gorm*, with Wonhee Arndt
- 2010 **Tatung University**, Taipei Taiwan
Workshop: *Taiwan Ergonomic Society Conference*, with Wonhee Arndt and Nancy Cheng
- 2009 **University of Wisconsin Madison**, Madison WI
Lecture: *The work of Studio Gorm*
- 2009 **Art Institute of Chicago**, Chicago IL
Lecture: *The Japanese Tea Ceremony and its influence on Contemporary Design*
part of Chado-Ga-Kai, Taking Tea April 25, 2009

COMMISSIONS

- 2012 Tea Cart, JTea International, Eugene OR, a lightweight mobile bike teacart for preparing and serving Taiwanese teas
- 2012 Peg Daycare, Chambers, London, UK, (design a modular furniture system for a Montessori based daycare focusing on Manual Learning skills, students assemble and disassemble the furniture at the beginning and end of each day)

LINKS

- <http://www.dwell.com/collection/new-guard>
- <http://www.dwell.com/profiles/article/studio-gorm>
- <http://www.design-report.de/Fachartikelarchiv/33388062/Studio-Gorm.html>
- http://www.design-report.de/pdfaward/DRAward2013_ergebnisse_e.pdf
- <http://www.red-dot.sg/en/online-exhibition/concept/?code=763&y=2012&c=21&a=0>
- http://www.core77.com/blog/object_culture/studio_gorms_flow_kitchen_17335.asp
- <http://www.hermanmiller.com/lifework/playlist-designers-john-arndt-wonhee-jeong-arndt-of-studio-gorm/>
- <http://design-milk.com/friday-five-with-studio-gorm/>
- <http://www.fastcompany.com/1330953/table-turns-your-kitchen-mini-ecosystem-updated>
- http://luminaire.com/slideshow/166_7/
- <http://www.dezeen.com/2010/06/28/peg-by-studio-gorm/>
- <http://www.dezeen.com/2009/08/11/flow2-kitchen-by-studio-gorm/>
- <https://stars.aashe.org/institutions/university-of-oregon-or/report/2011-02-25/IN/innovation/IN-4/>

TEACHING

Date	Course No.	Title	Units	Enrollment
S2014	PD485	Studio: Lean Tech	4	11
W2014	PD440	Advanced Designers Tools	4	20
W2014	ARTC	Prototypes and Manufacturing	4	18
F2013	PD101	Intro to Product Design	4	97
F2013	PD240	Designers Tools	4	20
Sm2013	PD410	POP UP Led Lighting	4	21
S2013	PD 440	Advanced Tools (sponsored by Bamboo Revolution in Portland, OR and Eugene Pattern and Foundry)	4	15
W2013	PD 240/440	Required course: Design Tools/Advanced Tools	4	16
W2013	ARTC 255/355	Studio: Ceramic Manufacturing, co taught B Gillis (work with local restaurant Falling Sky)	4	11
F2012	PD 410	Studio: Skin and Bones, Experimental Chairs (Sponsored studio Wilsonart Laminates, collaboration with OSU Wood Science department)	4	14
S2012	PD 484	Studio: UO Airstream Project Sponsored by Alumni Donor, collaboration with UO sustainability center	4	14
W2012	ARTC	Studio: Tea Equipment	4	15
W2012	PD 240/440	Required course: Design Tools/Advanced Tools	4	12
F2011	PD 484	Studio: Human Powered Home	4	15
F2011	PD 240/440	Required course: Design Tools/Advanced Tools	4	14
Sm2011	PD 410	Prototyping for Production (in conjunction with Manufacturing, taught B Gillis)	4	16
S2011	PD 410	Advanced Tools (Sponsored by Light Beam Industries)	4	14
W2010	PD 484	Studio: Green Powered Street Lights (Sponsored by EWEB grant, collaboration with Light Beam Industries)	4	18
W2010	ARTC 355	Studio: Tea Equipment	4	9
F2010	PD 484	Studio: Simple Machines	4	20
F2010	PD 410	Required course: Design Tools/Advanced Tools	4	16
Sm2010	PD 410	A Tree Falls, Furniture project (collaboration with Facilities service grounds keepers and the UO Office of sustainability, final project built for the office of the provost and Johnson Hall)	4	14
S2010	PD 370	Lecture: Design Process	4	41
S2010	PD 484	Studio: Rolling, medical carts (Sponsored by Modo Design)	4	22
W2010	ARTC 255	Studio: Families of Objects	4	9
W2010	PD 410	Studio: Rhino Modeling/CNC Router Flatpack	4	35
F2009	PD 486	Studio: Grow (Portland)	6	7
Sm2009	AAA 408/508	Food as a Cultural Offering	2	10
Sm2009	PD 408	Urban Survival Project (Portland)	4	11
S2009	ART 199	Design Tools	4	11
W2009	PD 370	Lecture: Design Process	4	41
W2009	PD 484	Studio: Disaster	4	5
W2009	ART 199	Design Tools	4	15
W2009		Independent Study Stacy Jo Scott, Ceramics	1	1

F2009	PD 484	Studio: InHabit Housewares	4	6
F2008	PD 340	Design for Use co taught with Kiersten Muenchinger	4	57
F2009		Independent Study Ben Ulish, Jewelry	1	1
F2009		Independent Study Tyra Besset, Jewelry	1	1

CLARK Honors College Thesis Advisor

2013	Katie Lee, Prenatal Kit, Secondary Advisor
2011-2012	Richard Koehler Design as a tool in Alleviating Poverty, Primary Advisor
2010	Jana Rogers Redefining the experience of chemotherapy through design, Secondary Advisor

STUDENT AWARDS

2013	Student Exhibition at the International Contemporary Furniture Fair (ICFF) Sponsored by Wilsonart Laminates 7 students selected to exhibit chair designs from Fall course "Skin and Bones"
2013	"Metropolis Likes" Awarded by Metropolis Magazine at ICFF

STUDENT PUBLICATIONS

2013	Atomic Ranch, Fall, Wilsonart Chair Project
2012	Ply Design, Philip Schmidt, Storey, 2012 Sean Kelly, Patrick McAffery, Matt Kennedy

LINKS

http://www.core77.com/blog/furniture_design/award_winning_chairs_from_oregon_head_to_nyc_24844.asp

SERVICE

PRODUCT DESIGN PROGRAM

2014	3 rd Year Department Head Evaluation Committee Chair. coordinate collection of materials from faculty and staff, and the department head. Submit recommendation to the Dean
2013-present	Curriculum Committee chair, development of new Master program for Product design program
2013	Lead, and supervised 7 students on a trip to New York City for International Furniture Fair
2010	Faculty Search Committee, (2 new faculty hired)
2008-2013	Curriculum Committee, (Development of all of the curriculum of the Product Design Program)
2008-2013	Visiting Lecture Committee
2010	ICFF Flat Impact, several students from my courses participated in the UO PD student exhibition New York NY traveled with students to New York.
20010	ICFF Preview Show, selected work and designed exhibition, Laverne Krause Gallery UO
2009-2013	Coordinated three Student Exhibitions at Modern design store, Eugene OR

DEPARTMENT OF ART

2010-11	MFA Thesis Advisory Committee, Lindsay Jones, Department of Art
2008-12	MFA Grad Review Critic, Biannually invited to review the work of the Department of Art Graduate students
2010	Curriculum Committee, Department of Art
2009	Gallery Committee for the Laverne Krause Gallery

DEPARTMENT OF INTERIOR ARCHITECTURE

2008-2013	Project reviewer Midterm and Final Presentations, Furniture classes and Electric Lighting
2009-2012	Annual Guest Lecture, Electric Lighting taught by Virginia Cartwright

A&AA

2013	Deans Award review Committee (reviewed and nominated faculty applicants for summer research award)
2013	AAA Gen Ed workshop (Developed new course proposal for A&AA Gen Ed course and reviewed and workshopped other A&AA faculty proposals)

2011-2012

House Committee

UNIVERSITY

2011

Green Product Design Network, Board of Directors

2010

Solar Lumber Kiln Project, (worked with Facilities services, and the Office of sustainability at UO

Trygve Faste

Assistant Professor
Product Design Program
5282 University of Oregon
Eugene, OR 97403
trygve@uoregon.edu
541.346.4377

www.trygvefaste.com
www.somethinglikethisdesign.com

EDUCATION

- 2004 MFA in Painting, Cranbrook Academy of Art, Bloomfield Hills, MI
- 1997 BA in Studio Art and Mathematics/Computer Science, Whitman College, Walla Walla, WA

ACADEMIC POSITIONS

- 2010 – present Assistant Professor, Product Design Program
School of Architecture and Allied Arts, University of Oregon, Eugene, OR
- 2008 – 2010 Adjunct Faculty, California State University, Long Beach, CA
Adjunct Faculty, Rio Hondo College, Los Angeles, CA
Adjunct Faculty, Otis College of Art and Design, Los Angeles, CA
Adjunct Faculty, Art Department, Pierce College, Woodland Hills, CA
- Fall 2005 Artist In Residence/Interim Head of the Graduate Painting Department
Cranbrook Academy of Art, Bloomfield Hills, MI
- 2004 – 2005 Assistant Professor of Art, Johnston Visiting Scholar, Art Department, Whitman College, Walla Walla, WA
- 2000 Lecturer, Design Division, Stanford University, Stanford, CA

PROFESSIONAL DESIGN POSITIONS

- 2010 – present Secretary/Creative Director, Rolf A. Faste Foundation for Design Creativity, Nonprofit, Palo Alto, CA
- 2006 – 2008 Senior Product Designer/Project Designer, WET Design, Sunvalley, CA
Designed and invented water based public art installations, fountains, and products
- 2002 – 2004 Teaching Assistant, Painting Department, Cranbrook Academy of Art, Bloomfield Hills, MI
Artist Assistant, Beverly Fishman, Cranbrook Academy of Art, Bloomfield Hills, MI
- 1997 – 2002 Industrial Designer, IDEO Product Development, Palo Alto, CA & Chicago, IL
Designed toys, consumer products, environments and experiences involving concept and interaction development
- 1996 Virtual Interface Designer, Fakespace Inc., Mountain View, CA
Developed and invented computer hardware for intuitive human interaction with virtual environments in multi-disciplinary research and development department
- 1995 – 1996 Summer Intern, Fakespace Inc., Mountain View, CA
- 1993 – 1994 Summer Intern, IDEO Product Development, Palo Alto, CA

SOLO EXHIBITIONS

- 2015 *Multidimensional Flatspace*, Ruth Bachofner Gallery, Santa Monica, CA
- 2014 *Illusive Structures*, One Grand Gallery, Portland, OR
- 2013 *Lightspeed*, Ruth Bachofner Gallery, Santa Monica, CA
Dimensional Shift, Cheymore Gallery, Tuxedo Park, NY
Technoforms, David Richard Gallery, Santa Fe, NM
- 2009 *Technovista*, Spacecraft Gallery, San Diego, CA
- 2006 *The Cranbrook Paintings*, Lemberg Gallery, Ferndale, MI
- 2000 *Bay Area Images*, D2M Gallery Space, Mountain View, CA

GROUP EXHIBITIONS

- 2015 *Plus One*, The Center for Contemporary Art, Bedminster, NJ
The New Frontier: Young Designer-Makers in the Pacific Northwest, Bellevue Arts Museum, Bellevue, WA
- 2014 *Trunk Show*, Stephanie Breitbard Fine Art, San Francisco Bay Area, CA
Art Silicon Valley, David Richard Gallery, San Francisco, CA
Nike Innovation Pop Up Show, The Engine Room Innovation Community, Portland, OR
Process of Design, UO Product Design, White Box Gallery, Portland, OR
ShowPDX, Fix Studio, Portland, OR (Juried)
Love It or Leave It, One Grand Gallery, Portland OR & One Grand Gallery at Gallery 321, Seattle WA
Revolution Design House, Centrum Gallery, Oregon College of Art and Craft, Portland, OR
Perfect, TEDx Exhibition, One Grand Gallery, Portland, OR
Robinsons's Furniture Exhibit, Robinsons, Singapore
Furniture Design Awards Finalist Exhibit, SingaPlural, National Design Center, Singapore (Juried)
LA Art Show 2014, Art All Ways booth curated by Hoojung Lee, Los Angeles Convention Center, Los Angeles, CA
International Exchange Exhibition, Daegu Gyeongbuk Design Center, Daegu University, Gyeongbuk, South Korea
- 2013 *Small Works*, Ruth Bachofner Gallery, Santa Monica, CA
Home as Art, Good Eye Gallery, Pasadena, CA
Korean International Art Fair, Nine Gallery, Seoul, South Korea
Salão Design: Casa Brasil, Bento Gonçalves, Brazil (Juried)
The Process Of Design, University of Oregon, Portland, OR
Good Eye Open, Curve Line Space, Los Angeles, CA
What If? Art and Design Exhibition, TEDx & University of Oregon, White Box Gallery & Portland Art Museum, Portland, OR
- 2012 *Gallery Artists*, Ruth Bachofner Gallery, Santa Monica, CA
Tomorrowland, California State University Northridge, Northridge, CA
ShowPDX, Fix Studio, Portland, OR (Juried)

- Chronicle on Design*, Lakewood Center For the Arts, Lake Oswego, OR (Juried)
- KOKESHI: From Tradition to Today*, Oregon Nikkei Endowment, Portland, OR
- 2011 *Art Basel*, Miami Art Fair, David Richard Contemporary, Miami, FL
- Recent Work*, General group exhibition space, David Richard Contemporary, Santa Fe, NM
- 2010 *Framework*, David Richard Contemporary, Santa Fe, NM
- Art Santa Fe*, Santa Fe Art Fair, David Richard Contemporary, Santa Fe, NM
- 2009 *Faculty Exhibition*, Design Department Gallery, California State University, Long Beach, CA
- LA Exhibition*, CAA Cranbrook Alumni Event, Los Angeles, CA
- NEXT Chicago Art Fair*, Imperfect Articles Booth, Chicago, IL
- 2008 *Winter Group Show*, Gallery 643, Ventura, CA
- Bailout Package*, Spacecraft Gallery, San Diego, CA
- Summer Mix*, Lemberg Gallery, Ferndale, MI
- Alma Mater*, Kinkead Contemporary, Culver City, Los Angeles, CA
- Featured Drawing Files Artist*, Fringe Exhibitions, China Town, Los Angeles, CA
- 2007 *Contemporary Urban Landscape*, Lemberg Gallery, Ferndale, MI
- WOP*, Works On Paper, The Brewery Project, Los Angeles, CA
- 2006 *Anniversary Exhibition*, DaimlerChrysler, Farmington Hills, MI
- 2005 *Building Connections: Architectural Dialogues*, Cranbrook Museum, Bloomfield Hills, MI
- Winter Group Exhibition*, Lemberg Gallery, Ferndale, MI
- 2004 *Faculty Exhibition*, Sheehan Gallery, Whitman College, Walla Walla, WA
- Summer Group Show*, Lemberg Gallery, Ferndale, MI
- Thesis Exhibition*, Cranbrook Museum, Bloomfield Hills, MI
- 2003 *Fan Fair*, Forum Gallery, Cranbrook Museum, Bloomfield Hills, MI
- Feelings*, Forum Gallery, Cranbrook Museum, Bloomfield Hills, MI
- 2001 *California Grown*, The Base Space, School of the Art Institute of Chicago, Chicago, IL
- 1999 *Zines and Comics Exhibition*, Yerba Buena Center for the Arts, San Francisco, CA

PUBLIC ART/DESIGN PROJECTS

- 2012 *Water Garden*, public fountain, Senior Project Designer at WET Design
City Creek Center, Salt Lake City, UT
- 2010 *Glacia*, kinetic ice sculpture, Lead Project Designer at WET Design, MGM, Daniel Libeskind Architecture
City Center, Las Vegas, NV
- Lumia*, multiple water features, Lead Project Designer at WET Design, MGM, Pelli Clarke Pelli Architecture
City Center, Las Vegas, NV
- Halo*, water sculpture, Lead Project Designer at WET Design, MGM, Daniel Libeskind Architecture
City Center, Las Vegas, NV

JURIED PRESENTATIONS & PAPERS

- 2014 IDSA National Conference in Austin, TX
Faste, Trygve (2014) The Art/Design Exchange Revitalized, IDSA Education Symposium Publication
- 2012 IDSA National Conference in Boston, MA
Faste, Trygve and Faste, Haakon (2012) Demystifying “Design Research”: Design is Not Research, Research is Design, IDSA Education Symposium Publication

JURIED EXHIBITIONS IN PRINT

- 2011 Studio Visit Magazine. Issue #16, Juror Ian Berry, Associate Director and Curator at The Tang Teaching Museum and Art Gallery at Skidmore College, Saratoga Springs, NY

JURIED DESIGN COMPETITIONS

- 2014 Herman Miller Office Nomads, Finalist (One of the top 15 of 100+ concepts)
Download Chair, with co-designer Kiersten Muenchinger, Lexus Design Award, Short List (top 10% of 2613 entries)
- 2013 The Link Shelf, Furniture Design Awards, Singapore, Merit Award (top 4 of 200 international submissions in group)
The Link Shelf, Salão Brazil Furniture Design Competition, Finalist
Sticker Chair, with co-designer Kiersten Muenchinger, Salao Brazil Furniture Design Competition, Finalist
Bryophyte Edition 1: Moss Jars, IDSA IDEA Awards, Finalist
The Link Shelf, Red Dot, Finalist
Sticker Chair, with co-designer Kiersten Muenchinger, Red Dot, Finalist
UP*Down Chair, with co-designer Kiersten Muenchinger, Red Dot, Finalist
Bryophyte Edition 1: Moss Jars, Red Dot, Finalist
- 2012 Light Spot Concept, Red Dot, Finalist

COLLECTIONS

- Cranbrook Art Museum, Bloomfield Hills, MI
Compuware, Detroit, MI
Chrysler, Detroit, MI
Feldman Collection, Bloomfield Hills, MI

FUNDED PROJECTS AND GRANTS

- 2015 NITC Grant, Designing for an Aging Population, National Institute for Transportation and Communities, \$80,544
- 2014 IDEA Grant, Ceramic Design with Barnacles, University of Oregon, \$10,000 (\$5,000 + \$5,000 PD matching funds)
- 2013 Oregon Arts Commission, Individual Artist Opportunity Grant, \$1,500
- 2011 Board of Visitors Faculty Fellowship and Student Assistantship Award, Functional Moss Surfaces, UO AAA, \$4,500
Creative Activity Award, UO AAA Dean's Office Research Grant \$4,000

INVITED LECTURES AND INTERVIEWS

- 2014 The Art/Design Exchange Revitalized, State of Wonder, Oregon Public Broadcasting, (Aug 9, 2014, time code 9:40)
- 2013 Art/Design Nexus: Embracing the Merger of Art & Industrial Design Practice
National Taiwan Normal University, Taipei, Taiwan
- 2012 Hans Burkhardt Honorary Speaker, Art and Design Center, California State University, Northridge CA
- 2011 International Design Alliance Congress, Technology Toys Workshop Results, Taipei City, Taiwan
- 2010 Guest Lecturer, First Year Design Foundations Class, Otis College of Art and Design, Los Angeles, CA
- 2009 Design Department, California State University, Long Beach, CA
Guest Lecturer, First Year Design Foundations Class, Otis College of Art and Design, Los Angeles, CA
- 2008 Painting Program, Art and Design Center, California State University, Northridge CA
Guest Lecturer, First Year Design Foundations Class, Otis College of Art and Design, Los Angeles, CA
- 2002 Guest Lecturer, Engineering for Design Class, Design and Engineering Department
North Western University, Evanston, IL
- 2000 D2M Product Design, Mountain View, CA
Guest Lecturer, Mechanical Engineering 101, Design Division of Mechanical Engineering, Stanford, CA
- 1999 Guest Lecturer, Ambidextrous Thinking Class, Design Division of Mechanical Engineering, Stanford, CA

PUBLICATION

Stadtzauber Kulturmagazin, "Intertidal deployment object"
September / October, p. 67, 2015

"The New Frontier, Young Designer-Makers in the Pacific Northwest"
Jennifer Naava Milliken, Bellevue Arts Museum, pp.16, 18, 76 – 77, 2015

Fahrenheit Magazine, "Trygyve Faste Observación de la realidad"
Coral Flores, Issue 81, p.4, June 2015

Experimenta Design Magazine, "Intertidal Deployment Objects 2, una colección de Something Like This Design", June 2015
<http://www.experimenta.es/noticias/breves/coleccion-intertidal-deployment-objects-2-de-something-design>

Designlines, "Aus dem Meer auf den Tisch" (From the Sea to the Table), June 2015
http://www.designlines.de/newcomer/Intertidal-Deployment-Objects_15605843.html

Catálogo de diseño, "Something Like This Design explora el uso de crustáceos en objetos de ceramic", May 2015
<http://www.catalogodiseno.com/2015/05/24/something-like-this-design/>

The Seattle Times, "Meet the New Wave of Designer-Makers at BAM"
Gayle Clemans, May 8, 2015
<http://www.seattletimes.com/entertainment/visual-arts/meet-the-new-wave-of-designer-makers-at-bam/>

designboom, "Barnacle-clad Intertidal Objects by Something Like This Design", May 2015
www.designboom.com/design/something-like-this-design-intertidal-deployment-objects-series-2-05-11-2015/

Gray, "Scene: News", Image: Bryophyte Edition One
Issue 21, p. 23, 2015

Sight Unseen, "The New Frontier At Bellevue Arts Museum"
Monica Khemsurov, Photography by Charlie Schuck, April 2015
<http://www.sightunseen.com/2015/04/the-new-frontier-at-bellevue-arts-museum>

ARCADE, "The New Frontier: Young Designer-Makers in the Pacific Northwest"
Jennifer Naava Milliken, Issue 33.1, p.18, 2015
<http://arcadenw.org/>

Artsy, "Artist Constructs Whimsical Canvases That Defy This Dimension"
Emily Nathan, December 2014
<https://www.artsy.net/post/editorial-drawing-upon-his-past-in-math-and-comp>

Sight Unseen, "Intertidal Deployment Objects"
Rita Clare, November 13, 2014
<http://www.sightunseen.com/2014/11/intertidal-deployment-objects/>

Dwell, "Emerging Designers Dream Up Solutions for the 21st-Century Office"
Patrick Sisson, November 1, 2014
<http://www.dwell.com/product/article/emerging-designers-dream-solutions-21st-century-office>

Core 77, "Design Week Portland: Sweet Student Work at UO"
Kat Bauman, October 2014
http://www.core77.com/blog/events/design_week_portland_sweet_student_work_at_u_of_o_27766.asp#more

Visual Art Source, "Trygve Faste at Bachofner Gallery"
Jody Zellen, October 2013

NY Arts Magazine, "Lightspeed: Trygve Faste at Ruth Bachofner Gallery"
Beth Russell, September 2013
<http://www.nyartsmagazine.com/?p=12625>

"Regenerative Infrastructures, Land Art Generator Initiative"
Caroline Klein and LAGI, May 2013

Ceramic Review, "Bryophyte Edition 1: Moss Jars"
Trygve Faste & Jessica Swanson, March/April 2013

LA Weekly, "Disney's Tomorrowland Inspires an Art Show"
Annie Tucker, Nov 19, 2012

"Sketching With Copic"
Kenneth O'Connell, 2010

The Metro Times, "City Lights: Lemberg Gallery Joins the Metropolitan Conversation"
George Tysh, February 28, 2007

The Detroit, "Two-in-One: Gallery Project/Lemberg Gallery"
Nick Sousanis, February 28, 2007

"The Metal Sunset of Tomorrows Ascending Decent"
Jules Boykoff, May 2006

Royal Oak Mirror, "Lemberg Gallery Shows Cranbrook Work"
J.L. Bardelline, April 13, 2006

Contemporary, "Clara Park, Positions of Contemporary Painting from Leipzig."
Matthew Biro, issue no 69, 2004

AWARDS

- 2015 Young Educator of the Year Award, Industrial Design Society of America (IDSA)
- 2013 Sony Scholar Award, University of Oregon, Eugene, OR
- 2004 Merit Scholarship, Cranbrook Academy of Art, Bloomfield Hills, MI
- 2003 Merit Scholarship, Cranbrook Academy of Art, Bloomfield Hills, MI
- 1997 Perry Award, Senior Thesis Exhibition, Whitman College, Walla Walla, WA

PATENTS

WO/2014/130818 – Interlocking Extensible Shelving System, Faste, Trygve, State of Oregon Acting by and through the State Board of Higher Education on Behalf of the University of Oregon, US

US20010056365 – School and Office Product System, Yvonne M. Hutterer, Jon R. Wyant, Brendan J. Boyle, Trygve A. Faste, Jeffery A. Grant, Tami Koenig, S. Jacob Olefsky, April 10, 2000

SERVICE: PRODUCT DESIGN PROGRAM, UNIVERSITY OF OREGON

2014– 2015 IDSA University of Oregon Student Club Advisor

2010 – present Search Committee

 Admissions/Scholarship Committee

 Curriculum Committee

 Personnel Committee

 Exhibitions Committee

 Design Review/Self-Study Committee

 Visiting Lecturer Committee

 Basic Design Sketching, Guest Lecturer, PD 101

 Sponsored studio development support for:

 Arcimoto, PD 484 Studio, 2011

 Green Lite Motors, PD 484 Studio, 2011

 Sustainable Cities Initiative for Springfield, OR, PD 484 Studio, 2011

SERVICE: SCHOOL OF ARCHITECTURE AND ALLIED ARTS, UNIVERSITY OF OREGON

2015 A&AA New Building Internal Work Group

2010 – 2015 Art Department MFA Reviews (6)

2010 – 2015 Architecture Department Reviews (4)

2010 – 2012 A&AA Academic Affairs Committee

SERVICE: PROFESSIONAL

2013 Juror, Taiwan International Student Design Competition, Product Design Category
Taiwan Ministry of Education, Taipei, Taiwan (invited)

2010 – 2013 Industrial Design Society of America (IDSA), Western District Education Representative (elected)

2012 Juror, paper submissions, IDSA National Conference

2012 Juror, IDSA student undergraduate and graduate scholarships, \$2500 each

2012 Organization Committee, National IDSA Education Conference

2012 Student Merit Awards Competition Organizer, Western District Conference, Seattle, WA

- 2012 Session Chair, IDSA National Conference, Boston, MA
- 2011 Juror, paper submissions, IDSA National Conference
- 2011 Juror, IDSA student undergraduate and graduate scholarships, \$2500 each
- 2011 Organization Committee, National IDSA Education Conference

JURIED STUDENT WORK AWARDS

- 2015 Michelin Challenge: 2016 Mobility for All, Top 14 projects, URRU by Conner Macfarlane, Collin Lafayette and Cole Watson
- 2013 Power Play, PD 484 Team Project, IDSA IDEA Awards, Finalist
- 2012 Land Art Generator for Freshkills Park Competition: PD 484 Team Project “Power Play” selected as one of 25 teams shortlisted in a completion of over 250 professional and student submissions from 39 countries.

EXHIBITION OF STUDENT WORK

- 2014 *Process of Design, UO Product Design*, White Box Gallery, Portland OR
- 2013 *LAGI Freshkills Park Finalists*, Leader for the final project submission, Arsenal Gallery (Central Park), NYC, (Juried)
LAGI Freshkills Park Finalists, Leader for the final project submission, thejamjar, Dubai, UAE, (Juried)
PD Senior Preview Show, Laverne Krause Gallery, Lawrence Hall, University of Oregon, Eugene, OR
- 2012 *LAGI Freshkills Park Finalists*, Leader for the final project submission, SOHO Gallery for Digital Art, NYC, (Juried)
PD Senior Preview Show, Laverne Krause Gallery, Lawrence Hall, University of Oregon, Eugene, OR
Freshkills Sneak Peak, Top 25 Projects for the LAGI Competition, NYC
- 2011 *The Electric Local*, Green Vehicle Design, White Stag Commons, University of Oregon, Portland OR

SHORT COURSES AND WORKSHOPS

- 2014 UO PD Design Week Portland Workshop: Drawing with Copic Markers
Childrens Hospital Art Program Workshop, One Grand Gallery, Portland, OR
- 2012 Kokeshi Painting Workshop, Oregon Nikkei Endowment, Portland, OR
- 2011 International Design Alliance Young Designers Workshop, Technology Toys-Design of Children’s Intelligent Toys, Tatung University, Taipei City, Taiwan

TEACHING

University of Oregon

<i>course no.</i>	<i>title</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
PD 410	Digital Drawing	4	16	Summer 2015
PD 370	Design Process	4	44	S 2015
PD 485	Senior Studio (Hanergy Competition)	4	15	S 2015
PD 323	Design Drawing	4	20	W 2015
PD 484	Senior Studio (Michelin Challenge)	4	14	W 2015
PD 410	Digital Drawing	4	20	F 2014
PD 323	Design Drawing	4	19	Summer 2014
PD 410	Digital Drawing	4	19	S2014
PD 370	Design Process	4	46	S2014
PD 223	Beginning Design Drawing	4	19	W2014

PD 483	Senior Studio (Track Town)	4	15	F 2013
PD 323	Design Drawing	4	20	F 2013
PD 323	Design Drawing	4	23	Summer 2013
PD 223	Beginning Design Drawing	4	20	S 2013
PD 370	Design Process	4	43	S 2013
PD 484	Senior Studio (Survival)	4	14	W 2013
PD 323	Design Drawing	4	28	W 2013
PD 406	Special Projects (Drawing)	4	1	W 2013
PD 483	Senior Studio (IHA Competition)	4	13	F 2012
PD 406	Special Projects	4	9	Summer 2012
	(Drawing, Project Voice Box and Bag Design)			
PD 323	Design Drawing	4	12	Summer 2012
PD 484	Senior Studio	4	12	S 2012
<i>course no.</i>	<i>title</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
PD 370	Design Process	4	41	S 2012
PD 406	Special Problems(Drawing)	4	7	W 2012
PD 323	Design Drawing	4	19	W 2012
PD 484	Senior Studio (LAGI Competition)	4	15	W 2012
PD 484	Senior Studio (IHA Competition)	4	13	F 2011
PD 406	Special Projects (Drawing)	4	1	Summer 2011
PD 323	Design Drawing	4	15	Summer 2011
PD 484	Senior Studio (Arcimoto)	4	20	S 2011
PD 370	Design Process	4	41	S 2011
PD 199 (223)	Beginning Design Drawing	4	34	S 2011
PD 406	Special Projects (Drawing)	1	1	S 2011
PD 323	Design Drawing	4	38	W 2011
PD 199 (223)	Beginning Design Drawing	4	30	W 2011
PD 323	Design Drawing	4	30	F 2010

California State University Long Beach

<i>course no.</i>	<i>title</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
DESN 232A	Visualization Techniques	3	24	Summer Session 2010
DESN 232B	Visualization Techniques	3	15	Spring Semester 2010
DESN 132B	Perspective & Rendering Systems	3	24	Spring Semester 2010
DESN 232A	Visualization Techniques	3	24	Fall Semester 2009
DESN 120A	Fundamentals of Design	3	24	Fall Semester 2009
DESN 232A	Visualization Techniques	3	24	Summer Session 2009
DESN 232A	Visualization Techniques	3	24	Spring Semester 2009
DESN 132B 02	Perspective & Rendering Systems	3	24	Spring Semester 2009
DESN 132B 03	Perspective & Rendering Systems	3	24	Spring Semester 2009
DESN 132B 04	Perspective & Rendering Systems	3	24	Spring Semester 2009
DESN 120A	Fundamentals of Design	3	24	Fall Semester 2008
DESN 132A	Perspective & Rendering Systems	3	24	Fall Semester 2008
DESN 232A	Visualization Techniques	3	24	Summer Session 2008

Rio Hondo College

<i>course no.</i>	<i>title</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
ART 130 Freehand	Drawing I	3	30	Spring Semester 2010
ART 130	Freehand Drawing I	3	30	Fall Semester 2009
ART 131	Freehand Drawing II	3	5	Fall Semester 2009

Otis College of Art and Design (Extension Program)

<i>course no.</i>	<i>title</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
XDWG1001	Drawing And Composition	1	12	Summer 2008
XPRD7600	Intro to 3D Design	1	4	Summer 2008
XPTG7049	Trompe L'oeil Painting	1	8	Summer 2008

Pierce College

<i>course no.</i>	<i>title</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
ART 207	Perspective Drawing	3	28	Spring 2008

Cranbrook Academy of Art

<i>course no.</i>	<i>title</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
Painting Dept.	Masters Thesis	x	18	Fall Semester 2005

Whitman College

<i>course no.</i>	<i>title</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
ART 267	Intermediate Painting	3	17	Spring Semester 2005
ART 301-CB	Into/Advanced Digital Media	3	6	Spring Semester 2005
ART 301-CA	Beginning digital media	3	10	Spring Semester 2005

ART 367	Advanced Painting	3	12	Fall Semester 2004
ART 301-CA	Beginning digital media	3	10	Fall Semester 2004
ART 301-CA	Beginning digital media	3	10	Fall Semester 2004

Stanford University

<i>course</i>	<i>units</i>	<i>enrollment</i>	<i>date</i>
PD Sketching Lab (Co-taught with Brian Zmijewski)	1	25	W1999

WONHEE JEONG ARNDT

Assistant professor
Product Design Program
School of Architecture and Allied Arts
University of Oregon

EDUCATION

- 2004-2006 Design Academy Eindhoven, Eindhoven, the Netherlands
Masters of Design, IM Masters
Masters Thesis: Making a flexible space in the rigid world
- 1998-2002 Kookmin University, Seoul, Korea
BFA, Sculpture

ACADEMIC POSITIONS

- 2013-present University of Oregon, Product Design Program, Eugene, OR
Assistant Professor, Product Design
- 2008-2013 University of Oregon, Product Design Program, Eugene, OR
Adjunct Professor, Product Design

PROFESSIONAL

- 2007-present Studio Gorm, Rotterdam, NL –Eugene OR
Partner, Designed Objects and Interiors
- 2006 Droog Design, Amsterdam, Eindhoven NL
Exhibition designer for world traveling exhibition 'Human Touch'

AWARDS/GRANTS

- 2015 IDEA Award International Design Excellence Award by IDSA, Silver medal with 'Shell Desk' design.
- 2015 CORE 77 Design Award 2015 Winner in Furniture and Lighting category with 'Shell Desk' design.
- 2015 NCIIA grant as a PI with Alexander Eckblad of Black Lodge Design Lab.
- 2014 Portland Development Commission grant, Enlightened Industry, Commercial LED Lighting.
- 2014 Top 10 women in design in the US by the IDSA Women In Design section
- 2014 IDEA Awards with 'Office Oasis' with John Arndt through UO Research Development Services
- 2013 RIGE New Junior Faculty Research Startup Program 2013-14 through UO Research Development Services
- 2013 Design Report Award Honorable mention, Salone Satellite, Milan Italy
- 2013 New Guard, nominated by Dwell Magazine as part of the new Guard 27 up and coming international designers
- 2012 Red Dot Design Concept Awards with 'Camp Stove'
- 2010 IDEA Award International Design Excellence Award by IDSA, Silver medal with 'Flow2'
- 2007 Nominated for Design Report Award, Salon Satellite, Milan, Italy
- 2001 Kwangju Ceramic Expo Sculpture park, Kwangju, Korea

PUBLICATIONS

(All publications are written by other authors about my work and featuring images of my work)

Books

- 2015 RE-INVENTING CONSTRUCTION, featuring Flow2 kitchen, Edited by Ilka & Andreas Ruby.
ISBN 978-3-9813436-2-5, Ruby press.
- 2015 KITCHEN KULTURE, Gestalten Press, Edited by Robert Klanten, Sven Ehmann, Michelle Galindo
Featuring Flow 2 kitchen, cutting board designs, serving trays and mobile tea bike.
- 2013 Sustainable Thinking, Ethical approaches to design and design management, by Aaris Sherin, Bloomsbury,
ISBN: 9782940496044, P 70
- 2012 Fabulous Furniture, Alice Chen, Karena Zu, Art Power ISBN: 9789881973559, China,
p 254-257, Featuring: #3 bent chair, #3Fabric chair, Flow 2 Kitchen
- 2011 Jetzt.(Now.) Perceptions of Time and Contemporary Design, Exhibition Catalog, Edited by Friederike
Fast, Jorg Hundertpfund, Michael Kroger, Kerber Art, ISBN: 978-3-86678-592-2, Germany p 31, 72- 75,
176-177.
Featuring: Lighting Bug, Learning Tea, Tea Box, Wood Peg Furniture system, Flow 2 Kitchen
- 2011 My Green City, R. Klanten, Gestalten Press, ISBN: 3899553349 / 3-89955-334-9, Germany p 83

- Featuring: Flow 2 kitchen
- 2011 Inside Prefab: The Ready-Made Interior Princeton Press, by Deborah Schneiderman, ISBN: 9781568989877, p 54-57
- Featuring: Flow 2 Kitchen
- 2011 Jardin & Design, Cite du Design, Marie-Haude Caraes et Chloe Heyraud, ISBN : 978-2-7427-9488-1, France, p 94, Featuring: Flow 2 kitchen
- 2010 Unexpected Guests, Yesterday's Houses Today's Design, exhibition Catalog, Coraini Edizioni, ISBN: 978-88-7570-243-4, Italy, Featuring: Camp bench
- 2010 The Heimtextil Trend Book, Here Design and the Future Laboratory, p 54-55,64-65
- Design Direction: Utility, Color Trend Forecasting Featuring: Camp Furniture with a detailed analysis of our color pallets used. color swatch samples developed based on our Camp furniture installation for color forecasting for 2012 product lines.
- 2010 Trend Forecasters Handbook, London, Laurence King books, by Martin Raymond, ISBN 9781856697026, p 69, Flow 2 Kitchen
- 2010 Product Design in the Sustainable Era, Taschen press, by Delcacio Reis, ISBN: 978-3-8365-2093-5, p 216-217, Featuring Flow 2 Kitchen
- 2010 Hot Trend 2010, Korean Trend Forecasting institute, Leaders Book Publisher, p 329-330
- Featuring: Flow 2 kitchen,
- 2009 Once Upon A Chair, Design Beyond the Icon R. Klanten Gestalten Press, ISBN 978-3-89955-256-0, p 42-43
- Featuring: Cloud Lamp, #3 chair
- 2008 Desire, the shape of things to come, R. Klanten, Gestalten Press, ISBN: 978-3-89955-218-8, p 52-53,161,209, Featuring: Camp furniture, Flow kitchen, Shed Shelf, Plug Lamp, Pole Lamp, Paper Spot, Lighting Bug, Platform Bed, Shed Shelf

Professional Journals

- 2013 Design Report, Germany, June, profile of the winners of the Design Report Award, German, English
- 2010 Innovation, Quarterly of Industrial Designers Society of America, *Yearbook of Design Excellence IDEA awards*, USA September, English, p 106, Flow 2 kitchen
- 2009 Object, the journal for applied arts, *Panorama, everything flows, the boundaries between avant-garde furniture design and art blur*, Germany, June, German, English, Pascal Johanssen, p 18-19
- 2009 Textile View, Netherlands, Summer, English

Professional and Public audiences

- 2014 Gray Magazine, 'Finding Beauty' Studio Gorm, 3 page profile, USA, December, p 148 – 150.
- 2013 MD International, *prnterview* Studio Gorm 3 page profile, Bulgaria, September, July, p 94-97, Russian, English
- 2013 Dwell Magazine, *Satellite Broadcast*, US designers in Milan, July/August, p 60, exhibition view of our booth in the Salone Satellite Milan, English
- 2013 Financial Times, London, House and Home Interiors, April 6/7, a two page article about sustainable design in Seattle, Studio Gorm featured on both pages, Milk Bottle lamp, #3 Fabric Chair Flow 2 kitchen
- 2013 Arquitectura y Diseno magazine, *Energy and Sustainability*, Spain, Portugal, South America, July, p153, Flow Kitchen Spanish
- 2012 ViewPoint Magazine, Exploring the Way we Live, *The Information: The newest and best in technology, design, art and architecture*, London, Autumn Winter, p12 Wood Peg furniture
- 2012 Wallpaper Magazine, *To DIY for, the new generation of Flatpacks*, Henrietta Thompson, UK, October, p 80-81, #3 Fabric Chair, circulation105,328
- 2012 Dwell Asia, In the Modern World, Design Intelligence from Around the Globe, Front Piece, September October, English p11
- 2012 Dwell, US, May, (the now 99, Studio Gorm recognized as one of the New Guard, top 27 up-and-coming international designers) p 80-88, circulation 325,000
- 2012 Cubes Magazine, Design, Space, Life, *Kids Room*, Singapore, February, p 57, Cloud Lamp, English
- 2011 Walpaper Magazine, UK September, p 225 Peg Frame furniture System
- 2011 Arquitectura y Diseno, *The New Ecological Kitchen*, Barcelona, April, Flow2, Spanish, Portuguese
- 2011 A Vivre, *Histories of Tables*, France, February,p46, Wood Peg, French
- 2011 Ktirio, Architecture and Design, *Green Kitchen Design*, Greece March, Flow 2, Greek,
- 2011 Sanctuary: Modern Green Homes, Australia, March, English
- 2011 Wohnrevue, Interior and Design, *Talent Studio Profile*, #3 chairs, construction quilt, shed shelf, peg

- furniture, Switzerland, March, p24, German
- 2011 Dolce Vita, *First Class, The best in International Design*, Czech Republic, February, Flow 2 Kitchen, Czech
- 2011 A Vivre, France, March/April, French, p37 cap lamp
- 2011 Hiše Magazin, Israel, February, p 36, Flow Kitchen Hebrew
- 2010 Pasajes Diseno, *Pragmatismo Temporal*, Javier Pena, Spain October, p 6, Peg furniture system, Spanish,
- 2010 Dwell Magazine, US, March, Peg Furniture, English
- 2010 Cubes Magazine, Singapore, February, p 22, Peg Furniture, English
- 2009 Victoire Belgium, December, French,
- 2009 Nisha Magazine, Israel, November, p 24, Flow 2, Hebrew
- 2009 Deco Journal, *Design Story*, Studio Gorm Profile, Korea, September, #3 Chair, Peg Furniture System, Flow 2 Kitchen, Korean
- 2009 LA Times Brand X, *Kitchen Unplugged*, LA, September, Back Cover image, Flow 2
- 2009 La Republica, D Casa, Italy, February, Italian
- 2009 Lapiz, Spain, February, Spanish
- 2008 Actief Wonen, Belgium, February, Dutch
- 2007 Icon, Design, UK, July, English
- 2007 Marie Clair, Featuring Shed/Shelf, Lighting Bug, Korea, Korean

EXHIBITIONS (selected)

- 2014 Product Design Program exhibition, White Box gallery, during the Portland Design Week, Portland OR
- 2014 Woman In Industrial Design, Astro studio, San Francisco
- 2014 "Salone Satellite", "New work by Studio Gorm", Juried Exhibition, Salone Mobile International, Milan IT
- 2013 *The Future of Home Living*, invitational, Curated by NY based think tank PSFK, The 101, New York, NY. An interactive space showcasing tomorrow's ideas and innovations in modern urban living.
Featuring: Peg Frame Furniture system
- 2013 "Salone Satellite", "New work by Studio Gorm", Juried Exhibition, Salone Mobile International, Milan IT
Featuring: Sprung Chair, Scene Carpets, Judd Coffee Table, Spade Coat Hooks, Basket Tray, Sand bag Table, Block Lamp
- 2013 "Here and There" Invitational, Curated by Jonah Takagi of Field, exhibition during NY Design Week, Various Projects, New York, NY
Featuring: Camp Furniture, Plug Lamp, Tea Box
- 2012 *Excellent Craft at the Court at the House van Orange* International Invitational, curated by Nicole Uniquole, Oranienbaum Palace, Dessau-Worlitz Germany
Featuring: Tea Box, Learning Tea
- 2011 *Now! Perceptions of time and contemporary design*, International Invitational, curated by Friederike Fast, MARTa Herford Museum Herford Germany
Featuring: Wood Peg furniture system, Flow 2 Kitchen, Tea Box, and Learning Tea
- 2011 *Timeline*, a permanent installation representing a selection of the entire collection and exhibition material from the museums history Curator and Designer with Wonhee Jeong Arndt, Museum of Contemporary Craft, Portland Oregon
- 2010 *Studio Gorm, a collection of work*, the Directorenhaus gallery, curated by Pascal Johanssen, Berlin Germany
Featuring: Wood Peg system, Flow 2 kitchen, Camp Furniture series, Plug Lamp, Learning Tea, Cap Lamp and Hat Lamp
- 2010 *Unexpected Guests, Homes of Yesterday, Designs of Today*, over two hundred objects designed between 2000 and today by the most ground-breaking international designers and produced by the top industrial companies, International Invitational, Curated by Beppe Finessi, Italo Lupi, Annalisa Zanni, Bagetti Valsecchi Museum, Milan Italy
Featuring: Camp Bench
- 2009 *The Academy is Full of Craft*, Exhibition design with Wonhee Jeong Arndt, Curated by Namita Wiggers, the Museum of Contemporary Craft Portland Or
- 2009 *Call and Response*, National Invitational, Curated by Namita Wiggers, Museum of Contemporary Craft, Portland Oregon
Featuring: Flow 2 Kitchen, Shed Shelf

2008 *ADX Furniture Dig*, National Invitational, curated by Eric Black, ADX, Portland Oregon
Featuring: Camp furniture, Plug Lamp, #3 chair and bench

2008 *Product Design Faculty Exhibition*, Curator and Exhibition Design with Wonhee Jeong Arndt, White Stag Building, Portland Oregon
Featuring: Flow 2 Kitchen, Peg Furniture, Paper Spot lamp, Shed Shelf, Plug Lamp, Pole Lamp, Cloud

2008 *Studio Gorm, Products and Prototypes*, curator with Wonhee Jeong Arndt, Design within Reach, Milwaukee Studio, Milwaukee WI
Featuring: Flow 2 Kitchen, Shed Shelf, Construction Quilt, Platform Bed, Hedra Lamp, Plug Lamp Bast Chair, Paper Spot Lamp

2007 International Invitational exhibition, Gwangju Design Biennale, Seoul, Korea
Featuring: Shed/Shelf, Lighting bug

2007 *Elle Wonen, Inside Design*, International Invitational, curated by Mirella Sahetapy Amsterdam
Featuring: Plug Lamp, Flying Light, Left handed tea set

2007 *Talents*, Tendence Lifestyle Faire, Ambiente, International Invitational, Curator, Messe Frankfurt, Germany
Featuring: Camp furniture, Plug Lamp, Flying Light, Laptop bag,

2007 *Salone Satellite*, Juried Submission, Salone de Mobile, Milan, IT
Shed Shelf, Camp Furniture, Lighting bug, Plug Lamp, Laptop Bag

2006 Master piece, Droog gallery, Amsterdam, NL

2006 A Preview, De Rechter, Dutch Design Week, Eindhoven, NL

2006-2007 Human Touch, Bund 18 Creative Center, Shanghai, China
Human Touch, Contemporary Art Terminal OCT, Shenzhen, China
Human Touch, Sydney Opera House Gallery, Sydney, Australia
Human Touch, Melbourne Museum, Melbourne, Australia
Human Touch, Lower Hutt, New Zealand
Human Touch, Erasmus Huis, Jakarta, Indonesia

2005 Wet, Rotterdam architecture biennial, Rotterdam, NL

2005 Station Stage, Prorail, Amsterdam, NL

INVITED LECTURES, Workshops, Conference

2014 Academy for survival workshop, a part of the living through making project by Abigail Newbold , one day workshop and lecture with MFA Applied Craft and Design students, PNCA, Portland OR

2014 Oregon Best Fest, conference, Presenting UO Experimental Materials Lab class, Portland OR.

2013 Cranbrook Academy of Art, Bloomfield hills MI
Studio Gorm, 'Rituals of Use', 5 days workshop with 3D design graduate program and lecture sponsored by Knoll International.

2011 California College of Art, San Francisco CA
Ordinary Influences, design of Studio Gorm, with John Arndt

2010 Tatung University, Taipei Taiwan
Taiwan Ergonomic Society Conference, Workshop with Nancy Cheng and John Arndt

2009 University of Wisconsin Madison, Madison WI
Review Graduate student work. Present work of Studio Gorm

TEACHING

Date	Course No.	Title	Units	Enrollment
S2015	PD 301	Intro to Design Studio	4	about 40
W2015	PD 240	Designers' Tools	4	19
W2015	PD 484	Senior Studio 2	4	16
F2014	PD 240	Designers' Tools	4	19
F2014	PD 410	Experimental Materials Lab	4	18
F2014	PD240	Designer's Tool	4	20
	PD410	Experimental Materials Lab	4	15
Sm2014		Academy for survival workshop, a part of the living through making project by Artist Abigail Newbold, one day workshop with MFA Applied Craft and Design students, PNCA, Portland OR		15
S2014	PD485	Corporate Studio sponsored by Portland Development Commission, collaboration with LED Trail	4	15
S2014	PD301	Intro to Design Studio	4	21
W2014	PD240	Designer's Tools	4	18

F2013	PD 483	Personal studio	4	16
F2013	PD 410	Experimental Materials Lab	4	16
S2013		Cranbrook Academy of Art, Bloomfield hills MI - 5 days workshop with 3D design graduate program		
S2013	PD 485	Corporate studio	4	12
W2013	IARCH 486	Furniture Design	6	13
W2013	IARCH 586	Furniture Design	6	3
F2012	PD 410	Experimental Materials Lab (Energy Efficient Windows and Doors)	4	14
S2012	PD 240	Designer's Tools	4	14
W2012	PD 484	Senior Studio (Future Food)	4	10
F2011	PD 484	Senior Studio (Simplify and Enhance)	4	13
F2011	PD 410	Experimental Materials Lab Sustainable, non toxic, lightweight work surfaces, sponsored by Herman Miller Inc.	4	11
W2011	PD 410	Experimental Materials Lab (Eco composite)	4	16
F2010	PD 484	Senior Studio (Symbiosis)	4	16
S2010	PD 410	Flat Pack (Rhino 3D production)	4	22
Sm2010	PD 408	Experimental Materials Lab Sustainable car interior, sponsored by Arcimoto	4	7
W2010	PD 484	Senior Studio (Food)	4	22
W2010	ART 116	3D Basic Design	4	18
S2009	ART 116	3D Basic Design	4	19
S2009	ART 116	3D Basic Design	4	17
W2009	ART 116	3D Basic Design	4	16
Sm2009	PD 408	Urban Survival Project (Portland)	4	11

STUDENT AWARDS

- 2015 March Alexander Eckblad received the NCIIA Grant for 'Black Lodge Design Lab' for stage 2.
The grant amount is \$20,000
- 2014 July Alexander Eckblad received the NCIIA Grant for 'Black Lodge Design Lab' for stage 1.
The grant amount is \$5000
- 2013 Oregon Best Red List Design Challenge competition, the second prize by Alexander Eckblad with Cellulose Nanofiber insulation blind developed from PD410 Experimental Materials Lab class in Fall 2012

SERVICE

SERVICE UO

2015 White House Make Schools, a core member representing UO among 150 universities in US.

SERVICE A&AA

2014-present A&AA Academic Affairs Committee

SERVICE PRODUCT DESIGN

- 2015 Director of Product Design Program curriculum committee
- 2015 Curating and coordinating the University of Oregon Product Design exhibition at the ICFF during the New York Design Week
- 2014 Curating and coordinating the University of Oregon Product Design exhibition at the White Box Gallery during the Portland Design Week
- 2014-present PD faculty search committee
- 2013-present Product Design Curriculum Committee, development of new Master program for Product Design Program
- 2014 Curating University of Oregon Product Design Salone Satellite exhibition during Milan Design Week at the Salone Internazionale del Mobile, Milan Italy
- 2013 Curating Product Design Program exhibition with John Arndt at the WhiteStag building in Portland, Process of Design
- 2013 Curating Product Design Graduation Exhibition, Romania building
- 2012 Curating Product Design Graduation Exhibition, Romania building
- 2010 Curating ICFF Preview Show, Laverne Krause Gallery
- 2008 Product Design Faculty Exhibition, White Stag building

CURRICULUM VITAE

Elizabeth (Beth) Esponnette

Personal Information

- Email: bespo@uoregon.edu
- Website: esponnette.com
- Office location: Mill Race 4, Room 110, University of Oregon, Eugene, OR 97403

Current

- Assistant Professor, Product Design, University of Oregon, September 2015 - Present
- Co-founder and Chief Visionary, unspun, June 2015 - Present

Education

- MFA Design, Joint Program in Design, Stanford University, 2013 - 2015
- BS Fiber Science & Apparel Design, Cornell University, 2006 - 2010

Additional Education

- Lorenzo de' Medici, Study Abroad and Homestay in Florence, Italy, 2009
- Pratt Institute, Fashion Design Summer Program, 2005

Courses Taught

- Product Design 430: Computer Aided Design & Production, University of Oregon, Fall 2015
- Introduction to Basic Sewing, TechShop Menlo Park, 2012 - 2013
- Introduction to Embroidery on a Machine, TechShop Menlo Park, 2012 - 2013
- Introduction to Industrial Sewing, TechShop Menlo Park, 2012 - 2013
- Introduction to Sewing on a Serger, TechShop Menlo Park, 2012 - 2013
- Sumobot Challenge Group Event, TechShop Menlo Park, 2012 - 2013

Courses Assisted

- Mechanical Engineering 115b: Product Design Methods, Stanford University, Winter 2014
- Mechanical Engineering 115a: Human Values in Design, Stanford University, Fall 2014
- Artstudio 160: Design I, Stanford University, Winter 2013

Skills

- Garment design, development, construction, manufacturing
- Manual patternmaking (flat drafting, sloper manipulation, draping)
- Digital patternmaking (Optitex patternmaking software)
- 3D body scanning and software (Scanworks, Bodyworks)
- Season product planning and organization (WebPDM, plmOn software)
- Additive manufacturing, 3D printing
- CAD (Solidworks), CAM (HSM Works), CNC Milling (HAAS)
- Industrial machinery, manufacturing (metalworking, woodworking, plastics)
- Design Thinking (as taught by Stanford d.school)
- Adobe Creative Suite
- Electronics and Arduino tinkering, Java, Python, HTML, CSS
- Fiber, fabric, chemical treatment testing
- Scanning Electron Microscopy

Work Experience

- Co-founder & Chief Visionary, unspun, Summer@Highland, Highland Capital Partners, 2015
- Softgoods Design & Engineering Intern, Ekso Bionics, Summer 2014
- Instructor, TechShop Menlo Park, June 2012 - October 2013
- Materials Researcher, Mountain Hardwear, June 2011 - September 2012
- Product Development Associate, Pearl Izumi, June 2010 - June 2011

Undergraduate Internships

- Design Intern, Jill McGowan, Summer 2009
- Menswear Intern, Ralph Lauren, Summer 2008
- R&D Intern, TexTech Industries, Summer 2007

Research Experience

- Firefighter and PPE Researcher, Advisor: Prof. Susan Ashdown, Cornell University, 2009 - 2010
- Design Process Researcher, Advisor: Prof. Fatma Mete, Cornell University, 2008
- Fiber Science Researcher, Advisor: Prof. Margaret Frey, Cornell University, 2007

Awards

- C. Diane Christensen Fellowship, 2013 - 2015
- Stanford Arts Stipend, 2014
- Faculty-Chosen Outstanding Senior Award, Cornell University, 2010
- International Textile and Apparel Association (ITAA) Exhibition Award, 2010
- Cornell University Big Idea Competition Finalist, 2010

Exhibitions

- Beautiful Users (Ekso Bionics), Cooper Hewitt, Smithsonian Design Museum, 2015
- Art of Science, Packard Atrium, 2015
- Art Thesis, Thomas Welton Art Gallery, 2015
- Personal Statements, Stanford Joint Program in Design, 2014
- Display and presentation of self-directed work, Ekso Bionics, 2014
- Meet the Makers, Stanford Product Realization Lab, 2013 - 2015
- TechShop Open House, Jean Construction Demonstration, 2012
- International Textile and Apparel Association Exhibition, 2010
- Fiber Science & Apparel Design Department Exhibitions, Fall 2006 - Spring 2010
- Cornell Design League (now Cornell Fashion Collective) Fashion Show, Senior Line, 2010
- Cornell Design League (now Cornell Fashion Collective) Fashion Show, 2008
- Cornell Design League (now Cornell Fashion Collective) Fashion Show, 2007
- Fashion Design Student Work, Pratt Institute, 2005

Conferences

- Maker Faire, San Mateo, CA, 2015 (showed introductory work for unspun)
- TEI, Stanford University, CA, 2015 (assisted with set up and running workshops)
- Inside 3D Printing Conference, Santa Clara, CA, 2014
- Google Glass Explorer Invitational Conference, Computer History Museum, Mountain View, CA, 2013 (interviews with Explorers shown in feature video)
- After Dark: Wearable Technologies, Exploratorium, San Francisco, CA, 2014 (Ekso Bionics featured)
- Outdoor Retailer, Salt Lake City, UT, 2011 - 2012 (on business for Mountain Hardwear)

- ASTM International - 9th Symposium on Performance of Protective Clothing and Equipment: Emerging Issues and Technologies, Anaheim, CA, 2011 ('Assessing user needs and perceptions of firefighter gear' poster featured)
- Interbike, Las Vegas, NV, 2010 - 2011 (on business for Pearl Izumi)

Published Material

- Barker, J., Boorady, L.M., Lin S-H., Lee, Y-A, Esponnette, E. & Ashdown S.P. Assessing user needs and perceptions of firefighter PPE. *Performance of Protective Clothing and Equipment: 9th Volume, Emerging Issues and Technologies*. Ed. A. M. Shepherd. ASTM International: West Conshohocken, PA, 2012
- Esponnette, E. & Ashdown, S.P., 'Three Case Studies to Determine Issues with Fit and Function of Firefighter Turnout Gear.' Special Report for Globe Manufacturing, 2009

Patents & Invention Disclosures

- Esponnette, E., Poletti, M., Hovorka, G., Provisional: 62/139,756
- Tsai, H, Esponette, E., and Ashdown, S.P., Firefighter Hood with Impact Protection, Invention Disclosure, Cornell Center for Technology Enterprise and Commercialization # 5186, 2010

Service

- Advisor, Design for America (UO chapter), 2015 - Present
- Exhibit Design Volunteer, Exploratorium, 2014 - Present
- OTL iFarm MedTech Researcher, TES treatment for neuropathic pain, 2014 - 2015
- Google Glass Explorer Interviewer and Storyteller, 2013
- Farming Volunteer, WWOOF Norway, India, Canada, 2013
- Volunteer, Boulder Homeless Shelter, 2010 - 2011

Academic Interests

- Additive manufacturing techniques for textile products
- Researching, designing, testing products and their effect on human augmentation (soldiers, athletes, industry), and human rehabilitation (injured, disabled)
- New parametric and generative design practices for textile products

Athletic Experience

- Two-time USCSA Nordic Skiing All-American, Cornell University, 2006 - 2010
- Nordic Skiing Captain and Coach, Cornell University, 2009 - 2010
- Maine High School All-State Honors in soccer, nordic skiing, lacrosse, 2002 - 2006
- Coastal Premier Soccer Team, 2000 - 2006
- Olympic Development Program Soccer Team, 2004 - 2006

Ultramarathon Races

- Dick Collins' 50 Mile Trail Run 2014
- Dick Collins' 50 Mile Trail Run 2013
- Birkebeinerrennet 54k Ski Race 2013
- Headlands 50 Mile Trail Run 2012
- Dick Collins' 50 Mile Trail Run 2011
- Coureur des Bois 90k Ski Race 2011
- American Birkebeiner 54k Ski Race 2011

HALE SELEK

EDUCATION

ISTANBUL TECHNICAL UNIVERSITY, 2005-2008, Istanbul, Turkey

Master of Science in Industrial Product Design

Selek, H. (2008). Relationship Between SMEs and Industrial Design: An Evaluation of the ITU-ISO Industrial Design Projects for SMEs from the Perspective of SME Representatives. Master of Science Thesis. Istanbul Technical University, Istanbul, Turkey.

ECOLE SUPÉRIEURE D'ART ET DE DESIGN, 2007, Reims, France

Master of Art in Industrial Design

Erasmus Exchange Programme

MIDDLE EAST TECHNICAL UNIVERSITY, 1999-2004, Ankara, Turkey

Bachelor of Industrial Design

Ranked 3rd among 31 graduates of the Department of Industrial Design
GPA 3.26 / 4.00, Cum Laude

PROFESSIONAL EXPERIENCE

UNIVERSITY OF OREGON, September 2015-Present, Eugene, USA

Assistant Professor, Department of Product Design

Design studio and lecture courses are given at different levels, while conducting practice based research. Courses: PD 240- Designers' Tools; PD 483- Senior Studio I

// pd.uoregon.edu

IOWA STATE UNIVERSITY, 2013-2015, Ames, USA

Lecturer, Department of Industrial Design

Design studio courses are given at sophomore, junior, senior and graduate levels. Sponsorship projects were founded, coordinated and ran, including 15k Tupperware and Boeing projects. Thesis research and design projects were supervised at Master's program. Among the academic roles being held were industrial design faculty senator and design faculty representative of student affairs committee.

Courses: INDD 202- Industrial Design Studio II; INDD 301- Industrial Design Studio III; INDD 302- Industrial Design Studio IV; INDD 401- Industrial Design Option Studio; INDD 499- Senior Project; INDD 502- Industrial Design Studio Intensive II; INDD 504- Industrial Design Studio II: Service Design; INDD 507- Industrial Design Practicum: Sponsor Studio

// www.design.iastate.edu/industrialdesign/

IOWA STATE UNIVERSITY, 2013, Rome, Italy

Lecturer, Department of Industrial Design

At ISU Rome facilities, design studio courses were given to junior, senior and graduate level industrial design students. Throughout the course collaboration with European Institute of Design (IED) Rome was developed and field trips and design studio visits in Milan and Rome were organized and led.

Courses: INDD 495- Industrial Design Studio

// www.design.iastate.edu/industrialdesign/

MASSEY UNIVERSITY, 2012, Auckland & Palmerston North, New Zealand

Senior Tutor, School of Engineering and Advanced Technology

The new design courses were designed and then delivered both on site and via videoconferencing to engineering students at different levels in both Albany/ Auckland and Manawatu/ Palmerston North

campuses. The project based courses aim to bridge engineering knowledge with industrial design by introducing design tools and techniques and equipping students with creative thinking skills.

Courses: 198.308- Industrial Design Special Topic A (Product Design I); 141.112/ 228.112 Engineering Practice 2: Creative Solutions

// seat.massey.ac.nz

AUCKLAND UNIVERSITY OF TECHNOLOGY, 2012, Auckland, New Zealand

Lecturer, School of Art and Design

The core studio course was given to 1st year product design students. The course focused on formal-aesthetics, visual language, design principles and their application on products, and project based learning of design history. Work involved administration of teaching subjects and supervision of projects.

Courses: 115.100- Product Design I Core Studio

// aut.ac.nz

MASSEY UNIVERSITY, 2009-2012, Auckland, New Zealand

Senior Tutor, College of Creative Arts

Lecture and design studio courses were given to 3rd and 4th year visual communication, industrial design and transport design students. Work involved design, coordination and administration of teaching subjects and supervision of research and design projects at undergraduate level.

Courses: 198.251- Industrial Design I; 198.361/ 197.375- ID Multimedia/ Integrated Design Multimedia; 198.380/ 197.380- ID Theory & Research/ Design Research Methods; 222.344- Packaging Design

// creative.massey.ac.nz

MG DESIGN GMBH, 2007, Stuttgart, Germany

Product Designer, Design Department

Worked as a product designer in the design and consultancy firm that provides design service for a large portfolio of clients from variety of industries. Main responsibilities were design and development of exterior and interior elements of new lines of refrigerator, washing machine and oven concepts for one of the leading white goods manufacturing companies in Turkey, ideation and design development of electrical appliances for an international plastic manufacturer, visualization and modeling of these designs for client and market presentation.

// mg-design.org

DELTA MARINE ENGINEERING, 2005-2007, Istanbul, Turkey

Industrial Designer, Concept Design Department

Worked as a product designer in Turkey's one of the leading marine design companies. Responsibilities included design of accommodation units in accordance with maritime regulations; planning and design of cabin, room and kitchen environments; redesign of structural details of cargo ships, containers, oil and/or chemical tankers to increase their efficiency; design and production of interactive user guides for the company developed advanced engineering solutions and analysis programs; and development of visual identity of the company.

// deltamarine.com.tr

ARCELIK A.S., 2005, Istanbul, Turkey

Master's Degree Project, Industrial Design Department

Worked as a concept developer in a collaborative refrigerator interior design project undertaken by Istanbul Technical University, Industrial Design Department and the company's Research and Development Department.

// arcelik.com.tr

ECZACIBASI VITRA, 2004, Istanbul, Turkey

Graduation Project, Vitrified Ceramic Sanitary-ware Plant

For degree project, worked in collaboration with the company's design department, and designed and developed a new washbasin model. The prototype was displayed in international and national design fairs, building sector trade shows, design magazines and media.

// vitra.com.tr

DESIGN RESEARCH

INTERESTS

Design Education for Non-Designers; Experimental Design and Manufacturing Techniques; Form Development in Product Design; Design Informed by Subconscious Behavior; Aesthetics of Human-Product Interaction; Practice-based Design Research.

CURRENT RESEARCH

'3D Fabric Forming: Experimentation in use of thermoforming processes on nonwoven fabrics'

PUBLISHED PROCEEDING

Selek, H. (2009). Industrial Design for SMEs: Evaluation of a Design Collaboration Project from the Perspective of SMEs, Proceedings of IASDR 2009 Conference: Design - Rigor - Relevance, 18-22 October 2009, COEX Seoul, S. Korea.

THESIS SUPERVISION

Ellora Hans-Price, MID Candidate- Industrial Design, Thesis Committee Chair, 2013-2015
Thesis Title: Meeting Stockholm: How can design encourage Swedes to interact with each other?

Mitchell Hinrichsen, MID Candidate- Industrial Design, Thesis Committee Member, 2013-2014
Thesis Title: Playing Music Using the Environment

Jean Kim, MID Candidate- Industrial Design, Thesis Committee Member, 2013-2014
Thesis Title: Connecting Cars with the Outside World

Carlos Ramirez, MID Candidate- Industrial Design, Thesis Committee Member, 2014-2015
Thesis Title: Inclusive Wheel Design for Trucks

Ryan Pecinovsky, MID Candidate- Industrial Design, Thesis Committee Member, 2014-2015
Thesis Title: Designing Habits for a Healthy Living for College Students

Ryan Nieland, MID Candidate- Industrial Design, Thesis Committee Member, 2014-2015
Thesis Title: Affordance Transfer in Product Design

Joshua Larson-Konar, MID Candidate- Industrial Design, Thesis Committee Member, 2014-2015
Thesis Title: How to Design Diabetes Medical Devices that Lessen Stressful Interactions?

INDEPENDENT PROJECT SUPERVISION

Christine Tran, BID Industrial Design & Kurry Watson, BSc Computer Science & Physics, 2013
Project Title: Blink: Smart Phone Application for Sharing the Moment

Jon Manoles, BID Industrial Design & David Zenor, BID Industrial Design, 2013
Project Title: Backpack Furniture

Jordan Zimmerman, BID Industrial Design, 2014
Project Title: Use of Negative Space in Seating Unit Design

Taylor Allenback, BID Industrial Design, 2014
Project Title: Lighting Design by Healing Wounds of Found Woods

AWARDS

DESIGN EDUCATORS AWARD

According to Design Intelligence rankings report 2015, selected as one of the 30 Most Admired Educators in United States.

WORKSHOPS & EXHIBITIONS

INNOVATION WORKSHOP, 18-20 January 2014, Ames, US

Designed, developed, organized and ran three day long design thinking workshop, teaching design thinking methods to interdisciplinary teams which was funded by Procter& Gamble. The workshop brought a variety of disciplines including biology, engineering, psychology together to find answers to real problems in the areas of food and nutrition, diversity, access to education and young employment. The workshop aims to reach out non-designers to solve any given problem with the designerly ways of thinking and the methods they learn and practice during the workshop.

DESIGN A SHADOW, 04 July 2013, Rome, Italy

Prepared, organized and ran cross-cultural workshop together with Erdem Selek, for which light is used as the material and shadow as the inspiration to design products.

D-THINKING WORKSHOP, 25 September 2012, Auckland, New Zealand

Ran design thinking workshop together with 'Better by Design' in collaboration with 'Product Development and Management Association of New Zealand' (PDMA-NZ) to introduce user-centered design process and design thinking methods to executives and managers of leading companies in New Zealand.

USER-CENTERED DESIGN, 02 August 2012, Auckland, New Zealand

Invited as guest lecturer to 228.292-Industrial Innovation and Improvement course at Massey University, School of Engineering and Advanced Technology for a month. Developed and ran user-centered design workshop that aims to equip engineering students with an understanding about the user needs and perspectives in a given project. Student teams were also supervised throughout the semester long 'New Concept Development' project.

SKETCHING WORKSHOP, 08 March 2012, Palmerston North, New Zealand

Prepared and ran day long workshop that covers ideation sketching and constructive drawing techniques for engineering students without previous design knowledge.

MILAN FURNITURE FAIR, 2007, Milan, Italy

Exhibition of my room divider project 'Ironic' at Salone Satellite.

ANTALYA MUNVITZ CERAMIC AND BATHROOM FAIR, 2005, Antalya, Turkey

Exhibition of my washbasin project 'Drops' at the industry organization.

ISTANBUL INTERNATIONAL DESIGN FAIR, 2004, Istanbul, Turkey

'Exhibition of my washbasin and furniture projects 'Drops' and 'Furniture Parcel Post'.

4th INTERNATIONAL DESIGN & EMOTION CONFERENCE, 2004, Ankara, Turkey

'Exhibition of my washbasin and furniture projects 'Drops' and 'Furniture Parcel Post'.

MILAN FURNITURE FAIR, 2004, Milan, Italy

'Exhibition of my furniture project 'Furniture Parcel Post' at Salone Satellite.

SKILLS

DESIGN

Creative Idea Generation; Form Development; Clay Modeling; Plastic, Wood and Metal Prototyping; Digital Manufacturing; Visual and Verbal Communication Techniques; Photography.

COMPUTER

3D Modeling Softwares:

Rhinoceros 4.0 & V-Ray Renderer Plug-in, Discreet 3D Studio Max 5.0, SolidWorks 2008 & Keyshot Renderer Plug-in, Autodesk Autocad 2004

Graphics Editing Softwares:

Adobe Photoshop CS6, Adobe Illustrator CS6, Adobe InDesign CS6, Adobe Flash CS6

Office Softwares:

Microsoft Word 2008, Pages V5.1, Microsoft Powerpoint 2008, Keynote V6.1, Microsoft Excel 2008, Numbers V3.1

LANGUAGES

Turkish (native), English (fluent), French (intermediate), Italian (intermediate)

Erdem Selek

5282 University of Oregon
Product Design Program
Eugene, OR 97403-5282

www.erdemselek.com
contact@erdemselek.com
+1 515 4415672

Education

Istanbul Technical University, Istanbul, Turkey [2005-2008]

Master of Science in Industrial Product Design
GPA 3.30 / 4.00

Dissertation: An Inquiry into the Attitudes of Small and Medium Sized Enterprises Towards Sustainable Design

Ecole Supérieure d'Art et de Design de Reims, Reims, France [2007]

Master of Art in Industrial Design
Erasmus Exchange Program

Middle East Technical University, Ankara, Turkey [2002-2004]

Bachelor of Industrial Design in Industrial Product Design
GPA 3.29 / 4.00, Cum Laude

Ranked 2nd among 31 graduates of the Department of Industrial Design

Istanbul Technical University, Istanbul, Turkey [2000-2002]

Bachelor of Science in Industrial Product Design
GPA 3.51 / 4.00

Transferred to Middle East Technical University in 2002

Professional Experience

University of Oregon, School of Architecture & Allied Arts, Eugene, United States [2015-]

Assistant Professor in Product Design Program, Eugene, United States [2013-present]

Working as Assistant Professor in the Product Design Program. The work involves giving design studio courses and lectures at undergraduate level and engaging in research and scholarly activities. Lectures given: Design for Use, Beginning Design Drawing.

— pd.uoregon.edu

Iowa State University, College of Design, Ames, United States [2013-2015]

Assistant Professor in Industrial Design Department, Ames, United States [2013-2015]

Assistant Professor at ISU Rome Facilities, Rome, Italy [2013]

Working as Assistant Professor in the Department of Industrial Design. The work involves preparing and giving lectures, planning new lectures, supervising undergraduate and graduate students, engaging in research and scholarly activities, thesis supervision, undertaking administrative duties. Lectures given: Industrial Design Studios III-IV, Creative Thinking, Sponsored Studio-Boeing, Graduate Studio I-II, Design Thinking.

— www.design.iastate.edu

Massey University, Auckland School of Design, Auckland, New Zealand [2008-2013]

Lecturer (equivalent to Asst. Prof. in US) in Industrial Design Department [2011-2013]

Senior Tutor in Industrial Design Department [2010-2011]

Tutor in Industrial Design Department [2008-2010]

Worked as a lecturer in the Department of Industrial Design. The work involved preparing and giving lectures, planning new lectures, supervising undergraduate and graduate students, research. Lectures given: Industrial Design Studios II-III-IV, Usability Design, Computer Applications, Sketching, Industrial Design Theory and Research, Industrial Design Technology, Furniture Design, Design Multimedia, Web Design, Industrial Design Research Projects.

— creative.massey.ac.nz

MG Design GmbH, Product Design & Consultancy, Stuttgart, Germany [2007-2008]

Product Designer in Design Department

Participated in various product development projects. Main contributions included design and development of washing machines, refrigerators, ovens for one of the leading home appliances manufacturer of Europe.

— www.mg-design.org

Armada Yacht, Antalya, Turkey [2007]

Freelance Industrial Designer

Exterior Design of 55' Fly Motor Yachts were developed for Antalya based marine design company.

— www.armadayat.com

Delta Marine Engineering Company A.S., Istanbul, Turkey [2005-2006]

Product Designer in Concept Design Department

Worked as a product designer in Europe's one of the largest project development firm in marine industry. Main contributions included preliminary design of container ships, passenger ferries, oil and chemical tankers.

— www.deltamarine.com.tr

Eczacıbasi Vitra A.S., Istanbul, Turkey, [2004]

Graduation Project

Bathroom furniture and sanitaryware products were designed for world's 5th largest sanitaryware manufacturer company.

— www.vitra.com.tr

Istanbul Kalem Sanayi Ltd., Istanbul, Turkey, [2003-2004]

Freelance Industrial Designer

Promotional products were designed.

Infotron A.S., Istanbul, Turkey, [2003]

Internship in Product Development Department

Participated in research and development phase of various projects.

— www.infotron.com.tr

Adnan Serbest Furniture, Istanbul, Turkey, [2003]

Industrial Designer in Design Department

Participated in furniture design projects as a part-time designer.

— www.adnanserbest.com

Designbase Ltd., Istanbul, Turkey, [2002]

Internship in Design Department

— www.tasarimussu.com.tr

Kelebek Mobilya Sanayi ve Ticaret A.S., Furniture Company, Istanbul, Turkey, [2001]

Internship in Concept Design Department

— www.kelebek.com.tr

Research Interests

Dimensions of product design; Principles of visual-aesthetics in product design; Product semantics; Cognitive psychology in industrial design; Design Usability; Dimensions of creativity in product design; Biological-analogies in design; Application of systems theory to product development; Product design for sustainability; Design methods; Design process in industrial design education.

Design Skills

Proficiency

Creative Thinking; Design Usability; Form Development; Sustainable Design; Systems Design; Design Research; Design Thinking

Visual Communication

Tablet Sketching; Freehand Sketching; Typography; Photography; Multimedia

Prototyping

Clay Modelling; Digital Fabrication; Woodworking; Electronics Prototyping; Thermoforming; Silicone molding

Computer Skills	<p>3D Computer Graphics Softwares Rhinoceros 4.0 & V-Ray for Rhino v3 v 1.00, Poser 5.0, Autodesk Autocad 2004, SolidWorks 2008 (<i>Intermediate</i>), Autodesk AliasStudio 2008 (<i>Intermediate</i>), Discreet 3D Studio Max 5.0 (<i>Intermediate</i>), Bentley MicroStation V8 (<i>Intermediate</i>), Opticore Opus Realizer 1.3 (<i>Intermediate</i>), Aveva - Tribon M3 Lines (<i>Intermediate</i>)</p> <p>Multimedia & Graphics Editing Softwares Adobe Photoshop CS6, Adobe Illustrator CS6, Adobe Flash CS6, Adobe InDesign CS6, Adobe After Effects 5.5 Final Cut Pro 7, Ulead PhotoImpact 8, Autodesk SketchBook Pro 2010, FontCreator 5.6</p> <p>Web Development Softwares Adobe Dreamweaver CS6, Frontpage 2000</p> <p>Windows Office Microsoft Word 2008, Microsoft Powerpoint 2008, Microsoft Excel 2008, Microsoft Access 2008</p> <p>Programming & Hardware C++ (<i>Beginner</i>), Arduino, HTML (<i>Beginner</i>), JavaScript (<i>Beginner</i>), PHP (<i>Beginner</i>), CadSoft EAGLE</p>
Exhibitions & Seminars	<p>imm Cologne Fair, Cologne, Germany [2010] Exhibition of my ceramic and furniture projects ‘Oluk’ and ‘Kök’</p> <p>Antalya Munvitsz Ceramic & Bathroom Fair, Antalya, Turkey [2005] Exhibition of my washbasin project ‘Yaprak’</p> <p>ADesign Fair, Istanbul, Turkey [2004] Exhibition of my washbasin project ‘Yaprak’</p> <p>KOSGEB entrepreneurship certificate program, Ankara, Turkey [2004]</p> <p>Milano Furniture Fair, Milano, Italy [2004] Exhibition of my digital pillow project ‘Me+Esso’ at Salone Satellite.</p>
Workshops & Invited Lectures	<p>Innovation Workshop, Ames, United States [2014] Designed, developed and organized three-day long design thinking workshop teaching design thinking methods to interdisciplinary teams, which was funded by Procter&Gamble.</p> <p>Design-a-Shadow, Rome, Italy [2013] Together with Hale Selek, prepared and organized cross-cultural workshop that uses light and shadow as the materials to design products.</p> <p>University of Auckland, Faculty of Education, Auckland, New Zealand [2009] Invited speaker at Design, Graphic and Technology Teachers’ Professional Development Training, gave a seminar titled as “<i>Rapid Traditional 3D Modeling Techniques</i>”</p> <p>Istanbul Technical University, Department of Product Design, Istanbul, Turkey [2008] Guest lecturer for EUT282E Computer Aided 3D Modeling course.</p>
Extra Curricular	<p>The Design Section [2014-Present] Founder of an online design guide that offers design methods and lectures for industrial design professionals and students. — www.thedesignsection.com</p> <p>Turkish Industrial Designers Society - Junior (ETMK-Genç) [2002-2004] Founder member of Turkish Industrial Designers Society’s junior branch.</p> <p>Dexigner.com (later known as designophy.com) [2001-2002] Founder member of an industrial design periodical.</p>

Selected Press

Magazines

Casa Shopping (*Brazil, 2012*), Azimuts 35 (*France, 2011*), Shoes-up (*France, 2010*), AD Magazine (*Russia, 2009*), Casa a Roma (*Italy, 2009*), Lakáskultúra (*Hungary, 2008*), Bravacasa (*Italy, 2008*), IFJ (*India, 2008*), Design@Home (*France, 2008*), DalCasa (*Croatia, 2008*), Next Magazine (*Hong Kong, 2007*), AD (*Turkey, 2004*), Trendsetter (*Turkey, 2004*)

Books

Make Me Smile, Barcelona, Spain, 2014
Amber Trends 2011, Gdansk, Poland, 2011
Objet: Creative Idea & Unique Design, Seoul, Korea, 2009

Online Press

Yanko Design (*Korea, 2010*), Der Spiegel (*Germany, 2008*), Core77 (*USA, 2008*), Treehugger (*USA, 2007*), Makezine (*USA, 2007*), Yanko Design (*Korea, 2007*)

Nathan Demarest

US Citizen

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503-704-7968

nathan.demarest@gmail.com

OBJECTIVE

Adjunct Professor in the Sports Product Institute at the University of Oregon.

EDUCATION

1997 – 2000 **Cornell University**

Ithaca, NY

Fiber Science & Apparel Design (functional apparel design)

Graduation with an MA degree in May 2000

Worked as a Teaching Assistant while pursuing Masters degree. Taught/assisted with classes on basic apparel construction and apparel design history. Masters research was an evaluation of inflatable fabric cylinders for use in an elbow orthotic to aid in therapeutic recovery from joint contracture following immobilization due to a traumatic injury.

1993 – 1997 **Cornell University**

Ithaca, NY

Fiber Science & Apparel Design (Option I, apparel design)

Graduated with a B.S. degree in May 1997, Dean's List

Course work in functional apparel design, textile and fiber science, draping, patterning, human factors, biomechanics and engineering.

EXPERIENCE

Senior Digital Innovator,

Nike, Inc.,

Beaverton, OR

2013 November - present

Dual report to Apparel Innovation and the Digital Studio.

Facilitate collaboration between apparel design and digital product creation tools and processes. Research new technology that could be implemented into Nike's product creation process including, but not limited to, 3D modeling and rendering, apparel visualization and physics-based simulation, 3D printing and fabrication as well as data driven computational design practices such as generative, parametric and algorithmic methods. Work with research teams to facilitate visual communication of complex ideas and concepts to design and project teams. Proficient in 3D mesh modeling, animation and rendering using Blender 3D. Gaining deeper experience with other modeling software such as Maya and Modo, computational software like Rhino + Grasshopper and Processing, as well as cloth simulators including Vstitcher, Clo 3D, and Gerber Accumark.

Senior Apparel Designer, **Nike, Inc.**, Beaverton, OR
2003 July - 2013 November Member of Nike's Apparel Innovation Team working on functional apparel design solutions.

Worked with promotional and inline product teams to research, conceptualize, prototype and evaluate functional apparel designs. Used Adobe Photoshop and Illustrator to create concept sketches and illustrations. Gained experience with 3D tools including Browzwear, Sketchup, Maya, Modo and animation software including iMovie and Final Cut. Designed inline and promo apparel including high-profile products for the highest level athletic competitions. Sole designer of cycling kits for the US Postal Team for 2004 Tour de France. Used functional apparel principals to reimagine hockey uniforms for all federations in the 2006 Torino Winter Olympics. Engineered sprint/jump singlet and short to the unique athleticism of athletes such as hurdler Liu Xiang of China, decathlete Bryan Clay and pole vaulter Brad Walker of the U.S. for 2008 Beijing Olympics.

Apparel Design Consultant, **United States Marine Corps**, Natick, MA/Quantico, VA
2000 April - 2003 July Assisted with research, concept generation, and visual communication of new USMC battle dress uniform.

Traveled with project team to Marine Corps bases in California and North Carolina to gather individual Marine feedback. Created conceptual designs for new features/functions of the battle dress uniform and assisted in final feature selection. Provided illustration of concepts using Photoshop and Freehand and assisted with a web communication and feedback gathering strategy.

Digital Designer, **Deviron, LLC**, Ithaca, NY
1999 May - 2003 July Co-Founder. Develop imagery and digital content intended for online, print and multimedia productions.

Use Photoshop, Freehand, Dreamweaver, Flash, and other software to develop, create and implement communication and educational packages. High-level knowledge of HTML, Javascript, Cold Fusion and PSP used to improve and enhance communication through digital media.

Apparel Design Intern, **Nike Inc.**, Beaverton, OR
Summer break 1998 Researched and designed a racing cap for the 2000 Olympic Games' marathon runners

Researched physiology, aerodynamics, materials, and current running hats. Used Photoshop and Freehand software to develop presentation boards. Worked with product teams to create samples.

Pattern Maker, **USN Clothing and Textile Research Facility**, Natick, MA
Summer break 1996 Developed and graded patterns for the US Navy coverall deck suit. Used Investronica software to digitize, alter and grade pattern pieces. Plotted markers for use by Stearns Manufacturing for prototype construction. Sizing developed in an anthropometric course taken during the 1996 spring semester.

AWARDS

- Nike Maxim Award, "It is our nature to innovate."** Beaverton, OR
2004 Athens Olympic Kits, Contributed to the design of the cycling product intended for the Tour de France and the Athens Olympics.
- USOC Sport Science and Technology Committee,** Colorado Springs, CO
One of five design contest finalists in June 1996. Honorable Mention award for athletic court shoe design and presentation.
- Cornell Council for the Arts, Cornell University** Ithaca, NY
\$400 individual grant award for the 1997 Cornell Design League Show.

PATENTS

Source: USPTO database.

- Mayer, Kirk M. Demarest, Nathan. Hurd, Rebecca P. **Aerographics and denier differential zoned garments.** U.S. Patent 9,107,459, filed January 1, 2011, and issued August 18, 2015.
- Demarest, Nathan. Dedman, Alexander J. **Thermal energy dissipating garment with scalloped vents.** U.S. Patent 8,850,615, filed June 8, 2012, and issued October 7, 2014.
- Carbo, Jr, Jorge Emilio. Demarest, Nathan. **Monolithic protective article with flexible region.** U.S. Application WO 2,014,159,820, filed March 13, 2014
- Demarest, Nathan. Harvey, Travis. **Resilient band for article of apparel.** U.S. Patent 8,555,419, filed May 30, 2009, and issued October 15, 2013.
- Demarest, Nathan. **Interlocking Impact Protection System For Contact Sports.** U.S. Application 20,140,259,327, filed March 15, 2013.
- Demarest, Nathan. **Crumple Zone Garments Providing Enhanced Fit.** U.S. Application 20,130,191,958, filed January 1, 2012.
- Demarest, Nathan. MacDonald, Richard C. Carbo, Jr, Jorge Emilio. **Article of apparel for resistance training.** U.S. Patent 7,856,668, filed September 29, 2006, and issued December 28, 2010.
- Demarest, Nathan. 2006. **Closure mechanism for apparel.** U.S. Patent 7,036,190, filed March 19, 2004, and issued May 2, 2006.

QUALIFICATIONS

Knowledge of the apparel design process, from conceptualization through development to production. Strong background in human physiology and thermal management, along with an understanding of human biomechanic and aerodynamic principles as it relates to human powered activities. Comfortable working with professional and collegiate athletes to uncover insights beneficial to the design of sports product. Strong research skills and the ability to critically evaluate new design ideas against real world limitations and project briefed requirements. Experience with data visualization and the application of it to the design process to enhance comprehension of complex ideas.

HOBBIES

I'm a long time participant in the sport of ultimate frisbee having played at a club level while at Cornell University and continuing to this day as a weekly participant in pickup games in the Portland area. I was a founding member of both Vitamin I, a mixed club team in Ithaca NY, and IAUA, the Ithaca Area Ultimate Alliance summer league. I captained two Portland area mixed club teams for 5 years helping to organize, motivate, and grow the skills of my team members.

I'm a weekend home remodeler working on the current home I share with my wife as well as our 3 rental properties spread across Portland, OR and Upstate NY. Together we've done a little bit of everything from concepting and plan drafting, working with local building authorities and contractors, demolition, plumbing, electrical, mechanical, tiling, drywalling and too much painting.

REFERENCES

Su Sokolowski, Sr. Project Director. Nike, Inc. Apparel Innovation. susan.sokolowski@nike.com

Jorge Carbo, Sr. Apparel Researcher. Nike, Inc. Apparel Innovation. jorge.carbo@nike.com



UNIVERSITY OF OREGON

MEMORANDUM

DATE: November 30, 2015
TO: A&AA Academic Affairs Committee and The University of Oregon Committee on Courses
FROM: John Arndt, Interim Director of Product Design Program
SUBJECT: Master of Science in Sports Product Design Program: New Course Proposals

The Product Design Program at the University of Oregon is proposing a new Master of Science in Sports Product Design program. The Department requests approval of the following 7 new courses: 1 lecture course and 6 studio courses.

SPD 684

Sports Product Design Research Methodology and Innovation Process Studio
6 credits

This foundational graduate level studio course will have a strong focus on the design theories and methodologies used to design innovative sport products

SPD 685

Sports Product Design Studio I
6 credits

This course will explore the theories and creative problem solving methods used to design solutions for sport soft goods. How is an athlete's ability to perform successfully linked to the objects they wear on their body? How can design help shape the future of this product interface? Theories of human thermoregulation, hydro-protection, support, aerodynamics, wear-able electronics and kinematics will all be considered, to generate innovative solutions in the field.

SPD 650

Sports Product Materials and Manufacturing
3 credits

This course will explore the materials science, manufacturing and sustainability theories applied in sports product design

SPD 686

Sports Product Design Studio II
6 credits

This course will explore the theories and creative problem solving methods used to design solutions for sports footwear. How is an athlete's ability to perform successfully linked to the objects they wear on the foot/ankle? How can design help shape the future of this product interface? Mechanical theories of cushioning, stability, support, traction and slipping/sliding will be considered, to generate innovative solutions in the field.

PRODUCT DESIGN PROGRAM

5282 University of Oregon, Eugene OR 97403 T 541- 346-6697 F 541- 346-3626 pd.uoregon.edu

An equal-opportunity, affirmative-action institution committed to cultural diversity and compliance with the Americans with Disabilities Act



UNIVERSITY OF OREGON

SPD 687

Product Design Studio III

6 credits

This course will explore the theories and creative problem solving methods used to design solutions for sport hard goods.

How is an athlete's ability to perform successfully linked to the objects that they manipulate and utilize? How can design help shape the future of this interaction?

Performance theories related to dexterity, cranial protection, transportation and safety will be considered, to generate innovative solutions in the field. Creative problem solving and use of the "Medici Effect" phenomenon will be used as methods to generate innovative solutions around this topic

SPD 688

Sports Product Design Innovative Project Strategy Development Studio

6 credits

Part I of a two-term capstone graduate level studio course that critically looks at the alignment of design, materials, science, sustainability, research and business theories to create an innovative sports product design opportunity

SPD 689

9 credits

Part II of a two-term capstone graduate level studio course that critically looks at the alignment of design, materials, science, research and business theories to create an innovative sports product design opportunity.

Thank you for your time in reviewing this proposal. If there are any questions or concerns, please let me know.

John Arndt

Associate Professor
Interim Director
Product Design Program
University of Oregon

PRODUCT DESIGN PROGRAM

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Proposal For a New Course

College	School of Architecture and Allied Arts
Department	Product Design Program
Subject	Sports Product Design
Graduate Course Number	SPD 684
Graduate Course Title	Sports Product Design Research Methodology and Innovation Process Studio
Minimum Course Credits	6
Maximum Course Credits (per instance)	6
UO Grading Option	Graded only
Course Level	Graduate only
Instructional Type	Studio
Faculty Available to Teach	Susan L Sokolowski, PhD or New Sports Product Design TTF Hire (Fall 2017), Trygve Faste, Erdem Selek, Hale Selek and Sports Product Design Adjunct Faculty
Previous Course Number	None
How Often Course Will Be Offered	Offered year 1 (Fall Term) in the MS Sports Product Design Program
Course Description	This foundational graduate level studio course will have a strong focus on the design theories and methodologies used to design innovative sport products
Weekly Contact Hours	6
Weekly Out-of-Class Workload	18
Gen-Ed Group Satisfaction	Does not satisfy Gen-Ed Group requirement
Gen-Ed Multicultural Satisfaction	Does not satisfy Gen-Ed Multicultural requirement
(Taught By) Other Department	This course content is solely taught by this department
Budgetary Impact	None
Department Authorization	John Arndt (Acting Product Design Program Director)
Data Entry Performed By	Susan L Sokolowski, PhD

NEW COURSE PROPOSAL

**SPORTS PRODUCT DESIGN RESEARCH METHODOLOGY AND INNOVATION PROCESS
STUDIO
SPD 684**

Course Proposal Submitted: November 2015

Contact: Susan L Sokolowski, PhD, Associate Professor of Product Design, Director of Product Design Portland Programs and Co-Director of the Sports Institute, School of Architecture and Allied Arts

1. **Course Number:** SPD 684
2. **Course Title:** Sports Product Design Research Methodology and Innovation Process Studio
3. **Credits:** 6
4. **Term, Place, Time and Instructor:** This is a new course. It will be offered during year 1 of the MS in Sports Product Design Program. It will be offered during Fall Term, beginning in Fall 2016 on Tuesdays and Thursdays from 9am to 11:50am (at the Portland White Stag PD Studio). It will be taught by Associate Professor Susan L Sokolowski, PhD (Product Design) or the new Sports Product Design TTF Hire (Fall 2017), Trygve Faste, Erdem Selek, Hale Selek and Sports Product Design Adjunct Faculty.
5. **Position in the Curriculum:** This course is open to 1st year students of the Sports Product Design Master's Program. This course does not satisfy a Group, Multicultural or other General Education requirement. This course is preparatory for SPD 685 and SPD 650. There are no prerequisites for this class.
6. **Format:** Studio/Lab.
7. **Outline of Subjects and Topics Explored** (See Expanded Course Description for More Details):
 - I. Overview of the Course's Theoretical Framework and Seminar Discussion Topics - Intent
 - A. Syllabus overview
 - B. IRB review process
 - C. Market size and brand overview
 - D. Sports product classification overview
 - E. Performance needs for athlete/user overview
 - F. Overview of the sport design research process

- II. Sport Historical and Market Design Innovation Research
 - A. Historical case study (including state-of-the-art product)
 - B. Visual timeline development of product worn through history for case study
 - C. Competitor landscape (brands, products, price points, materials features and benefits)

- III. Sport Materials and Manufacturing Design Innovation Research
 - A. State of the art materials and manufacturing
 - B. Alternative materials and manufacturing processes

- IV. Sport Silhouette, Color and Graphics Trend Design Innovation Research
 - A. Product silhouette trends
 - B. Color trends
 - C. Graphic trends

- V. Sport Environment and Athlete Design Innovation Research
 - A. Sport playing field and arena
 - B. Sport rules and success (winning)
 - C. Positions and athlete experience
 - D. Athlete insights

- VI. Sport Product Design Innovation Opportunity Brief - Synthesis
 - A. Product name
 - B. Season of delivery
 - C. Retail price point/FOB
 - D. Description of consumer and environment
 - E. Product goals
 - F. Performance features and benefits
 - G. Materials direction
 - H. Styling, color and graphics direction

- VII. Sport Product Design Innovation Realization
 - A. Ideation and prototyping planning
 - B. Concept selection planning
 - D. Validation and testing planning
 - E. Implementation and production planning

- VIII. Sport Product Design Innovation Brief and Presentation
 - A. Design research summary
 - B. Final product brief

8. **Course Materials:**

Required Text:

Vijay Kumar, 101 Design Methods: A Structured Approach for Driving Innovation in Your Organization (Hoboken: John Wiley and Sons, 2013).

9. **Instructor Expectations of Students:** Students will be expected to attend all classes, participate in all seminar discussions/critiques, do readings of approximately 30

pages/week, complete and present at all studio critiques, and present at the final studio project critique (with a digital presentation). For this course students will be require to conduct user/athlete testing in order to learn about collecting insights and the process involved. This class will also require the knowledge of pattern drafting, writing, sketching/ideation, 3D modeling, technical drawing and prototyping.

9. Assessment:

Reading Responses	5%
Studio Assignment 1	10%
Studio Assignment 2	10%
Studio Assignment 3	10%
Studio Assignment 4	10%
Studio Assignment 5	10%
Studio Assignment 6	10%
Studio Assignment 7	10%
Final Studio Project	20%
Attendance + Participation	5%
TOTAL	100%

Grading (letter grades will be determined as follows):

Grade	Points Used to Calculate GPA	Explanation	Percentage
A	4	Excellent	90% to 100%
B	3	Good	80% to 89%
C	2	Satisfactory	70% to 79%
D	1	Inferior	60% to 69%
F	0	Unsatisfactory	0% to 59%
+	+0.30	With A, B, C and D	-
-	-0.30	With A, B, C and D	-

Per University of Oregon Grading System <http://registrar.uoregon.edu/current-students/grading-system>

This course may not be taken pass/no pass. Projects are due at the time indicated. A project turned in late will be reduced by one full grade. One additional grade drop (10%) will result for each additional 24-hour period the project is late. Non-submittal will result in the grade of "0". Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required. Incompletes are not encouraged due to cadence and prerequisites of courses in the program. However, they may be issued when the student's work is satisfactory, but some minor essential requirements have not been finished. Students with an incomplete grade have one calendar year to make up the work, and will need to create (with the faculty) a robust contract detailing requirements and deadlines in order to remove the incomplete grade.

Expanded Course Description: The Sports Product Design Research Methodology and Innovation Process Studio is a foundational level graduate course that focuses on the design theories and methodologies (business, research, scientific, historical/field research, trend and materials/manufacturing), as applied to sports product design. Each student in the course will follow a specific sport case study to understand the evolution of its history, materials/manufacturing, trends, environmental and athlete insights, related to product design. In this

course students will learn how to plan and create a sports product design innovation brief. They will do this by understanding how to synthesize research into a product brief and evolve that brief into a comprehensive innovation process plan. The studio nature of this course encourages ideation and innovation, along with weekly reading responses and critiques where students will continue to refine their critical design thinking through seminar discussions and presentation skills.

Course Schedule: There will be two 2 hour and 50 minute sessions per week. Each class session will consist of a lecture/seminar discussion including reading responses and studio critiques by students (typically there will be an 40 minute lecture, a 10 minute break and then another 2 hours for discussion and student critiques). Weekly reading responses will be due at the beginning of class (in the first of two class sessions for the week). In addition to time spent in class, students will be expected to spend an average of 2.5 to 3 hours each week on readings and 18 hours on project work. Graduate students are expected to spend 40 hours of engagement for each credit hour. For this course, students should engage for approximately 240 hours.

Learning Outcomes:

As a result of taking SPD 684, students will learn how to:

- Navigate and understand the sports product design innovation process, in order to critically define new sports product design opportunities that generate new knowledge in the field.
- Conduct qualitative and quantitative design research to define a new sport product design innovation brief. This knowledge is critical for success in classes to follow in the MS in Sports Product Design Program.
- Communicate innovation opportunities with peers and instructors. Being an effective problem solver, storyteller and communicator is an important trait of a Sports Product Designer.

Week 1: Overview of the Course's Theoretical Framework and Seminar Discussion Topics - Intent

This course will start with an overview of the syllabus, IRB review process and seminar discussion around the history of the sports product design industry and how design research and innovation has evolved the field over the last 50 years. Students will understand the foundational product divisions: soft goods, footwear and hard goods, the global market size and key brands. They will also learn about key performance needs for athletes: impact protection/cushioning, fit/mobility, thermoregulation/dry, support/stability, recovery/repair, aerodynamics and feedback. An overview the sport design innovation research process will also be reviewed.

Readings and *Reading Responses:

Kumar (2013) Introduction

*Reading Responses will be due at the beginning each week throughout the course. Reading responses are 3 posed questions on 1 index card that will be used as part of the seminar discussion in class. They are handed in at the beginning of class.

Studio Assignment 1 - Sense Intent:

For this assignment determine the sport and product (soft goods, footwear and hard goods)

area that you will focus on as a case study for this course. Explain in a 3-page *11" x17" visual presentation why you think this topic area is important to innovate around. Discuss the product business landscape (page 1), and how the user's needs are currently unmet (page 2) and how innovative sports product design solutions could potentially revolutionize the field (page 3).

*This 11" x 17" layout format permits the assignment to be formatted into a design portfolio, while the digital presentation allows for an in-class seminar discussion and critique of the work, in order to generate innovative solutions for sports products. All assignments for this course will be formatted this way.

Studio Assignment 1 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 2.

Week 2: Sport Historical and Market Design Innovation Research

Seminar discussion on the reading responses (Introduction) and the continuation of sport product case study research, in order to critically define a new sports product design innovation opportunity. This week will focus on historical and market research theories. This type of research provides a high level overview of the sport product's history and identifies market gaps.

Readings and Reading Responses:

Kumar (2013) Mode 1: Sense Intent

Studio Assignment 2 - Historical and Market Research:

For this assignment, students will conduct historical and market research for their specific sport case study. This research will provide a baseline of knowledge for the student to start making hypotheses on new product design opportunities. Students will research and document in a 5-page 11' x 17" visual presentation layout the:

- Sport they will investigate
- Inventor of the sport
- When the sport was invented
- Sport product type they will investigate
- Location where the sport was invented
- State-of-the-art product used for this sport (materials, features and benefits)
- 1st product for this sport (materials, features and benefits)
- Visual timeline of the product worn through history for this sport
- Competitor landscape (brands, products, price points, materials features and benefits)

Page 1 will include the general sport product history. Pages 2 and 3 will provide a visual historical timeline of the product design. Page 4 will review the state-of-the-art product analysis and page 5 will include the competitor landscape. Studio Assignment 2 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 3.

Week 3: Sport Materials and Manufacturing Design Innovation Research

Seminar discussion on the reading responses (Sense Intent) and the methodologies used to research materials science and manufacturing processes related to sports product design, in order to critically define new innovative opportunities in the field. This research will help define what materials will be used and how they will be put together (manufactured) for a new design opportunity.

Readings and Reading Responses:
Kumar (2013) Mode 2: Know Context

Studio Assignment 3 – Materials and Manufacturing Research:

For this assignment, students will conduct materials and manufacturing process research for their specific sport case study. This research will provide a baseline of knowledge for the student to start making hypotheses on new material and manufacturing opportunities for sport product design. Students will research and document in a 2-page 11' x 17" visual presentation layout the:

- State-of-the-art materials used for the sport product
- Alternative material processes
- State-of-the-art manufacturing process used for the sport product
- Alternative manufacture processes

Page 1 will provide a materials and manufacturing analysis of the state-of-the-art product, where page 2 will theorize alternative materials and manufacturing methods for new product innovation in the field of sport. Studio Assignment 3 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 4.

Week 4: Sport Silhouette, Color and Graphics Trend Design Innovation Research

Seminar discussion on the reading responses (Know Context), and the methods used to research product, color and graphic trends related to sports product design, in order to critically define new innovative opportunities in the field. This research will help define the aesthetics of the new product design.

Readings and Reading Responses:
Kumar (2013) Mode 3: Know People

Studio Assignment 4 – Silhouette, Color and Graphics Trend Research:

For this assignment, students will conduct trend research related to their specific sport case study. This research will provide inspiration for the student to start making hypotheses on new silhouette, color and graphic opportunities for sport product design. Students will research and document in a 4-page 11' x 17" visual presentation layout of current:

- Product silhouette trends
- Graphic trends
- Color trends

Page 1 will provide product silhouette trends, where page 2 will review color trends and page 3 will overview graphic trends. The 4th page will summarize findings and show how they will be potentially applied to the specific sport product genre. Studio Assignment 4 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 5.

Week 5: Sport Environment and Athlete Design Innovation Research

Seminar discussion on the reading responses (Know People), and the research methods used to understand the sport environment and athlete/user, in order to innovate new design opportunities in the field. This area of research identifies the playing space/environmental conditions where the product needs to work/perform and specifically expresses the athlete/user's personal needs for a new sports product.

Readings and Reading Responses:
Kumar (2013) Mode 4: Frame Insights

Studio Assignment 5 – Environmental and Athlete/User Research:

For this assignment, students will focus on the environmental and athlete research related to their specific sport case study. This research will provide more specific information to the student in order to make hypotheses on new sport product performance and user-specific needs. Students will research and document in a 4-page 11' x 17" visual presentation layout the following:

- Sport playing field and arena
- Success (winning) in sport
- Athlete insights
- Sport rules
- Positions and athlete experience

Page 1 will visually review the sporting environment (field/arena), while page 2 will review the positions in the specific sport and general skills need to play the position. Page 3 will highlight sport specific rules and how one achieves success (winning) in the sport. Page 4 will review actual athlete insights gather by the student through a 1:1 interview. Studio Assignment 5 will be presented digitally, in front of the class, in a critique format. This assignment will be due at the beginning of Week 6.

Week 6: Sport Product Design Innovation Opportunity Brief - Synthesis

Seminar discussion on the reading responses (Frame Insights), and review of the outlined attributes in a sports product design brief. The product brief is a very important tool that is used by designers to outline research findings and needs for a new, innovative product. The product brief will be created in this course by synthesizing the work that was completed for studio assignments 1-5. The brief becomes the “contract” that is used throughout the design process, to align ideas and make sure the work throughout reflects the research and innovation opportunity.

Readings and Reading Responses:

Kumar (2013) Mode 5: Explore Concepts

Studio Assignment 6 – Product Design Brief:

For this assignment, students will create a sport product design innovation brief. The brief will be used during the design process, to help align research and innovative ideas so students can solve the problem originally identified effectively. Students will create a 2-page 11' x 17" brief, laying out the following:

- Product name
- Retail price point/Freight on Board
- Product goal (1-2 sentences)
- Materials direction
- Season of delivery
- Description of consumer and environment
- Performance features and benefits
- Styling, color and graphics direction

Page 1 will include product name, season, price, consumer/environment and product goals. Page 2 will outline performance features and benefits, materials direction and silhouette styling/color and graphic trends. Studio Assignment 6 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 7.

Week 7: Sport Product Design Innovation Realization

Seminar discussion on the reading responses (Explore Concepts) and how to build a design innovation process plan. The design innovation process plan is another important document that product designer use to plan their work, so it aligns to the brief, is effective and delivered

on time.

Readings and Reading Responses:

Kumar (2013) Mode 7: Realize Offerings and Mode 6: Frame Solutions

Studio Assignment 7 – Product Design Innovation Process Plan:

For this assignment, students will create a product design innovation process plan. The plan will be used during the design process, to help plan the work, so it aligns to the brief, is effective and is delivered on time. For this assignment, students will create a 3-page 11' x 17" plan, laying out the following:

- Ideation and prototyping plans
- Validation and testing plans
- Calendar
- Concept selection plans
- Implementation and production plans

Page 1 will review the ideation/prototyping and concept selection plans. Page 2 will outline the validation/testing and implementation/production plans. Page 3 will provide a calendar of the entire design innovation process plan. Studio Assignment 7 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 9.

Weeks 8, 9 and 10: Final Studio Project

Seminar discussion on the final course reading responses (Realize Offerings and Frame Solutions – week 8 only). For the remaining time of this course, students will critically devise a sport product design innovation opportunity final presentation by synthesizing the research, brief and project plan created throughout the course, into one concise multi-media presentation. This presentation should clearly demonstrate how the student utilizes new research to evolve the field of sports product design. The final studio project presentation needs to include: a summary of the design research, product brief and innovation process plan.

Finals Week: Final Studio Project Presentation of the Sports Product Design Innovation Opportunity

Final multi-media presentation and critique of each student's sport product design innovation opportunity. The project presentation will be due at the time scheduled for the final exam (there will be no final exam in the course). Project presentations should include: a summary of the design research, product brief and innovation process plan.

Structure, Assignments and Student Engagement:

- Students are required to engage in class with their peers and instructor. Seminar discussions, analyses of products and assignment critiques will occur. Various methods of engagement will be available, including questions submitted prior to class, in-class questions, and being called on for one's thoughts.
- For weeks 1-7, students will be assigned readings where they will be required to produce a series of "reading responses" in reaction to the content read. Reading responses for this course are 3 questions that the student may have as they read the required assignment, or questions that may probe the content. The questions are turned into the instructor at the beginning of each class on one index card. The instructor will review these responses in class (on the same day) and use them as a platform for scholarly discussion/seminar and further explanation of the concepts presented.

- Studio assignments 1- 7 allow students to research and understand the different elements needed to create design innovation project plan/brief, including: design research, product brief development and innovation process planning.
- For the final project, students will learn create a sport product design Innovation brief. This knowledge is critical for success in classes to follow in the MS in Sports Product Design Program.
- Studio assignments are not accepted late. They must be submitted in person when class begins. Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required.
- The studio nature of this course encourages making and innovation, along with weekly critiques where students will continue to refine their critical design thinking and presentation skills. Critiques in the field of product design are a collaborative process where the attendees involved provide feedback on the design work presented and how it aligns to the theories used to approach the work. Critiques in the academic environment also help students manage through the complex design process, to insure that their final solution solves the course goals, by providing a structured discussion around design methodologies and solution paths that may not have been considered by the student. Successful critiques are where the designer (student) has a clear understanding of their next steps (things to improve upon) and the understanding of what is working well (things to continue/elaborate upon).

Student Engagement Inventory: As a 6-credit graduate course, students are expected to spend a total of 240 hours for this course.

Educational Activity	Hours Student Engaged	Explanatory Comments
Course attendance	56	Classroom scheduled for 2hrs 50min/class x 2 times/week
Assigned readings	42	Assigned Textbooks
Project	80	Designed (by hand/computer) and physical prototypes of new sports apparel product concepts
Field work	38	Retail/sport environment research and athlete meetings for insights
Performance, creative activities	24	Product presentations and critiques
Total hours	240	

Documented Disabilities: Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the UO Accessible Education Center send a letter verifying the disability.

Academic Misconduct: You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct.

Plagiarism: Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas). If there is any question about whether an act constitutes academic misconduct, it is the student's obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at <http://library.uoregon.edu/guides/plagiarism/students/index.html>

Inclusion Statement: The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website at <http://bias.uoregon.edu/index.html> or by phoning 541-346-2037.

Interviews, Research Compliance Services and Institutional Review Board Protocols: In general, student interaction with individuals that occurs for the purpose of fulfilling a single course requirement does not require Research Compliance Services (RCS) and Institutional Review Board (IRB) review and approval because it does not meet the definition of "human subjects research," as that term is defined in the federal regulations on research with human subjects. However, there are times when students do engage in "human subjects research" that requires IRB review and approval as part of fulfilling a course requirement. Whenever a student interacts with individuals (or individually identifiable data) with the intent of sharing findings beyond the classroom (e.g. in a paper, conference presentation, video, etc.) for the purpose of expanding a body of knowledge, the interaction could constitute human subjects research requiring IRB review and approval. If at any point you would like to use data for a publishable paper, a conference presentation, etc., or if you are unsure about whether or not you need IRB review and approval, you should contact the University of Oregon Research Compliance Services office.

Proposal For a New Course

College	School of Architecture and Allied Arts
Department	Product Design Program
Subject	Sports Product Design
Graduate Course Number	SPD 685
Graduate Course Title	Sports Product Design Studio I
Minimum Course Credits	6
Maximum Course Credits (per instance)	6
UO Grading Option	Graded only
Course Level	Graduate only
Instructional Type	Studio
Faculty Available to Teach	Susan L Sokolowski, PhD or New Sports Product Design TTF Hire (Fall 2017), Beth Esponnette, Hale Selek and Sports Product Design Adjunct Faculty
Previous Course Number	None
How Often Course Will Be Offered	Offered year 1 (Winter Term) in the MS Sports Product Design Program
Course Description	This course will explore the theories and creative problem solving methods used to design solutions for sport soft goods. How is an athlete's ability to perform successfully linked to the objects they wear on their body? How can design help shape the future of this product interface? Theories of human thermoregulation, hydro-protection, support, aerodynamics, wear-able electronics and kinematics will all be considered, to generate innovative solutions in the field.
Weekly Contact Hours	6
Weekly Out-of-Class Workload	18
Gen-Ed Group Satisfaction	Does not satisfy Gen-Ed Group requirement
Gen-Ed Multicultural Satisfaction	Does not satisfy Gen-Ed Multicultural requirement
(Taught By) Other Department	This course content is solely taught by this department
Budgetary Impact	None
Department Authorization	John Arndt (Acting Product Design Program Director)
Data Entry Performed By	Susan L Sokolowski, PhD

NEW COURSE PROPOSAL

**SPORTS PRODUCT DESIGN STUDIO I
SPD 685**

Course Proposal Submitted: November 2015

Contact: Susan L Sokolowski, PhD, Associate Professor of Product Design, Director of Product Design Portland Programs and Co-Director of the Sports Institute, School of Architecture and Allied Arts

1. **Course Number:** SPD 685
2. **Course Title:** Sports Product Design Studio I
3. **Credits:** 6
4. **Term, Place, Time and Instructor:** This is a new course. It will be offered during year 1 of the MS in Sports Product Design Program. It will be offered during Winter Term, beginning in Winter 2017 on Tuesdays and Thursdays from 9am to 11:50am (at the Portland White Stag PD Studio). It will be taught by Susan L Sokolowski, PhD or the new Sports Product Design TTF Hire (Fall 2017), Beth Esponnette, Hale Selek and Sports Product Design Adjunct Faculty.
5. **Position in the Curriculum:** This course is open to 1st year students of the Sports Product Design Master's Program. This course does not satisfy a Group, Multicultural or other General Education requirement. This course is preparatory for SPD 686. The prerequisite for this course is SPD 684.
6. **Format:** Studio/Lab.
7. **Outline of Subjects and Topics Explored** (See Expanded Course Description for More Details):
 - I. Overview of the Course's Theoretical Framework and Seminar Discussion Topics
 - A. Syllabus overview
 - B. IRB review process
 - C. Overview of sport soft goods design categories and classifications
 - D. Anthropometrics and fit overview of the athlete's body
 - E. Physiological and physical athlete needs overview of soft goods design: thermoregulation and moisture management, impact and hydro protection, support, aerodynamics, safety and kinematics
 - F. Materials and product development process overview of sport soft goods design

II. Lower Body Sport Soft Goods Design Theory

- A. Market categorization and classification research
- B. Historical research and artifact analysis
- C. Anatomical, anthropometric and kinetics research
- D. Physiological and athlete perception research
- E. Design research methodology, including: ideation, prototyping and validation
- F. Materials and product development methodology, including: technical sketching, pattern drafting, materials, specifications and construction

*All subsequent subjects will follow these design research topics

III. Upper Body Sport Soft Goods Design Theory

IV. Next to Skin/Base Layer Sport Soft Goods Design Theory

V. Insulated Sport Soft Goods Design Theory

VI. Supportive Sport Soft Goods Design Theory

VII. Hydro Protective Sport Soft Goods Design Theory

VIII. Wear-able Sport Electronics Soft Goods Design Theory

IX. Sport Soft Goods Product Design Strategic Opportunity Development

- A. Identification of a new sport soft goods market opportunity and product classification
- B. Historical artifact analysis to identify design priorities for a new sport soft goods product
- C. Anatomical and anthropometric research to determine the new sport soft goods ergonomic shape and sizing needs for the athlete
- D. Physiological and physical athlete research as it relates to the new sport soft goods design opportunity
- E. Athlete insights through interviews related to the new sport soft goods design opportunity
- F. Development of a new sport soft goods product brief
- G. Ideation of new sports sport soft goods design opportunity
- H. Prototyping of new sport soft goods product opportunity, including technical sketch, patterns, material selection, specifications and construction

X. Sport Soft Goods Product Design Strategic Opportunity Presentation

- A. New sport soft goods design market opportunity and product classification
- B. Supporting research in historical artifact analysis, anatomical/anthropometric research, sport performance needs and athlete insights
- C. Design brief
- D. Design process documentation
- E. 1:1 scale prototype
- F. Multi-media presentation that supports the new sports soft goods design opportunity theory

8. Course Materials:

Required Texts:

Susan M Watkins and Lucy Dunne, *Functional Clothing Design: From Sportswear to Spacesuits* (London: Bloomsbury Publishing, 2015).

Helen Joseph Armstrong, *Patternmaking for Fashion Design – 5th Edition* (Upper Saddle River: Prentice Hall, 2009).

Mary Ruth Shields, *Industry Clothing Construction Methods* (London: Bloomsbury Publishing, 2010). *This book is for reference only, no required readings.*

Roshan Shishoo, *Textiles in Sport* (Cambridge: Woodhead Publishing, 2005). *This book is for reference only, no required readings.*

Supplies:

Sewing machine/bobbins and needles	10 yards of muslin
18" x 2" see through ruler	12" x 2" see through ruler
Latex rubber gloves	Seam ripper and Exacto knife
Paper and fabric scissors	French curve
24" hip curve	Tape measure
Tracing wheel and paper	Hand sewing needles
Tailor's wax (the kind that disappears when ironed/steamed)	Size 17 satin pins (pins with colored plastic ends will be unacceptable b/c they melt on equipment and materials)
1/4" black twill tape or 1/8" black Chartpak tape	Pencils (not mechanical)
Pencil sharpener	Toolbox for all supplies
Black and white thread	Pattern paper
Black or dark colored grease pencils or crayons	Index cards
10 yards of jersey knit	5 yards of 1/4" elastic
2 yards of 1x1 rib trim	Reclaimed sport soft goods artifacts (per the project assignments)

* Other supplies may be needed, per individual project needs.

9. **Instructor Expectations of Students:** Students will be expected to attend all classes, participate in all seminar discussions/critiques, do readings of approximately 30 pages/week, complete and present at all 7 studio critiques and present the final studio project (with a 1:1 scale prototype). Students will have to conduct market research and meet with athletes for insights. This class will also require pattern drafting, writing, sketching/ideation, technical drawing and prototyping (sewing, cutting, model making).

10. Assessment:

Reading Responses	5%
Studio Assignment 1	10%
Studio Assignment 2	10%
Studio Assignment 3	10%
Studio Assignment 4	10%

Studio Assignment 5	10%
Studio Assignment 6	10%
Studio Assignment 7	10%
Final Project	20%
Attendance and Participation	5%
TOTAL	100%

Grading (letter grades will be determined as follows):

Grade	Points Used to Calculate GPA	Explanation	Percentage
A	4	Excellent	90% to 100%
B	3	Good	80% to 89%
C	2	Satisfactory	70% to 79%
D	1	Inferior	60% to 69%
F	0	Unsatisfactory	0% to 59%
+	+0.30	With A, B, C and D	-
-	-0.30	With A, B, C and D	-

Per University of Oregon Grading System <http://registrar.uoregon.edu/current-students/grading-system>

This course may not be taken pass/no pass. Assignments are due at the time indicated. An assignment turned in late will be reduced by one full grade. One additional grade drop (10%) will result for each additional 24-hour period the assignment is late. Non-submittal will result in the grade of "0". Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required. Incompletes are not encouraged due to cadence and prerequisites of courses in the program. However, an Incomplete may be issued when the student's work is satisfactory, but some minor essential requirements have not been finished. Students with an incomplete grade have one calendar year to make up the work, and will need to create (with the faculty) a robust contract detailing requirements and deadlines in order to remove the incomplete grade.

Expanded Course Description (including subjects and topics to be explored): This studio is the first of three courses (SPD 685, SPD 686 and SPD 687) in which students will use theories in ergonomics/fit, materials, physiology/gender, physics/kinetics, electronics/energy, sustainability, safety, business and creative problem solving methods to explore and push the boundaries of new soft goods design solutions in the field of sports product design. Soft goods are one of the two major product classifications (the other is hard goods) that are products having a life span of less than three years. These products are typically made of soft materials like textiles, flexible plastics, fur, leather and vinyl. This course will address the relevant topics surrounding the link between an athlete's ability to perform successfully and the objects they wear, as well as how design can help shape the future of this interface. Students in this course will conduct historical research and investigate use and failure patterns from reclaimed soft good products in order to identify new design opportunities to enhance athletic performance and revolutionize the way that these products are made. Human anatomy, anthropometrics and kinetics will also be studied as it relates to sports soft goods product shaping, sizing and fit. Students will learn about the physiological and physical needs of soft goods design, including theories of: thermoregulation, hydro-protection, support, aerodynamics, safety and kinematics. They will learn about soft goods ideation, pattern drafting, and construction, in order to make relevant blue prints for product development. Materials science, including

electronics will be explored to understand the technical requirements, for soft goods design. In addition, students will explore how to draft technical flats and create specification sheets. The studio nature of this course encourages physical prototyping and innovation, along with weekly critiques where students will continue to refine their critical design thinking and multi-media presentation skills.

Course Schedule: There will be two 2 hour and 50 minute sessions per week. Each class session will consist of a lecture/seminar discussion including reading responses and studio critiques by students (typically there will be an 40 minute lecture, a 10 minute break and then another 2 hours for discussion and student critiques). Weekly written responses will be due at the beginning of class (in the first of two class sessions for the week). In addition to the time spent in class, students will be expected to spend an average of 2.5 to 3 hours each week on readings and 18 hours on assignments. Graduate students are expected to spend 40 hours of engagement for each credit hour. For this course, students should engage for approximately 240 hours.

Learning Outcomes:

As a result of taking SPD 685, students will learn how to:

- Explore the process of relentless self-improvement as a designer by researching historical and current trends/technologies, to develop new design solutions that enhance athletic performance and health, in order to revolutionize and innovate new knowledge in the field of sports product design.
- Define and understand the design theories used to solve problems for the key sports soft goods product design classifications.
- Conduct research relevant to sport soft goods design, including: human anatomy, anthropometry, physiology and user insights.
- Dissect and analyze sports soft goods product design artifacts to critically assess functional use, failure and sport-specific performance needs.
- Ideate, invent and prototype new sports soft goods product design ideas, through materials selection, pattern drafting, technical flats/specifications and construction.
- Build multi-media communication tools to identify and share with peers and the instructor new sports soft goods design innovation opportunities.

Week 1: Course Overview and Definition of Soft Goods in the Sports Product Design Industry

Course will start with an overview of the syllabus and IRB review process, followed by a discussion of the sport soft goods product industry, and the foundational theories (ergonomics/anatomical, materials, physiology, physics/kinetics, electronics/energy, safety and business) used to solve design problems for athletes. Key sport soft goods product categories and classifications, anthropometry and fit, physiology and physical athlete needs will also be discussed, along with the materials and product development processes used.

Readings and *Reading Responses:

Watkins and Dunne (2015) Chapter 1: User-Centered Design

Armstrong (2009) Chapters 24 and 25: Knock-off Copying Ready Made Designs/Pants

*Reading Responses will be due at the beginning each week. Reading responses are 3 posed questions on 1 index card that will be used as part of the seminar discussion in class. They are handed in at the beginning of class.

Studio Assignment 1 - Lower Body Sport Soft Goods Artifact Dissection (above the ankle):

For this assignment, students will focus and research lower body sport soft goods to back engineer how they were created and determine how they could be designed improve athlete fit, physiology and physical performance. The research and product opportunities identified for this project will be presented in a *3-page 11" x17" visual layout, that will also be shown digitally in class in a critique format. Discussion of the sport product under analysis should include: features, benefits, materials, parts and construction outlined on page 1. For page 2, fit, physiology and physical performance research should be outlined and summarized to identify new opportunities. For page 3, students should show through sketch form how the product dissection and background could revolutionize the field through a new product opportunity. The product opportunity page should also describe the new features, benefits, materials, parts and construction.

*This 3-page, 11" x 17" layout format permits the assignment to be formatted into a design portfolio, while the digital presentation allows for an in-class seminar discussion and critique of the work, in order to generate innovative solutions for sports products. All assignments for this course will be formatted this way.

Studio Assignment 1 will be presented via a multi-media presentation, in front of the class, in a critique format. It will be due at the end of Week 2.

Week 2: Lower Body Sport Soft Goods Design Theory

Seminar discussion of the assigned readings, including the theories used to design lower body sport soft goods. Students will research the key market silhouettes, historical evolution of the product genre, anthropometrical and fit needs, physiology and physical athlete requirements. Consideration for materials and product development processes will also be discussed, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Watkins and Dunne (2015) Chapter 3: Materials

Armstrong (2009) Chapters 26 and 27: Knits – Stretch and Shrinkage/Knit Foundation

Studio Assignment 2 - Upper Body Sport Soft Goods Artifact Dissection:

For this assignment, students will focus and research upper body sport soft goods to back engineer how they were created and determine how they could be designed to improve athlete fit, physiology and physical performance.

Studio Assignment 2 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 3.

Week 3: Upper Body Sport Soft Goods Design Theory

Seminar discussion of the assigned readings, including the theories used to design upper body sport soft goods. Students will research the key market silhouettes, historical evolution of the product genre, anthropometrical and fit needs, physiology and physical athlete requirements. Consideration for materials and product development processes will also be discussed, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Watkins and Dunne (2015) Chapter 2: Providing Mobility in Clothing
Armstrong (2009) Chapter 34: Tops

Studio Assignment 3 - Next to Skin/Base Layer Soft Goods Dissection:

For this assignment, students will focus and research next to skin/base layer sport soft goods to back engineer how they were created and determine how they could be designed to improve thermoregulation in hot sport environments and address gender performance needs.

Studio Assignment 3 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 4.

Week 4: Next to Skin/Base Layer Sport Soft Goods Design Theory

Seminar discussion of the assigned readings, including the theories used to design next to skin/base layer sport soft goods. Students will research the key market silhouettes, historical evolution of the product genre, anthropometrical and fit needs, physiology and physical athlete requirements. Focus this week will be on thermoregulation in hot sport environments and gender differences. Considerations for materials and product development processes will also be discussed, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Watkins and Dunne (2015) Chapter 5: Thermal Protection
Armstrong (2009) Chapter 28: Action Wear for Dance and Exercise

Studio Assignment 4 - Insulated Sport Soft Goods Dissection:

For this assignment, students will focus and research insulated sport soft goods to back engineer how they were created and determine how they could be designed to improve thermoregulation in cold sport environments and address gender performance needs.

Studio Assignment 4 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 5.

Week 5: Insulated Sport Soft Goods Design Theory

Seminar discussion of the assigned readings, including the theories used to design insulated sport soft goods. Students will research the key market silhouettes, historical evolution of the product genre, anthropometrical and fit needs, physiology and physical athlete requirements. Focus this week will be on thermoregulation in cold sport environments and gender differences. Considerations for materials and product development processes will also be discussed.

Readings and Reading Responses:

Watkins and Dunne (2015) Chapter 9: Commercial product development and production
Armstrong (2009) Chapter 36 Bodysuits, Leotards, Maillots and Swimwear

Studio Assignment 5 - Supportive Sport Soft Goods Dissection:

For this assignment, students will focus and research supportive sport soft goods to back engineer how they were created and determine how they could be improved for gender needs in sport, including breast, male genitalia and muscle support.

Studio Assignment 5 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 6.

Week 6: Supportive Sport Soft Goods Design Theory

Seminar discussion of the assigned readings, including the theories used to design supportive sport soft goods. Students will research the key market silhouettes, historical evolution of the product genre, anthropometrical and fit needs, physiology and physical athlete requirements. Focus this week will be on gender needs in sport, including the female breasts, male genitalia and muscle. Considerations for materials and product development processes will also be discussed, in order to define new innovative product solutions for the field.

Reading and Reading Responses:

Armstrong (2009) Chapters 22 and 32: Jackets and Coats/Collars, Sleeves and Skirts

Studio Assignment 6 - Hydro-Protective Sport Soft Goods Dissection:

For this assignment, students will focus and research hydro-protective sport soft goods to back engineer how they were created and determine how they could be designed to improve moisture management, aerodynamics and visibility needs.

Studio Assignment 6 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 7.

Week 7: Hydro-Protective Sport Soft Goods Design Theory

Seminar discussion of the assigned readings, including the theories used to design hydro-protective sport soft goods. Students will research the key market silhouettes, historical evolution of the product genre, anthropometrical and fit needs, physiology and physical athlete requirements. Focus this week will be on moisture management, aerodynamics and visibility. Considerations for materials and product development processes will also be discussed, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Watkins and Dunne (2015) Chapter 4: Smart Clothing and Wearable Technology

Armstrong (2009) Chapter 13: Skirts/Circles and Cascades

Studio Assignment 7 - Wear-able Sport Electronics Soft Goods Dissection:

For this assignment, students will focus and research wear-able sport electronic sport soft goods to back engineer how they were created and determine how they could be improved to consider power packs, energy harvesting, safety, and other athletic performance monitoring characteristics.

Studio Assignment 7 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 8.

Week 8: Wear-able Sport Electronics Soft Goods Design Theory

Seminar discussion of the assigned readings, including the theories used to design wear-able sport electronics sport soft goods. Students will research the key market silhouettes, historical evolution of the product genre, anthropometrical and fit needs, physiology and physical athlete requirements. Focus this week will be on batteries, energy harvesting, safety, and other athletic performance monitoring characteristics. Considerations for materials and product

development processes will also be discussed, in order to define new innovative product solutions for the field.

Final Project - Sport Soft Goods Product Design Opportunity:

From the work done through the term, students will focus on a unique sport soft goods product opportunity. Students will research, design, draft and build a 1:1 scale soft goods concept that encompasses the theories learned during the course. The product concept will be presented as the final for the class (along with a multi-media presentation).

For the beginning of Week 9 students will come prepared to present their sports product opportunity in terms of:

- Identifying a new sports soft goods market opportunity and product classification.
- Historical artifact analysis that identifies design priorities for a new sport soft goods product.
- Anatomical and anthropometric research that determines the new sport soft goods ergonomic shape and sizing needs for the athlete.
- Physiological and physical athlete research as it relates to the new sports soft goods design opportunity.
- Performance and athlete insights through interviews related to the new sports soft goods design opportunity.
- New sports soft goods product brief.
- Preliminary materials palette.

Weeks 9 and 10: Sport Soft Goods Product Design Opportunity

Students will continue to develop their sports soft goods design opportunity. For the final, students will establish their final design direction, then make patterns and their 1:1 scale product model to present at the final (along with a multi-media presentation).

Multi-media presentations should include:

- New sports soft goods market opportunity and product classification.
- Supporting research in historical artifact analysis, anatomical/anthropometric research, sport performance needs and athlete insights.
- Product design brief.
- Design process documentation.
- 1:1 scale prototype.

Finals Week: Sport Soft Goods Product Design Opportunity Presentation

Final multi-media presentation and critique of each student's new sport soft goods product opportunity and how the idea contributes new knowledge for the sports product design industry. The project presentation will be due at the time scheduled for the final exam (there will be no final exam in the course).

Structure, Assignments and Student Engagement:

- Students are required to engage in class with their peers and instructor. Seminar discussions, analyses of products and assignment critiques will occur. Various methods of engagement will be available, including questions submitted prior to class, in-class questions, and being called on for one's thoughts.
- For weeks 1-7, students will be assigned readings where they will be required to produce a series of "reading responses" in reaction to the content read. Reading

responses for this course are 3 questions that the student may have as they read the required assignment, or questions that may probe the content. The questions are turned into the instructor at the beginning of each class on one index card. The instructor will review these responses in class (on the same day) and use them as a platform for scholarly discussion/seminar and further explanation of the concepts presented.

- Assignments 1-7 are holistic in nature, where students will observe and analyze sport soft goods product artifacts, in order to strategize around new design solutions. These assignments will allow students to work in specific product classifications and learn about athletic performance needs. As students get deep into each product classification, they will learn about soft goods pattern drafting, construction, materials and blue prints created for product development.
- For the final project, students will learn how to make a sport soft goods product concept and prototype a 1:1 scale looks like/feels like model/prototype.
- Homework assignments are not accepted late. They must be submitted in person when class begins. Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required.
- The studio nature of this course encourages making and innovation, along with weekly critiques where students will continue to refine their critical design thinking and presentation skills. Critiques in the field of product design are a collaborative process where the attendees involved provide feedback on the design work presented and how it aligns to the theories used to approach the work. Critiques in the academic environment also help students manage through the complex design process, to insure that their final solution solves the course goals, by providing a structured discussion around design methodologies and solution paths that may not have been considered by the student. Successful critiques are where the designer (student) has a clear understanding of their next steps (things to improve upon) and the understanding of what is working well (things to continue/elaborate upon).

Student Engagement Inventory: As a 6-credit graduate course, students are expected to spend a total of 240 hours for this course.

Educational Activity	Hours Student Engaged	Explanatory Comments
Course attendance	56	Classroom scheduled for 2hrs 50min/class x 2 times/week
Assigned readings	20	Assigned Textbooks
Project	70	Designed (by hand/computer) and physical prototypes of new sport soft goods product concepts
Field work	30	Retail research and athlete meetings for insights
Lab work, experience	44	Physical making of concepts in the studio or Innovation Lab
Performance, creative activities	20	Product presentations and critiques
Total hours	240	

Documented Disabilities: Students who have a documented disability and anticipate needing

accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the UO Accessible Education Center send a letter verifying the disability.

Academic Misconduct: You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct.

Plagiarism: Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas). If there is any question about whether an act constitutes academic misconduct, it is the student's obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at <http://library.uoregon.edu/guides/plagiarism/students/index.html>

Inclusion Statement: The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website at <http://bias.uoregon.edu/index.html> or by phoning 541-346-2037.

Interviews, Research Compliance Services and Institutional Review Board Protocols: In general, student interaction with individuals that occurs for the purpose of fulfilling a single course requirement does not require Research Compliance Services (RCS) and Institutional Review Board (IRB) review and approval because it does not meet the definition of "human subjects research," as that term is defined in the federal regulations on research with human subjects. However, there are times when students do engage in "human subjects research" that requires IRB review and approval as part of fulfilling a course requirement. Whenever a student interacts with individuals (or individually identifiable data) with the intent of sharing findings beyond the classroom (e.g. in a paper, conference presentation, video, etc.) for the purpose of expanding a body of knowledge, the interaction could constitute human subjects research requiring IRB review and approval. If at any point you would like to use data for a publishable paper, a conference presentation, etc., or if you are unsure about whether or not you need IRB review and approval, you should contact the University of Oregon Research Compliance Services office.

Proposal For a New Course

College	School of Architecture and Allied Arts
Department	Product Design Program
Subject	Sports Product Design
Graduate Course Number	SPD 650
Graduate Course Title	Sports Product Materials and Manufacturing
Minimum Course Credits	3
Maximum Course Credits (per instance)	3
UO Grading Option	Graded only
Course Level	Graduate only
Instructional Type	Lecture
Faculty Available to Teach	Susan L Sokolowski, PhD Wonhee Arndt, Beth Esponnette, Kiersten Muenchinger, New TTF Sports Product Design Hire (Fall 2017) and Sports Product Design Adjunct Faculty
Previous Course Number	None
How Often Course Will Be Offered	Offered year 1 (Winter Term) in the MS Sports Product Design Program
Course Description	This course will explore the materials science, manufacturing and sustainability theories applied in sports product design
Weekly Contact Hours	3
Weekly Out-of-Class Workload	6
Gen-Ed Group Satisfaction	Does not satisfy Gen-Ed Group requirement
Gen-Ed Multicultural Satisfaction	Does not satisfy Gen-Ed Multicultural requirement
(Taught By) Other Department	This course content is solely taught by this department
Budgetary Impact	None
Department Authorization	John Arndt (Acting Product Design Program Director)
Data Entry Performed By	Susan L Sokolowski, PhD

NEW COURSE PROPOSAL

**SPORTS PRODUCT MATERIALS AND MANUFACTURING
SPD 650**

Course Proposal Submitted: November 2015

Contact: Susan L Sokolowski, PhD, Associate Professor of Product Design, Director of Product Design Portland Programs and Co-Director of the Sports Institute, School of Architecture and Allied Arts

10. **Course Number:** SPD 650

11. **Course Title:** Sports Product Materials and Manufacturing

12. **Credits:** 3

13. **Term, Place, Time and Instructors:** This is a new course. It will be offered during year 1 of the MS in Sports Product Design Program. It will be offered during Winter Term, beginning in Winter 2017 on Mondays and Wednesdays from 9am to 10:20am (at the Portland White Stag PD Studio). It will be taught by Susan L Sokolowski, PhD or Wonhee Arndt, Beth Esponnette, Kiersten Muenchinger, the new TTF Sports Product Design Hire (Fall 2017) and Sports Product Design Adjunct Faculty.

14. **Position in the Curriculum:** This course is open to 1st year students of the Sports Product Design Master's Program. This course does not satisfy a Group, Multicultural or other General Education requirement. This course is preparatory for SPD 686. The prerequisite for this course is SPD 684.

15. **Format:** Lecture

16. **Outline of Subjects and Topics Explored** (See Expanded Course Description for More Details):

I. Overview of the Course's Theoretical Framework and Seminar Discussion Topics

A. Syllabus overview

B. Standard polymer manufacturing

C. Non-destructive and destructive analytical methods

II. Textile Science and Manufacturing Discussion

A. Textile fiber characteristics

B. Fiber extrusion and harvesting

C. Molded textiles

- D. Assembly of molded textiles
- III. Specifications for Manufacturing and Assembly Discussion
 - A. Tolerance requirements for production processes
 - B. Product analysis
 - C. Product fit
- IV. Field Trip: Danner Boot Company and Portland Garment Factory
 - A. Flat pattern cutting
 - B. Product assembly
 - C. Specifications
- V. Flat Pattern Integration with Molded Parts Discussion
 - A. Composite creation
 - B. Composite assemblies
- VI. Field Trip: R and D Plastics and Portland Precision Manufacturing
 - A. New manufacturing proposal
 - B. Natural materials in mass manufacturing
- VII. Special Issues in Manufacturing for Mass Fit Discussion
 - A. Last development
 - B. Fit models
 - C. Development and use of Humanscale 1/2/3
- VII. Sustainability and Life Cycle Discussion
 - A. Sustainability assessment and reduction
 - B. Carbon and water analysis for materials and manufacturing processes
 - C. Use of Okala Practitioner Life Cycle Assessment
- IX. Cost Assessment and Curtailment Discussion
 - A. Cost of materials
 - B. Cost of manufacturing
 - C. Cost of amortization
 - D. International sourcing of materials and manufacturing
- X. Field trip: Uliko and Source Material
 - A. Thomas Register product sourcing usage
 - B. China Guide product sourcing usage
 - C. Final product presentation preparation
- XI. Final Project Presentation
 - A. New product proposal
 - B. Prototype and product portfolio

17. Course Materials:

Required Texts:

Rob Thompson, Manufacturing Processes for Design Professionals (New York: Thames and Hudson, 2007).

Rob Thompson and Martin Thompson, Manufacturing Processes for Textile and Fashion Design Professionals (New York: Thames and Hudson, 2014).

Grace Kuntz and Ruth Glock, Apparel Manufacturing: Sewn Product Analysis, 4th Edition (Upper Saddle River: Prentice Hall, 2004).

Ameersing Luximon, Handbook of Footwear Design and Manufacture (Cambridge: Woodhead Publishing, 2013).

Sara J Kandolph, Textiles (Essex: Pearson Education Limited, 2014). *This book provides content on general textile science theories and will be used as a reference. No required readings from this book.*

18. Instructor Expectations of Students: Students will be expected to attend all classes/field trips, participate in all seminar discussions, conduct readings of approximately 30-40 pages/week, accomplish 10 assignments and complete/present the final course project.

19. Assessment:

Attendance and engagement	10%
Assignments	60%
Final Project	20%
Presentation	10%
TOTAL	100%

Grading (letter grades will be determined as follows):

Grade	Points Used to Calculate GPA	Explanation	Percentage
A	4	Excellent	90% to 100%
B	3	Good	80% to 89%
C	2	Satisfactory	70% to 79%
D	1	Inferior	60% to 69%
F	0	Unsatisfactory	0% to 59%
+	+0.30	With A, B, C and D	-
-	-0.30	With A, B, C and D	-

Per University of Oregon Grading System <http://registrar.uoregon.edu/current-students/grading-system>

This course may not be taken pass/no pass. Assignments are due at the time indicated. An assignment turned in late will be reduced by one full grade. One additional grade drop (10%) will result for each additional 24-hour period the assignment is late. Non-submittal will result in the grade of "0". Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required. Incompletes are not encouraged due to cadence and prerequisites of courses in the program. However, an Incomplete may be issued when the student's work is satisfactory, but some minor essential requirements have not been finished. Students with an incomplete grade have

one calendar year to make up the work, and will need to create (with the faculty) a robust contract detailing requirements and deadlines in order to remove the incomplete grade.

Expanded Course Description (including subjects and topics to be explored): The production of new sports products is challenging, as most of the objects created are constructed from many different designed parts and materials. This course introduces and discusses the many foundational theories (materials, manufacturing, molding, etc.), factors and processes necessary to effectively bring new, innovative sports product design ideas to reality. Students will examine the complex relationship between the wide variety of strategies and methods that can be implemented to produce and manufacture a diverse possibility of sports related objects. They will learn about the interconnected issues of material properties, including: sport functionality, longevity, environmental impact, weight, strength, thermal properties, cost and aesthetics among others. Ultimately, finished sports design products must function effectively when placed into a dynamic and competitive environment. In order to be successful, all of these disparate factors must come together cohesively, work well in demanding situations, and communicate their excellence to athletes, all while being innovative and expanding knowledge in the field. The course discusses all of these various interrelated factors and exposes students to the contemporary theory and methods necessary to realize exciting new possibilities in sports product design.

Course Schedule: There will be two 1 hour and 20 minute sessions per week. Each class session will consist of a lecture/seminar discussion (typically there will be an 30 minute lecture, a 10 minute break and then another 40 minutes of lecture/discussion). On field trip days, the entire class period will be spent offsite. In addition to time spent in class, students will be expected to spend an average of 2.5 to 3 hours each week on readings and 2.5 to 3 hours each week on project work (except the Final Project). Graduate students are expected to spend 40-hours of engagement for each credit hour. For this course, students should be engaged for approximately 120 hours.

Learning Outcomes:

As a result of taking SPD 650, students will learn how to:

- Communicate and apply the appropriate use of materials and manufacturing processes to innovate new sports products.
- Competently recognize and choose materials based on their functional properties for sports products.
- Generate new knowledge in the field that critically balances the various materials and manufacturing factors in sports product design, including: aesthetics, cost and environmental impact.
- Analyze and utilize quantitative and qualitative production information to invent new product in the field.

Week 1: Overview of the Course's Theoretical Framework and Seminar Discussion Topics

Overview of the foundational design methods, processes and theories used in generating innovative design concepts in the field of sports product design. Discussion of the historical aspects of sports products, including critical comparisons of products then and now, non-destructive and destructive analytical methods, hand construction vs. mass manufacturing, innovations in manufacturing technology and new polymers.

Readings and *Reading Responses:

Thompson (2007), p36-71 in Manufacturing Processes for Design Professionals

*Reading Responses will be due at the beginning each week throughout the course. Reading responses are 3 posed questions on 1 index card that will be used as part of the seminar discussion in class. They are handed in at the beginning of class.

Assignment 1 - Then and Now:

For this assignment, students will critically analyze and focus on a state-of-the-art sports product for its materials and production methods. They will use non-destructive and destructive analytical methods to synthesize how the product was created. They will also compare the product analyzed to an historical example of the same product for similarities/differences and hand/mass manufacturing methods used. This assignment should be submitted in a 4-page, *11" x 17" layout, where pages 1 and 2 review the product analyzed and the how it was constructed. Page 3 and 4 will review the historical product. This assignment will also be shown digitally in class for discussion.

*This 11" x 17" layout format permits the assignment to be formatted into a design portfolio, while the digital presentation allows for an in-class seminar discussion and critique of the work, in order to generate innovative solutions for sports products. All assignments for this course will be formatted this way.

Week 2: Textile Science and Manufacturing Discussion

Seminar discussion of the readings and fiber science behind the creation of textiles for sports products (natural and synthetic) and how they are processed (yarn, construction, finish). Overview of the methods used to analyze fiber type post-production, for performance characterization, and the methods used to create/assemble 3D, molded textile parts.

Readings and Reading Responses:

Thompson (2007), p424-447 in Manufacturing Processes for Design Professionals

Thompson (2014), p174-195 and p410-415 in Manufacturing Processes for Textile and Fashion Design Professionals

Assignment 2 - Accounting for Every Process:

For this assignment, each student will focus on a specific sports product to critically analyze its fiber make-up and processes used in production (including molding). Analysis should be conducted for each part/section of the product. This assignment should be submitted in a 2-page, 11" x 17" layout, where page 1 reviews the fiber make-up and page 2 outlines the processes used in production. This assignment will also be shown digitally in class for discussion.

Week 3: Specifications for Manufacturing and Assembly Discussion

Seminar discussion of the readings and specification principles needed for the manufacture and assembly of sports products, including: 3D blueprints, mold making, manufacturing machinery, sizing/grading, quality control and safety requirements.

Readings and Reading Responses:

Thompson (2007), p298-307 and p332-343 in Manufacturing Processes for Design Professionals

Thompson (2014), p372-409 in Manufacturing Processes for Textile and Fashion Design Professionals

Assignment 3 - Tolerance Requirements For Production Processes:

For this assignment, each student will be given a sports product to critically analyze for its production methods, tolerances required for quality, and fit/ergonomic requirements for the user's body. This assignment should be submitted in a 4-page, 11" x 17" layout and it will also be shown digitally in class for discussion. Two pages should focus on the analysis of the product's production tolerance and the other 2 pages should focus on the ergonomic (fit) analysis.

Week 4: Field Trip - Danner Boot Company and Portland Garment Factory

For this week, students will experience two different sports product design-manufacturing facilities (footwear and apparel). The purpose of these field trips is to discuss and understand in-person how 3D sport design ideas are translated into 2D design patterns that are appropriate for mass manufacturing and how these methods could be innovated upon to change how sport products are designed.

Readings and Reading Responses:

Thompson (2007), p206-241 and p248-275 in Manufacturing Processes for Design Professionals

Thompson (2014), p478-509 in Manufacturing Processes for Textile and Fashion Design Professionals

Assignment 4 - Flat Pattern Product Development:

For this assignment, each student will focus on designing a new sports product that would require flat pattern design, cutting and assembly. The flat patterned product could be made of any textile material (as long as it can be assembled). This assignment should be submitted in a 4-page, 11" x 17" layout and it will also be shown digitally in class for discussion. Two pages should focus on flat pattern product design and the other 2 pages should focus on the specifications, drawings, tolerances and manufacturing directions for the flat patterned parts.

Week 5: Flat Pattern Integration with Molded Parts Discussion

In the field of sports product design, it is very common for products to be made of a combination of soft and hard parts – these are often called composites or composite assemblies. This week's seminar discussion will review the integration of flat patterned product parts combined with molded parts, and the design theories needed for them to be functional for the user.

Readings and Reading Responses:

Kuntz and Glock (2014), Part I: Introduction to Apparel Manufacturing and Part IV: Focus on Production in Apparel Manufacturing: Sewn Product Analysis, 4th Edition

Assignment 5 - Composite Design Development:

Design a product that focuses on both flat pattern parts and molded parts in a composite assembly. Digitally submit in a 4-page, 11" x 17" spread and be prepared to show digitally in class. Two pages should focus on design and 2 pages should focus on specifications, drawings and order of manufacture and assembly for the parts.

Week 6: Field Trip – R and D Plastics and Portland Precision Manufacturing

For this week, students will experience two different direct manufacturing facilities (injection molding and C & C machining). The purpose of these field trips is to discuss and understand in-person how materials are manipulated with very specialized machinery, in order to make product and how these methods could be innovated upon to change how sport products are designed. There will also be a discussion around the specifications needed by the designer, in order for manufacturers to work effectively and accurately.

Readings and Reading Responses:

Thompson (2007), p464-481 and p182-201 in Manufacturing Processes for Design Professionals

Kuntz and Glock (2014), Part II: Product Development in Apparel Manufacturing: Sewn Product Analysis, 4th Edition

Assignment 6 - New Sport Product Manufacturing Process Proposal:

Using work from Assignment 4 or Assignment 5, generate a new, more direct manufacturing method that would make your product faster to produce, more durable, or more sustainable. Digitally submit in a 4-page, 11" x 17" spread and be prepared to show digitally in class. The first 2 pages should focus on the existing manufacturing system and how it could be modified to make your product. The second 2 pages should focus on the benefits of your new product due to the use of direct manufacturing and how it will evolve the sports product industry.

Week 7: Special Issues in Manufacturing for Mass Fit Discussion

Seminar discussion of the readings and the special needs required in sports product manufacturing, in order to accommodate user fit. Students will look critically at anthropometric/ergonomic data (like Humanscale 1/2/3), sizing systems, fitting and last/mannequin development, and discuss systematic issues and opportunities for evolution and innovation in the field.

Readings and Reading Responses:

Luximon (2013), Chapters 9-12 in Handbook of Footwear Design and Manufacture

Assignment 7 - New Manufacturing Last or Fit Mannequin:

Focusing on the new product designed from Assignment 4 or Assignment 5, students will develop criteria for new last or fit mannequin. Digitally submit in a 2-page, 11" x 17" spread and be prepared to show digitally in class. The layout should show the development needs of the new last or fit mannequin and explain its benefits to the product and user performance.

Week 8: Sustainability and Product Life Cycle

Seminar discussion of the readings and sports product design sustainability, life cycle guidelines and available industry tools. Students will critically evaluate materials and product manufacturing methods that are known to innovated around product sustainability (including

carbon/water blueprint). The Okala Practitioner Life Cycle Assessment will also be used as a tool for generating new product opportunities in the field of sport.

Readings and Reading Responses:

Luximon (2013), Chapter 14 in Handbook of Footwear Design and Manufacture

Okala Life Cycle Assessment Handout

Assignment 8 - Sustainability Assessment and Reduction:

Focusing on the work completed from Assignment 4 or Assignment 5, students will assess the current environmental impact of the product using the Okala Life Cycle Assessment method. Then reduce the impact of the product by 10%. Digitally submit in a 2-page, 11" x 17" spread and be prepared to show digitally in class. The layout should show the Okala assessment, weight assessments, graphical representation of impact and reduction, and explanation and reasoning of reduction.

Week 9: Cost Assessment and Curtailment Discussion

Seminar discussion of the readings and on how sport products are cost-out (materials/tooling, manufacturing, and amortization) and how sourcing and the identification of the manufacturer are critical to product success. In addition, the class will discuss final project expectations, which will be a portfolio presentation of the work developed during class, including: the description and design drawings of the new product, along with a critical analysis of fit, sustainability and costing.

Reading and Reading Responses:

Costing Handouts (Soft Goods, Footwear and Hard Goods)

Assignment 9 - Cost Assessment and Curtailment:

Focusing on the work completed from Assignment 4 or Assignment 5, students will assess the cost of the product using the costing rubrics. Then reduce the cost of the product by 10%. Digitally submit in a 2-page, 11" x 17" spread and be prepared to show digitally in class. The layout should show the overall cost assessment, highlights of costs of materials, manufacturing, amortization and explanation of reduction.

Week 10: Field Trip - Uliko and Source Material

For this week, students will visit two different sport product material sourcing agencies and discuss the methodologies used by these agencies to successfully forecast, select, purchase and deliver materials to a manufacturer for product production and how these methods could be innovated upon to change how sport products are designed. Students will also discuss other material sources like the Thomas Register and China Guide and understand how to use them effectively for sport product design.

Assignment 10 - Final Project Presentation:

Focusing on the work completed from the last 5 assignments – students will put together the work into a comprehensive product portfolio. Submit in a 10-12 page, 11" x 17" spread and be prepared to show the portfolio digitally in class. Incorporate appropriate development and assessments.

Finals Week: Final Project Presentation

Multi-media project presentation and critique of each student's project portfolio. The presentation will be due at the time scheduled for the final exam (there will be no final exam in the course). Project presentations should include a sports product prototype and project portfolio, including: the description and design drawings of the new product, critical analysis of product fit, sustainability and costing. The goal of this project is to use critical thinking to innovate new materials and manufacturing processes, in order to revolutionize the way sports products are designed.

Structure, Assignments and Student Engagement:

- Students are required to engage in class with their peers and instructor. Seminar discussions, analyses of products and assignment critiques will occur. Various methods of engagement will be available, including questions submitted prior to class, in-class questions, and being called on for one's thoughts.
- Assignments are not accepted late. They must be submitted both physically (if requested) and electronically *before* class time. Students will not be able to submit assignments after the deadlines.
- Each student develops a production proposal for a self-designed product. The proposal will include materials specifications, manufacturing requirements, cost analysis and sustainability analysis. The proposal is presented visually with text and is verbally presented with a digital presentation.

Student Engagement Inventory: As a 3-credit graduate course, students are expected to spend a total of 120 hours for this course.

Educational Activity	Hours Student Engaged	Explanatory Comments
Course attendance	30	Classroom scheduled for 1hrs 20min/class x 2 times/week
Assigned readings	26	Assigned Textbooks
Writing assignments	28	Analyses of existing product manufacture; analyses of manufacturing facility capabilities for new production
Project	20	Prototype of new product based on proposed materials and manufacture
Field work, experience	8	Field trips to low and high volume manufacturing facilities
Performance, creative activities	8	Product presentations and critiques
Total Hours	120	

Documented Disabilities: Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the UO Accessible Education Center send a letter verifying the disability.

Academic Misconduct: You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic

misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct.

Plagiarism: Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas). If there is any question about whether an act constitutes academic misconduct, it is the student's obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at <http://library.uoregon.edu/guides/plagiarism/students/index.html>

Inclusion Statement: The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website at <http://bias.uoregon.edu/index.html> or by phoning 541-346-2037.

Interviews, Research Compliance Services and Institutional Review Board Protocols: In general, student interaction with individuals that occurs for the purpose of fulfilling a single course requirement does not require Research Compliance Services (RCS) and Institutional Review Board (IRB) review and approval because it does not meet the definition of "human subjects research," as that term is defined in the federal regulations on research with human subjects. However, there are times when students do engage in "human subjects research" that requires IRB review and approval as part of fulfilling a course requirement. Whenever a student interacts with individuals (or individually identifiable data) with the intent of sharing findings beyond the classroom (e.g. in a paper, conference presentation, video, etc.) for the purpose of expanding a body of knowledge, the interaction could constitute human subjects research requiring IRB review and approval. If at any point you would like to use data for a publishable paper, a conference presentation, etc., or if you are unsure about whether or not you need IRB review and approval, you should contact the University of Oregon Research Compliance Services office.

Proposal For a New Course

College	School of Architecture and Allied Arts
Department	Product Design Program
Subject	Sports Product Design
Graduate Course Number	SPD 686
Graduate Course Title	Sports Product Design Studio II
Minimum Course Credits	6
Maximum Course Credits (per instance)	6
UO Grading Option	Graded only
Course Level	Graduate only
Instructional Type	Studio
Faculty Available to Teach	New TTF Sports Product Design Hire (Fall 2017), Susan L Sokolowski, PhD, Erdem Selek, Trygve Faste, Hale Selek and Sports Product Design Adjunct Faculty
Previous Course Number	None
How Often Course Will Be Offered	Offered year 1 (Spring Term) in the MS Sports Product Design Program
Course Description	This course will explore the theories and creative problem solving methods used to design solutions for sports footwear. How is an athlete's ability to perform successfully linked to the objects they wear on the foot/ankle? How can design help shape the future of this product interface? Mechanical theories of cushioning, stability, support, traction and slipping/sliding to will be considered, to generate innovative solutions in the field.
Weekly Contact Hours	6
Weekly Out-of-Class Workload	18
Gen-Ed Group Satisfaction	Does not satisfy Gen-Ed Group requirement
Gen-Ed Multicultural Satisfaction	Does not satisfy Gen-Ed Multicultural requirement
(Taught By) Other Department	This course content is solely taught by this department
Budgetary Impact	None
Department Authorization	John Arndt (Acting Product Design Program Director)
Data Entry Performed By	Susan L Sokolowski, PhD

NEW COURSE PROPOSAL

**SPORTS PRODUCT DESIGN STUDIO II
SPD 686**

Course Proposal Submitted: November 2015

Contact: Susan L Sokolowski, PhD, Associate Professor of Product Design, Director of Product Design Portland Programs and Co-Director of the Sports Institute, School of Architecture and Allied Arts

20. **Course Number:** SPD 686

21. **Course Title:** Sports Product Design Studio II

22. **Credits:** 6

23. **Term, Place, Time and Instructor:** This is a new course. It will be offered during year 1 of the MS in Sports Product Design Program. It will be offered during Spring Term, beginning in Spring 2017 on Tuesdays and Thursdays from 9am to 11:50am (at the Portland White Stag PD Studio). It will be taught by the new TTF Sports Product Design Hire (Fall 2017) or Susan L Sokolowski, PhD, Erdem Selek, Trygve Faste, Hale Selek and Sports Product Design Adjunct Faculty.

24. **Position in the Curriculum:** This course is open to 1st year students of the Sports Product Design Master's Program. This course does not satisfy a Group, Multicultural or other General Education requirement. This course is preparatory for SPD 687. The prerequisites for this course are SPD 650, 684 and 685.

25. **Format:** Studio/Lab.

26. **Outline of Subjects and Topics Explored** (See Expanded Course Description for More Details):

- I. Overview of the Course's Theoretical Framework and Seminar Discussion Topics
 - A. Syllabus overview
 - B. IRB review process
 - C. Overview of the sport product design categories and classifications for products designed below the ankle
 - D. General athlete ankle/foot anatomy and anthropometrics
 - E. Mechanical and physical user needs overview of footwear, including: cushioning, stability, support, traction and slipping/sliding
 - F. Materials and product development process overview

II. Sport Upper Design Theory

- A. Anatomy of the sports upper
- B. Last anatomy and selection for designing sport uppers
- C. Methodology of designing a sports upper
- D. Last taping and design interpretation onto the 3D taped last
- E. 3D last tape conversion to 2D upper pattern drafting
- F. Upper materials considerations and selection
- G. Cutting and construction of the upper

III. Sport Cushioning Mechanics and Midsole, Sock Liner and Outsole Design Theory

- A. Foot/ankle anatomy and mechanics research relevant to designing midsoles, sock liners and outsole in sports products
- B. Dissection of the midsole: design features and mechanical specifications
- C. Current sports market midsole technologies and construction
- D. Midsole material characteristics and innovation opportunity spectrum
- E. Dissection of the sock liner: design features and mechanical specifications
- F. Current sports market sock liner technologies and construction
- G. Sock liner material characteristics and innovation opportunity spectrum
- H. Dissection of the outsole: design features and mechanical specifications
- I. Current sports market outsole technologies and construction
- J. Outsole material characteristics and innovation opportunity spectrum

IV. Sport Stability and Support Mechanics and Design Theory

- A. Foot/ankle anatomy relevant to designing stability and support in sports products
- B. Mechanics of foot/ankle stability and instability
- C. Dissection of the stability and support technologies found in sport products: design features and mechanical specifications
- D. Current sports market stability and support technologies and construction
- E. Support and stability material characteristics and innovation opportunity spectrum

V. Sport Traction, Spinning and Slipping Mechanics and Design Theory

- A. Foot/ankle anatomy relevant to designing traction, spinning and slipping in sports products
- B. Mechanics of traction, spinning and slipping as it relates to sports product design
- C. Dissection of the traction, spinning and slipping technologies found in sport products: design features and mechanical specifications
- D. Current sports market traction, spinning and slipping technologies and construction
- E. Traction, spinning and slipping material characteristics and innovation opportunity spectrum

VI. Sport Footwear Product Design Opportunity Identification

- I. Identification of a new sport product market opportunity and classification
- J. Historical artifact analysis to identify design priorities for new sports footwear
- K. Mechanical and physical athlete needs to identify new sports footwear, including: cushioning, stability, support, traction and slipping/sliding
- L. Materials and product development process opportunities identification for new sports footwear

- M. Athlete insights through interviews related to the new sports product design opportunity
- N. Development of a new sports footwear brief
- O. Ideation of the new sports footwear product design
- P. Prototyping of the new sports footwear opportunity, including technical sketch, patterns, material selection, specifications and construction

VII. Sport Footwear Product Design Opportunity Presentation

- A. New sports footwear opportunity and product classification
- B. Supporting research in historical artifact analysis, anatomical/anthropometric research, sport performance needs and athlete insights
- C. Design brief
- D. Design process documentation
- E. 1:1 scale model (including upper, midsole, outsole and sock liner)
- F. Multi-media presentation that supports the new sports footwear opportunity

27. Course Materials:

Required Texts:

Ravindra S. Goonetilleke, *The Science of Footwear: Human Factors and Ergonomics* (Boca Raton: CRC Press, 2013).

Renderdemo, *How to Draw Athletic Shows* (Haverhill: Renderdemo, 2014). *This book will be used as a supplement, no required readings.*

Supplies:

Sewing machine/bobbins and needles	C & C foam for prototyping
18" x 2" see through ruler	12" x 2" see through ruler
Latex rubber gloves	Seam ripper and Exacto knife
Paper & fabric scissors	Glue gun and glue
5 yards of muslin	Tape measure
Tailor's wax (the kind that disappears when ironed)	Hand sewing needles
1/4" black twill tape or 1/8" black Chartpak tape	Size 17 satin pins (pins with colored plastic ends will be unacceptable b/c they melt on equipment and materials)
Pencil sharpener	Pencils (not mechanical)
Black and white thread	Toolbox for all supplies
Black or dark colored grease pencils or crayons	Pattern paper
Index cards	Reclaimed sport soft goods artifacts (per the project assignments)

* Other supplies may be needed, per individual project needs.

28. Instructor Expectations of Students: Students will be expected to attend all classes, participate in all discussions/critiques, read approximately 30 pages/week, complete and present at all 6 studio critiques and present the final Studio Assignment (with a 1:1 scale model). Students will have to conduct market research and meet with athletes for insights.

This class will also require pattern drafting, writing, sketching/ideation, 3D modeling, technical drawing and prototyping (sewing, cutting, model making).

29. Assessment:

Reading Responses	5%
Studio Assignment 1	12%
Studio Assignment 2	12%
Studio Assignment 3	12%
Studio Assignment 4	12%
Studio Assignment 5	10%
Final Project	30%
Attendance and Participation	5%
TOTAL	100%

Grading (letter grades will be determined as follows):

Grade	Points Used to Calculate GPA	Explanation	Percentage
A	4	Excellent	90% to 100%
B	3	Good	80% to 89%
C	2	Satisfactory	70% to 79%
D	1	Inferior	60% to 69%
F	0	Unsatisfactory	0% to 59%
+	+0.30	With A, B, C and D	-
-	-0.30	With A, B, C and D	-

Per University of Oregon Grading System <http://registrar.uoregon.edu/current-students/grading-system>

This course may not be taken pass/no pass. Assignments are due at the time indicated. An assignment turned in late will be reduced by one full grade. One additional grade drop (10%) will result for each additional 24-hour period the assignment is late. Non-submittal will result in the grade of "0". Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required. Incompletes are not encouraged due to cadence and prerequisites of courses in the program. However, an Incomplete may be issued when the student's work is satisfactory, but some minor essential requirements have not been finished. Students with an incomplete grade have one calendar year to make up the work, and will need to create (with the faculty) a robust contract detailing requirements and deadlines in order to remove the incomplete grade.

Expanded Course Description (including subjects and topics to be explored): This studio course is the second in a series of three courses (SPD 685, SPD 686 and SPD 687), in which students will use theories in biomechanics/mechanics, ergonomics/fit, design, research, business, sustainability, materials science and creative problem solving methods to explore and push the boundaries of footwear design solutions in the field of sports product design. Sports footwear is defined as soft goods worn on the feet during sport for protection and enhancement during performance. They are typically made of textiles, rubber and plastic and can include slippers, braces, wraps, cleats and spikes. This course will address the relevant topics surrounding the link between an athlete's ability to perform successfully and the objects they wear on their feet, as well as how design can help shape the future of this product interface. In this course students will learn about upper, midsole, sock liner and outsole design,

and investigate the use and failure patterns from reclaimed products in order to identify new design opportunities. They will also learn about sports-specific mechanical theories such as cushioning, stability, support, traction, spinning and slipping in order to innovate new product technologies. Students will also learn about sport footwear pattern drafting, construction and reverse engineering, in order accurately communicate their designs to others. They will explore materials science theories to understand the technical performance requirements and sustainability. The studio nature of this course encourages making and innovation, along with weekly critiques where students will continue to refine their critical design thinking and presentation skills.

Course Schedule: There will be two 2 hour and 50 minute sessions per week. Each class session will consist of a lecture/seminar discussion including reading responses and studio critiques by students (typically there will be an 40 minute lecture, a 10 minute break and then another 2 hours for discussion and student critiques). Weekly written responses will be due at the beginning of class (in the first of two class sessions for the week). In addition to time spent in class, students will be expected to spend an average of 2.5 to 3 hours each week on readings and 18 hours on assignments. Graduate students are expected to spend 40 hours of engagement for each credit hour. For this course, students should engage for approximately 240 hours.

Learning Outcomes:

As a result of taking SPD 686, students will learn how to:

- Explore the process of relentless self-improvement as a designer by researching historical and current trends/technologies, to develop new design solutions that enhance athletic performance and health, in order to revolutionize and innovate new knowledge in the field of sports product design.
- Define and understand the design theories used to solve problems for the key sports footwear product design classifications.
- Conduct research relevant to sports footwear design, including: foot /ankle anatomy, anthropometry, biomechanics and athlete insights to generate new innovative design opportunities in the field.
- Dissect and critically analyze sports footwear design artifacts to understand sports-specific functional problems such as cushioning, stability, flexibility, fit, support, traction and slippage.
- Ideate, invent and prototype new sports footwear product design ideas, through materials selection, pattern drafting, technical flats/specifications and construction.
- Build multi-media communication tools to identify and share with peers and the instructor new sports footwear design innovation opportunities.

Week 1: Overview of the Course's Theoretical Framework and Seminar Discussion Topics

This course will commence with an overview of the syllabus and the IRB review process, followed by a seminar discussion of sport footwear, including general categories and classifications, and the theories (biomechanics/mechanics, ergonomics/fit, design, research, business and materials science) used to solve design problems for athletes. Discussion of the athlete's foot/ankle anatomy and anthropometrics (including gender differences), mechanical and physical needs, including: cushioning, stability, support, traction and slipping/sliding. Materials and product development processes will also be discussed.

Readings and *Reading Responses:

Goonetilleke (2013), Chapter One: Foot Structure and Anatomy and Chapter Two: Foot Morphology

*Reading Responses will be due at the beginning each week. Reading responses are 3 posed questions on 1 index card that will be used as part of the seminar discussion in class. They are handed in at the beginning of class.

Studio Assignment 1 - Sport Upper Artifact Dissection:

For this assignment, students will focus and research sport uppers to back engineer how they were created and determine how they could be designed for improved fit, mobility, manufacturing and sustainability. The research and product opportunities identified for this project will be presented in a *3-page 11" x17" visual layout, that will also be shown digitally in class in a critique format. Discussion of the sport footwear upper analysis should include: features, benefits, materials, pattern parts and construction outlined on page 1. For page 2, fit, mobility, manufacturing and sustainability research should be outlined and summarized to identify new opportunities. For page 3, students should show through sketch form how the background research could revolutionize the field through a new upper opportunity. The upper opportunity page should also describe the new features, benefits, materials, parts and construction.

*This 3-page, 11" x 17" layout format permits the assignment to be formatted into a design portfolio, while the digital presentation allows for an in-class seminar discussion and critique of the work, in order to generate innovative solutions for sports products. All assignments for this course will be formatted this way.

Studio Assignment 1 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 2. Use the Renderdemo book to help draft new sport upper design opportunities.

Weeks 2 and 3: Sport Upper Design Theory

Seminar discussion of the assigned readings, including the theories used to design sport uppers. Students will research the key market silhouettes, historical form evolution, anthropometric/fit needs, mechanical and athlete requirements – as it pertains to the sports upper. Students will also learn about the upper's anatomy, last selection, 2D upper design, last taping and how patterns are made and validated. Consideration for upper materials and development will be discussed as it relates to identifying new design opportunities.

Readings and Reading Responses (due beginning of week 3):

Goonetilleke (2013), Chapter Three: Foot Characteristics and Related Empirical Models and Chapter Five: 3D Capture of Human Feet and Shoe Lasts

Readings and Reading Responses (due beginning of week 4):

Goonetilleke (2013), Chapter Nine: Shoe Last Design and Development and Chapter Twelve: Footbed Design

Studio Assignment 2 - Sport-Cushioning Mechanics and Midsole, Sock Liner and Outsole Artifacts Dissection:

For this assignment, students will focus and research sport-cushioning mechanics and midsole, sock liner and outsole artifacts to back engineer how they were created and determine how they could be designed for improved response, flexibility and comfort. The research and product opportunities identified for this project will be presented in a 3-page 11" x17" visual layout, that will also be shown digitally in class in a critique format. Discussion of the sport footwear midsole, sock liner and outsole should include: features, benefits, materials, parts and construction outlined on page 1. For page 2, cushioning responsiveness, flexibility and comfort research should be outlined and summarized to identify new opportunities. For page 3, students should show through sketch form how the background research could revolutionize the field through a new midsole, sock liner and outsole opportunity. The midsole, sock liner and outsole opportunity page should also describe the new features, benefits, materials, parts and construction.

Studio Assignment 2 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 5. Use the Renderdemo book to help draft new sport-cushioning mechanics and midsole, sock liner and outsole design opportunities.

Weeks 4 and 5: Sport-Cushioning Mechanics and Midsole, Sock Liner and Outsole Design Theory

Seminar discussion of the assigned readings, including the theories used to design sport-cushioning mechanics and midsoles, sock liners and outsoles. Students will research the foot/ankle anatomy, key market silhouettes, historical form evolution, anthropometric/fit needs, mechanical and athlete requirements – as it pertains to sport midsoles, sock liners and outsoles. Students will also learn the methods of constructing 3D sport midsoles, sock liners and outsoles and how they are validated. Consideration for materials and development will be discussed as it relates to identifying new design opportunities.

Readings and Reading Responses (due beginning of week 5):

Goonetilleke (2013), Chapter Thirteen: Design of Insoles

Readings and Reading Responses (due beginning of week 6):

Goonetilleke (2013), Chapter Twenty: Measuring Motion Control Properties of Footwear

Studio Assignment 3 - Sport Stability and Support Mechanical Artifacts Dissection:

For this assignment, students will focus and research sport footwear stability and support mechanical artifacts to back engineer how they were created and determine how they could be designed for improved sport-specific performance. The research and product opportunities identified for this project will be presented in a 3-page 11" x17" visual layout, that will also be shown digitally in class in a critique format. Discussion of the sport stability and support technology artifacts should include: features, benefits, materials, parts and construction outlined on page 1. For page 2, materials, architectural support structures and biomechanical research should be outlined and summarized to identify new opportunities. For page 3, students should show through sketch form how the background research could revolutionize the field through new sport footwear stability and support technology opportunities. The sport stability and support opportunities page should also describe the new features, benefits, materials, parts and construction.

Studio Assignment 3 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 6. Use the Renderdemo book to help draft new sport stability and support mechanical design opportunities.

Week 6: Sport Stability and Support Mechanics and Design Theory

Seminar discussion of the assigned readings, including the theories used to design sport stability and support mechanical solutions for athletes. Students will research the foot/ankle anatomy, key market silhouettes, historical form evolution, anthropometric/fit needs, mechanical and athlete requirements – as it pertains to sport stability and support product design ideas. Students will also learn the methods of constructing sport stability and support technologies and how they are validated. Consideration for materials and development will be discussed as it relates to identifying new design opportunities.

Reading and Reading Responses:

Goonetilleke (2013), Chapter Twenty-Six: Soccer Shoe Design and Its Influence on Player's Performance

Studio Assignment 4 - Sport Traction, Spinning and Slipping Mechanics Artifact Dissection:

For this assignment, students will focus and research sport traction, spinning and slipping artifacts to back engineer how they were created and determine how they could be designed for improved speed, agility and fluidity. The research and product opportunities identified for this project will be presented in a 3-page 11" x17" visual layout, that will also be shown digitally in class in a critique format. Discussion of the artifacts that depict sport traction, spinning or slipping should include: features, benefits, materials, parts and construction outlined on page 1. For page 2, materials, functional patterns and biomechanical research should be outlined and summarized to identify new opportunities. For page 3, students should show through sketch form how the background research could revolutionize the field through new sport footwear sport traction, spinning or slipping technology opportunities. The sport traction, spinning or slipping technology opportunities page should also describe the new features, benefits, materials, parts and construction.

Studio Assignment 4 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 7.

Week 7: Sport Traction, Spinning and Slipping Mechanics and Design Theory

Seminar discussion of the assigned readings, including the theories used to design sport traction, spinning and slipping mechanical solutions for footwear athletes. Students will research the foot/ankle anatomy, key market silhouettes, historical form evolution, anthropometric/fit needs, mechanical and athlete requirements – as it pertains to sport traction, spinning and slipping product design ideas. Students will also learn the methods of constructing sport traction, spinning and slipping technologies and how they are validated. Consideration for materials and development will be discussed as it relates to identifying new design opportunities.

Studio Assignment 5 - Sport Footwear Product Design Opportunity:

From the work done throughout the course, students will identify a unique sports footwear product design opportunity and identify how the idea contributes new knowledge for the sports product design industry. Students will research, ideate, draft and construct a 1:1 scale product design model that encompasses the theories learned during the course. This product model

will be presented as the final for the class (along with a multi-media presentation).

For the beginning of Week 8 students will come prepared to present their sports footwear product opportunity in terms of:

- Identifying a new sports footwear product market opportunity and product classification
- Historical artifact analysis that identify design priorities for the new product
- Anatomical and anthropometric research that determines the new product's ergonomic shape and sizing needs for the athlete
- Mechanical performance and athlete insights related to the new sports design opportunity
- New sports footwear product brief
- Preliminary materials palette for the product model

Weeks 8, 9 and 10 Sport Footwear Product Design Opportunity Identification

Students will continue to develop their sports footwear design opportunity. For the final project, students will establish a design direction, then make patterns and their 1:1 scale product model to present at the final (along with a multi-media presentation).

Multi-media presentations should include:

- New sports products market opportunity and product classification
- Supporting research in historical artifact analysis, anatomical/anthropometric research, sport performance needs and athlete insights
- Product design brief
- Design process documentation
- 1:1 scale model

For the beginning of Week 9 students should come prepared with their preliminary multi-media presentation to share with the class. The preliminary presentation should include:

- New sports product design market opportunity and product classification
- Supporting research in historical artifact analysis, anatomical/anthropometric research, sport performance needs and athlete insights
- Product design brief
- Design process documentation @ 50% completion
- 1:1 scale model @ 50% completion

Finals Week: Sports Footwear Opportunity Presentation

Final multi-media presentation and critique of each student's new sport footwear product opportunity and how the idea contributes new knowledge for the sports product design industry. The project presentation will be due at the time scheduled for the final exam (there will be no final exam in the course).

Structure, Assignments and Student Engagement:

- Students are required to engage in class with their peers and instructor. Seminar discussions, analyses of products and assignment critiques will occur. Various methods of engagement will be available, including questions submitted prior to class, in-class questions, and being called on for one's thoughts.
- For weeks 1-6, students will be assigned readings where they will be required to produce a series of "reading responses" in reaction to the content read. Reading responses for this course are 3 questions that the student may have as they read the

required assignment, or questions that may probe the content. The questions are turned into the instructor at the beginning of each class on one index card. The instructor will review these responses in class (on the same day) and use them as a platform for scholarly discussion/seminar and further explanation of the concepts presented.

- Assignments 1- 4 are holistic in nature, where students will observe and analyze sports product artifacts, in order to strategize around new design solutions. These assignments will allow students to work in specific scientific and mechanical problem solving areas so they can learn about athlete needs and the complexity sports footwear design. As students get deeper into each performance area, they will learn more about pattern drafting, 3D modeling, construction, materials and technical packages that are created for product development.
- For the final project, students will learn how to make a 1:1 looks like/feels like model of their new sports footwear design.
- Homework assignments are not accepted late. They must be submitted in person when class begins. Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required.
- The studio nature of this course encourages making and innovation, along with weekly critiques where students will continue to refine their critical design thinking and multi-media presentation skills. Critiques in the field of product design are a collaborative process where the attendees involved provide feedback on the design work presented and how it aligns to the theories used to approach the work. Critiques in the academic environment also help students manage through the complex design process, to insure that their final solution solves the course goals, by providing a structured discussion around design methodologies and solution paths that may not have been considered by the student. Successful critiques are where the designer (student) has a clear understanding of their next steps (things to improve upon) and the understanding of what is working well (things to continue/elaborate upon).

Student Engagement Inventory: As a 6-credit graduate course, students are expected to spend a total of 240 hours for this course.

Educational Activity	Hours Student Engaged	Explanatory Comments
Course attendance	56	Classroom scheduled for 2hrs 50min/class x 2 times/week
Assigned readings	16	Assigned Textbooks
Project	68	Designed (by hand/computer) and physical models of new sport soft goods product concepts
Field work	30	Retail research and athlete meetings for insights
Lab work, experience	50	Physical making of concepts in the studio or Innovation Lab
Performance, creative activities	20	Product presentations and critiques
Total hours	240	

Documented Disabilities: Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the UO Accessible Education Center send a letter verifying the disability.

Academic Misconduct: You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct.

Plagiarism: Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas). If there is any question about whether an act constitutes academic misconduct, it is the student's obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at <http://library.uoregon.edu/guides/plagiarism/students/index.html>

Inclusion Statement: The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website at <http://bias.uoregon.edu/index.html> or by phoning 541-346-2037.

Interviews, Research Compliance Services and Institutional Review Board Protocols: In general, student interaction with individuals that occurs for the purpose of fulfilling a single course requirement does not require Research Compliance Services (RCS) and Institutional Review Board (IRB) review and approval because it does not meet the definition of "human subjects research," as that term is defined in the federal regulations on research with human subjects. However, there are times when students do engage in "human subjects research" that requires IRB review and approval as part of fulfilling a course requirement. Whenever a student interacts with individuals (or individually identifiable data) with the intent of sharing findings beyond the classroom (e.g. in a paper, conference presentation, video, etc.) for the purpose of expanding a body of knowledge, the interaction could constitute human subjects research requiring IRB review and approval. If at any point you would like to use data for a publishable paper, a conference presentation, etc., or if you are unsure about whether or not you need IRB review and approval, you should contact the University of Oregon Research Compliance Services office.

Proposal For a New Course

College	School of Architecture and Allied Arts
Department	Product Design Program
Subject	Sports Product Design
Graduate Course Number	SPD 687
Graduate Course Title	Product Design Studio III
Minimum Course Credits	6
Maximum Course Credits (per instance)	6
UO Grading Option	Graded only
Course Level	Graduate only
Instructional Type	Studio
Faculty Available to Teach	New Sports Product Design TTF Hire (Fall 2017), Susan L Sokolowski, PhD, Trygve Faste, Hale Selek, John Arndt and Sports Product Design Adjunct Faculty
Previous Course Number	None
How Often Course Will Be Offered	Offered year 2 (Fall Term) in the MS Sports Product Design program
Course Description	<p>This course will explore the theories and creative problem solving methods used to design solutions for sport hard goods. How is an athlete's ability to perform successfully linked to the objects that they manipulate and utilize? How can design help shape the future of this interaction? Performance theories related to dexterity, cranial protection, transportation and safety will be considered, to generate innovative solutions in the field. Creative problem solving and use of the "Medici Effect" phenomenon will be used as methods to generate innovative solutions around this topic</p>
Weekly Contact Hours	6
Weekly Out-of-Class Workload	18
Gen-Ed Group Satisfaction	Does not satisfy Gen-Ed Group requirement
Gen-Ed Multicultural Satisfaction	Does not satisfy Gen-Ed Multicultural requirement
(Taught By) Other Department	This course content is solely taught by this department
Budgetary Impact	None
Department Authorization	John Arndt (Acting Product Design Program Director)
Data Entry Performed By	Susan L Sokolowski, PhD

NEW COURSE PROPOSAL

**PRODUCT DESIGN STUDIO III
SPD 687**

Course Proposal Submitted: November 2015

Contact: Susan L Sokolowski, PhD, Associate Professor of Product Design, Director of Product Design Portland Programs and Co-Director of the Sports Institute, School of Architecture and Allied Arts

30. **Course Number:** SPD 687

31. **Course Title:** Product Design Studio III

32. **Credits:** 6

33. **Term, Place, Time and Instructor:** This is a new course. It will be offered during year 2 of the MS in Sports Product Design Program. It will be offered during Fall Term, beginning in Fall 2017 on Tuesdays and Thursdays from 9am to 11:50am (at the Portland White Stag PD Studio). It will be taught by the new Sports Product Design TTF Hire (Fall 2017) or Susan L Sokolowski, PhD, Trygve Faste, Hale Selek, John Arndt and Sports Product Design Adjunct Faculty.

34. **Position in the Curriculum:** This course is open to 2nd year students of the Sports Product Design Master's Program. This course does not satisfy a Group, Multicultural or other General Education requirement. This course is preparatory for SPD 688. The prerequisites for this course are SPD 650, 684, 685 and 686.

35. **Format:** Studio/Lab.

36. **Outline of Subjects and Topics Explored** (See Expanded Course Description for More Details):

- I. Overview of the Course's Theoretical Framework and Seminar Discussion Topics
 - A. Syllabus overview
 - B. IRB process review
 - C. Overview of sport hard goods design categories and classifications
 - D. Anthropometrics and fit overview of the athlete's body with sport hard goods
 - E. Construction and mechanical needs overview of sport hard goods design, including: strike-ability, inflate-ability, impact attenuation, dexterity, cranial protection and portability/transportability.

II. Strike-able Sport Hard Goods Design Theory

- A. *Market categorization and classification research
- B. Historical research and artifact analysis
- C. Anatomical, anthropometric and kinetics research
- D. Physiological and athlete perception research
- E. Design research methodology, including: ideation, prototyping and validation
- F. Materials and product development methodology, including: technical sketching, pattern drafting, 3D modeling, materials, specifications and construction
- G. "Intersection of animals"

*All subsequent subjects will follow these design research topics (except the intersection, which will be specified under each subject area)

III. Inflate-able Sport Hard Goods Design Theory

- A. "Intersection of toys"

IV. Impact Attenuating Sport Hard Goods Design Theory

- A. "Intersection of nutrition"

V. Dexterous Sport Hard Goods Design Theory

- A. "Intersection of medicine"

VI. Cranial Protective Sport Hard Goods Design Theory

- A. "Intersection of botany"

VII. Portable and Transportable Sport Hard Goods Design Theory

- A. "Intersection of architecture"

VIII. Sport Hard Goods Product Design Strategic Opportunity Development

- Q. Identification of a new sport hard goods market opportunity and product classification
- R. Historical artifact analysis to identify design priorities for a new sport hard goods product
- S. Anatomical and anthropometric research to determine the new sport hard goods ergonomic shape and sizing needs for the athlete
- T. Physiological and physical athlete research as it relates to the new sport hard goods design opportunity
- U. Athlete insights through interviews related to the new sport hard goods design opportunity
- V. Development of a new sport hard goods product brief
- W. Ideation of new sports sport hard goods design opportunity
- X. Prototyping of new sport hard goods product opportunity, including technical sketch, patterns, 3D parts, material selection, specifications and construction

IX. Sport Hard Goods Product Design Opportunity Presentation

- G. New sport hard goods design market opportunity and product classification
- H. Supporting research in historical artifact analysis, anatomical/anthropometric research, sport performance needs and athlete insights
- I. Design brief
- J. Design process documentation

- K. 1:1 scale prototype
- L. Multi-media presentation that supports the new sports hard goods design opportunity theory

37. Course Materials:

Required Texts:

Susan M Watkins and Lucy Dunne, *Functional Clothing Design: From Sportswear to Spacesuits* (London: Bloomsbury Publishing, 2015). *Students should already have this book from SPD 685 Studio I (we'll use different chapters from the book for this course).*

Frans Johansson, *The Medici Effect: What Elephants and Epidemics Can Teach Us About Innovation* (Boston: Harvard Business School Press, 2006).

Emily Blumenthal, *Handbag Designer 101: Everything You Need to Know About Designing, Making and Marketing Handbags* (Minneapolis: Voyageur Press, 2011).

Supplies:

Sewing machine/bobbins and needles	C & C foam for prototyping
18" x 2" see through ruler	12" x 2" see through ruler
Latex rubber gloves	Seam ripper and Exacto knife
Paper and fabric scissors	Glue gun and glue
5 yards of muslin	Tape measure
Tailor's wax (the kind that disappears when ironed)	Hand sewing needles
1/4" black twill tape or 1/8" black Chartpak tape	Size 17 satin pins (pins with colored plastic ends will be unacceptable b/c they melt on equipment and materials)
Pencil sharpener	Pencils (not mechanical)
Black and white thread	Toolbox for all supplies
Black or dark colored grease pencil or crayons	Pattern paper
Index cards	Reclaimed sport hard goods artifacts (per the project assignments)

* Other supplies may be needed, per individual project needs.

38. Instructor Expectations of Students: Students will be expected to attend all classes, participate in all seminar discussions/critiques, do readings of approximately 30 pages/week, complete and present at all 6 studio assignment critiques and present the final studio project (with a 1:1 scale prototype). Students will have to conduct market research and meet with athletes for insights. This class will also require pattern drafting, writing, sketching/ideation, 3D modeling, technical drawing and prototyping (sewing, cutting, model making).

10. Assessment:

Reading Responses	5%
Studio Assignment 1	10%
Studio Assignment 2	10%
Studio Assignment 3	10%

Studio Assignment 4	10%
Studio Assignment 5	10%
Studio Assignment 6	10%
Final Project	30%
Attendance + Participation	5%
TOTAL	100%

Grading (letter grades will be determined as follows):

Grade	Points Used to Calculate GPA	Explanation	Percentage
A	4	Excellent	90% to 100%
B	3	Good	80% to 89%
C	2	Satisfactory	70% to 79%
D	1	Inferior	60% to 69%
F	0	Unsatisfactory	0% to 59%
+	+0.30	With A, B, C and D	-
-	-0.30	With A, B, C and D	-

Per University of Oregon Grading System <http://registrar.uoregon.edu/current-students/grading-system>

This course may not be taken pass/no pass. Assignments are due at the time indicated. An assignment turned in late will be reduced by one full grade. One additional grade drop (10%) will result for each additional 24-hour period the assignment is late. Non-submittal will result in the grade of "0". Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required. Incompletes are not encouraged due to cadence and prerequisites of courses in the program. However, an Incomplete may be issued when the student's work is satisfactory, but some minor essential requirements have not been finished. Students with an incomplete grade have one calendar year to make up the work, and will need to create (with the faculty) a robust contract detailing requirements and deadlines in order to remove the Incomplete grade.

Expanded Course Description (including subjects and topics to be explored): This studio is the third in a series of three courses (SPD 685, SPD 686 and SPD 687), in which students will use theories in physics/mechanics/aerodynamics, physiology/thermoregulation, ergonomics/fit, materials science, medical/neurological, sustainability, transportation and creative problem solving methods to explore and push the boundaries of new hard goods design solutions in the field of sports product design. Hard goods are products such as sporting equipment, transportation or machinery that yield utility over time, rather than being completely consumed in one use or over a short period of time. This course will address the relevant topics surrounding the link between an athlete's ability to perform successfully and the objects that they manipulate and utilize, as well as how design can help shape the future of this interaction. Students will conduct historical research and investigate use and failure patterns from reclaimed sport hard goods in order to generate new design opportunities that enhance performance, transportation and safety, to revolutionize the way that these products are made. Theories in human anatomy, anthropometrics and kinetics will also be studied as it relates to sports hard goods product shaping, sizing and fit. Students will also examine mechanical and physical performance theories related hard goods design, including: strike-ability, inflate-ability, impact attenuation, dexterity, cranial protection and portability/transportability. They will learn about sport hard goods ideation, pattern drafting, 3D modeling and construction, in order

accurately communicate their designs to others. Materials science will be explored to understand the technical requirements, for hard goods design. The Medici Effect phenomenon of “Intersections,” will also be used to enable ideation and new ways of conceptualizing products for sport. The studio nature of this course encourages physical prototyping and innovation, along with weekly seminars/critiques where students will continue to refine their critical design thinking and presentation skills in order to generate new knowledge in the field of sports product design.

Course Schedule: There will be two 2 hour and 50 minute sessions per week. Each class session will consist of a lecture/seminar discussion including reading responses and studio critiques by students (typically there will be an 40 minute lecture, a 10minute break and then another 2 hours for discussion and student critiques). Weekly written responses will be due at the beginning of class (in the first of two class sessions for the week). In addition to time spent in class, students will be expected to spend an average of 2.5 to 3 hours each week on readings and 18 hours on assignments. Graduate students are expected to spend 40 hours of engagement for each credit hour. For this course, students should engage for approximately 240 hours.

Learning Outcomes:

As a result of taking SPD 687, students will learn how to:

- Explore the process of relentless self-improvement as a designer by researching historical and current trends/technologies, to develop new design solutions that enhance athletic performance and health, in order to revolutionize and innovate new knowledge in the field of sports product design.
- Define and understand the design theories used to solve problems for the key sports hard goods product design classifications. This class will specifically use the Medici Effect phenomenon of “intersections,” as a case study.
- Conduct research relevant to sports hard goods design, including: human anatomy, anthropometrics and kinetics and athlete insights to generate new, inventive design opportunities in the field.
- Dissect and critically analyze sports hard goods design artifacts to understand sports-specific functional problems such as strike-ability, inflate-ability, impact attenuation, dexterity, cranial protection and portability/transportability.
- Ideate and prototype new sports hard goods product design ideas, through materials selection, pattern drafting, technical flats/specifications and construction.
- Build multi-media communication tools to identify and share with peers and the instructor new sports footwear design innovation opportunities.

Week 1: Overview of the Course’s Theoretical Framework and Seminar Discussion Topics

This course will begin with an overview of the syllabus, the IRB review process, followed by a seminar discussion of hard goods used for sport and the key theories (physics/mechanics/aerodynamics, physiology/thermoregulation, ergonomics/fit, materials science, medical/neurological, sustainability, transportation) used to develop new knowledge in the field of sports product design. The athlete’s body and key research considerations for product fit, mobility and athletic performance will also be addressed. Introduction of the Medici Effect and the phenomenon of “Intersections” will be reviewed and how it is used to invent new product ideas.

Readings and *Reading Responses:

Johansson (2006), Chapter One: The Intersection – Your Best Chance to Innovation, Chapter Two: The Rise of Intersections and Chapter Three: Break Down the Barrier Between Fields

*Reading Responses will be due at the beginning each week. Reading responses are 3 posed questions on 1 index card that will be used as part of the seminar discussion in class. They are handed in at the beginning of class.

Studio Assignment 1 - Strike-able Sport Hard Goods Dissection:

For this assignment, students will focus and investigate strike-able sport hard goods to back engineer how they were designed and discover how they could be designed for improved durability, handling and accuracy. Students will also use the “intersection of animals” for the ideation portion of this assignment. The research and product opportunities identified for this project will be presented in a 3-page *11” x17” visual layout, that will also be shown digitally in class in a critique format. Discussion of the sport product under analysis should include: features, benefits, materials, parts and construction outlined on page 1. For page 2, the intersection of animals should be reviewed and how the product under analysis could be informed by animal science. For page 3, students should show through sketch form how the product background research and animal science intersection could revolutionize the field through a new product opportunity. The product opportunity page should also describe the new features, benefits, materials, parts and construction.

*This 3-page, 11” x 17” layout format permits the assignment to be formatted into a design portfolio, while the digital presentation allows for an in-class seminar discussion and critique of the work, in order to generate innovative solutions for sports products. All assignments for this course will be formatted this way.

Studio Assignment 1 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 2.

Week 2: Strike-able Sport Hard Goods Design Theory

Seminar discussion of the assigned readings, including the mechanical theories used to design strike-able sport hard goods, including durability, handling and accuracy. Considerations for construction, material selection/design and sport performance will also be investigated, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Johansson (2006), Chapter Four: How to Make the Barriers Fall, Chapter Five: Randomly Combined Concepts and Chapter Six: How to Find the Combinations

Studio Assignment 2 - Inflate-able Sport Hard Goods Dissection:

For this assignment, students will focus and research sport inflate-able hard goods to back engineer how they were designed and discover how they could be designed for improved aerodynamics, durability, weather resistance and response. Students will also use the “intersection of toys: for the ideation portion of this assignment.

Studio Assignment 2 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 3.

Week 3: Inflate-able Sport Hard Goods Design Theory

Seminar discussion of the assigned readings, including the physics theories used to design inflate-able sport hard goods, including aerodynamics, abrasion/water resistance and responsiveness. Considerations for construction, material selection/design and sport performance will also be investigated, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Watkins and Dunne (2015), Chapter 6. Impact Protection

Johansson (2006), Chapter Seven: Ignite an Explosion of Ideas, Chapter Eight: How to Capture the Explosion and Chapter Nine: Execute Your Past Failures

Studio Assignment 3 - Impact Attenuating Sport Hard Goods Dissection:

For this assignment, students will focus and investigate reclaimed impact attenuating sport hard goods to back engineer how they were designed and discover how they could be improved for impact protection and thermoregulation. Students will also use the “intersection of nutrition” for the ideation portion of this assignment.

Studio Assignment 3 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 4.

Week 4: Impact Attenuating Sport Hard Goods Design Theory

Seminar discussion of the assigned readings, including the mechanical and thermoregulatory theories used to design impact attenuating sport hard goods, including impact protection, cooling and warming. Considerations for construction, material selection/design and sport performance will also be investigated, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Watkins and Dunne (2015), Chapter 8. Enhancing and Augmenting Body Functions

Johansson (2006), Chapter Ten: How to Succeed in the Face of Failure, Chapter Eleven: Break Out of Your Networks and Twelve: How to Leave the Network Behind

Studio Assignment 4 - Dexterous Sport Hard Goods Dissection:

For this assignment, students will focus and research dexterous sport hard goods to back engineer how they were designed and discover how they could be improved for dexterity and mobility. Students will also use the “intersection of medicine” for the ideation portion of this assignment.

Studio Assignment 4 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 5.

Week 5: Dexterous Sport Hard Goods Design Theory

Seminar discussion of the assigned readings, including the biomechanical theories used to design dexterous sport hard goods, including dexterity and mobility. Considerations for construction, material selection/design and sport performance will also be investigated, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Johansson (2006), Chapter Thirteen: Take Risks and Overcome Fear, Chapter Fourteen: How to Adopt a Balanced View of Risk and Chapter Fifteen: Step Into the Intersection

Studio Assignment 5 - Cranial Protective Sport Hard Goods Dissection:

For this assignment, students will focus and investigate reclaimed cranial protective sport hard goods to back engineer how they were designed and discover how they could be improved for cranial impact protection, thermoregulation and safety standards. Students will also use the “intersection of botany” for the ideation portion of this assignment.

Studio Assignment 5 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 6.

Week 6: Cranial Protective Sport Hard Goods Design Theory

Seminar discussion of the assigned readings, including the biomedical and safety theories used to design cranial protective sport hard goods, including concussion prevention and FDA/CE approval processes. Considerations for construction, material selection/design and sport performance will also be investigated, in order to define new innovative product solutions for the field.

Readings and Reading Responses:

Blumenthal (2011), Part Two, Chapter One: Getting Started, Chapter Two: Design Fundamentals and Chapter Three: How to Design

Studio Assignment 6 - Portable and Transportable Sport Hard Goods Design Dissection:

For this assignment, students will focus and investigate portable and transportable sport hard goods to back engineer how they were designed and discover how they could be improved for weight, mobility and environmental needs. Students will also use the “intersection of architecture” for the ideation portion of this assignment.

Studio Assignment 6 will be presented digitally, in front of the class, in a critique format. It will be due at the end of Week 7.

Week 7: Portable and Transportable Sport Hard Goods Design Theory

Seminar discussion of the assigned readings, including the engineering theories used to design portable and transportable sport hard goods for lightweight, mobility and environmental needs. Considerations for construction, material selection/design and sport performance will be investigated, in order to define new innovative product solutions for the field.

Final Project - Sport Hard Goods Opportunity:

From the work done throughout the course, students will identify a unique sport hard goods product opportunity that will generate new knowledge in the field. Students will research, ideate, draft and construct a 1:1 scale product design prototype that encompasses the theories learned during the course. This prototype will be presented as the final for the class (along with a multi-media presentation).

For the beginning of Week 8 students will come prepared to present their new sport hard goods product opportunity in terms of:

- Identifying a new sport hard goods market opportunity and product classification
- Historical artifact analysis that identify design priorities for a new sport product
- Anatomical and anthropometric research that determines the new product's ergonomic shape and sizing needs for the athlete
- Mechanical performance and athlete insights related to the new sports design opportunity
- New sports hard goods product brief
- Preliminary materials palette for the product concept

Weeks 8, 9 and 10: Sport Hard Goods Opportunity

Students will continue to develop their sport hard goods product design opportunity. For the final, students will establish their final design direction, then make patterns/3D models and their 1:1 scale product prototype to present at the final (along with a multi-media presentation).

Multi-media presentations should include:

- New sport hard goods product market opportunity and product classification
- Supporting research in historical artifact analysis, anatomical/anthropometric research, sport performance needs and athlete insights
- Product design brief
- Design process documentation
- 1:1 scale prototype

For the beginning of Week 9 students should come prepared with their preliminary multi-media presentation to share with the class. The preliminary presentation should include:

- New sport hard goods product design market opportunity and product classification
- Supporting research in historical artifact analysis, anatomical/anthropometric research, sport performance needs and athlete insights
- Product design brief
- Design process documentation @ 50% completion
- 1:1 scale prototype @ 50% completion

Finals Week: Sport Hard Goods Product Design Opportunity Presentation

Final multi-media presentation and critique of each student's new sport hard goods product opportunity and how the idea contributes new knowledge for the sports product design industry. The project presentation will be due at the time scheduled for the final exam (there will be no final exam in the course).

Structure, Assignments and Student Engagement:

- Students are required to engage in class with their peers and instructor. Seminar discussions, analyses of products and assignment critiques will occur. Various methods of engagement will be available, including questions submitted prior to class, in-class questions, and being called on for one's thoughts.
- For weeks 1-6, students will be assigned readings where they will be required to produce a series of "reading responses" in reaction to the content read. Reading responses for this course are 3 questions that the student may have as they read the required assignment, or questions that may probe the content. The questions are turned into the instructor at the beginning of each class on one index card. The instructor will review these responses in class (on the same day) and use them as a platform for scholarly discussion/seminar and further explanation of the concepts presented.

- Assignments 1-6 are holistic in nature, where students will observe and analyze sports product artifacts, in order to strategize around new design solutions. These assignments will allow students to work in specific sports equipment product classifications and learn about athletic performance needs. As students get deep into each sport hard goods product classification, they will learn about methods of make/construction, materials and blue prints created for product development.
- For the final project, students will learn how to make a new sport hard goods design concept and prototype a 1:1 scale looks like/feels like model/prototype.
- Homework assignments are not accepted late. They must be submitted in person when class begins. Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required.
- The studio nature of this course encourages making and innovation, along with weekly critiques where students will continue to refine their critical design thinking and presentation skills. Critiques in the field of product design are a collaborative process where the attendees involved provide feedback on the design work presented and how it aligns to the theories used to approach the work. Critiques in the academic environment also help students manage through the complex design process, to insure that their final solution solves the course goals, by providing a structured discussion around design methodologies and solution paths that may not have been considered by the student. Successful critiques are where the designer (student) has a clear understanding of their next steps (things to improve upon) and the understanding of what is working well (things to continue/elaborate upon).

Student Engagement Inventory: As a 6-credit graduate course, students are expected to spend a total of 240 hours for this course.

Educational Activity	Hours Student Engaged	Explanatory Comments
Course attendance	56	Classroom scheduled for 2hrs 50min/class x 2 times/week
Assigned readings	25	Assigned Textbooks
Project	65	Designed (by hand/computer) and physical prototypes of new sports apparel product concepts
Field work	30	Retail research and athlete meeting for insights
Lab work, experience	44	Physical making of concepts in the studio or Innovation Lab
Performance, creative activities	20	Product presentations and critiques
Total hours	240	

Documented Disabilities: Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the UO Accessible Education Center send a letter verifying the disability.

Academic Misconduct: You are expected at all times to do your own work. Copying content

from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct.

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Interviews, Research Compliance Services and Institutional Review Board Protocols: In general, student interaction with individuals that occurs for the purpose of fulfilling a single course requirement does not require Research Compliance Services (RCS) and Institutional Review Board (IRB) review and approval because it does not meet the definition of “human subjects research,” as that term is defined in the federal regulations on research with human subjects. However, there are times when students do engage in “human subjects research” that requires IRB review and approval as part of fulfilling a course requirement. Whenever a student interacts with individuals (or individually identifiable data) with the intent of sharing findings beyond the classroom (e.g. in a paper, conference presentation, video, etc.) for the purpose of expanding a body of knowledge, the interaction could constitute human subjects research requiring IRB review and approval. If at any point you would like to use data for a publishable paper, a conference presentation, etc., or if you are unsure about whether or not you need IRB review and approval, you should contact the University of Oregon Research Compliance Services office.

Proposal For a New Course

College	School of Architecture and Allied Arts
Department	Product Design Program
Subject	Sports Product Design
Graduate Course Number	SPD 688
Graduate Course Title	Sports Product Design Innovative Project Strategy Development Studio
Minimum Course Credits	6
Maximum Course Credits (per instance)	6
UO Grading Option	Graded only
Course Level	Graduate only
Instructional Type	Studio
Faculty Available to Teach	Susan L Sokolowski, PhD or New TTF Sports Product Design Hire (Fall 2017), Beth Esponnette, Erdem Selek, and Sports Product Design Adjunct Faculty
Previous Course Number	None
How Often Course Will Be Offered	Offered year 2 (Winter Term) in the MS Sports Product Design program
Course Description	Part I of a two-term capstone graduate level studio course that critically looks at the alignment of design, materials, science, sustainability, research and business theories to create an innovative sports product design opportunity
Weekly Contact Hours	6
Weekly Out-of-Class Workload	18
Gen-Ed Group Satisfaction	Does not satisfy Gen-Ed Group requirement
Gen-Ed Multicultural Satisfaction	Does not satisfy Gen-Ed Multicultural requirement
(Taught By) Other Department	This course content is solely taught by this department
Budgetary Impact	None
Department Authorization	John Arndt (Acting Product Design Program Director)
Data Entry Performed By	Susan L Sokolowski, PhD

NEW COURSE PROPOSAL

**SPORTS PRODUCT DESIGN INNOVATIVE PROJECT STRATEGY DEVELOPMENT
STUDIO
SPD 688**

Course Proposal Submitted: November 2015

Contact: Susan L Sokolowski, PhD, Associate Professor of Product Design, Director of Product Design Portland Programs and Co-Director of the Sports Institute, School of Architecture and Allied Arts

1. **Course Number:** SPD 688
2. **Course Title:** Sports Product Design Innovative Project Strategy Development Studio
3. **Credits:** 6
4. **Term, Place, Time and Instructors:** This is a new course. It will be offered during year 2 of the MS in Sports Product Design Program. It will be offered during Winter Term, beginning in Winter 2017 on Tuesdays and Thursdays from 9am to 11:50am (at the Portland White Stag PD Studio). It will be taught by Susan L Sokolowski, PhD or the New TTF Sports Product Design Hire (Fall 2017), Beth Esponnette, Erdem Selek, and Sports Product Design Adjunct Faculty.
5. **Position in the Curriculum:** This course is open to 2nd year students of the Sports Product Design Master's Program. This course does not satisfy a Group, Multicultural or other General Education requirement. This course is preparatory for SPD 689. The prerequisites for this course are SPD 650, 684, 685, 686 and 687.
6. **Format:** Studio/Lab.
7. **Outline of Subjects and Topics Explored** (See Expanded Course Description for More Details):
 - I. Overview of the Course's Theoretical Framework and Seminar Discussion Topics
 - A. Syllabus overview
 - B. IRB review
 - C. Capstone Project problem framing theories
 - D. Design research planning
 - E. Innovation process/project management
 - II. Business Case Development

- A. Product and competitor benchmarking
- B. Value chain analysis

III. Field Research Methodologies

- A. Questionnaires and surveys
- B. Observations and picture interviews
- C. Focus groups and 1:1 interviews
- D. Remote research
- E. Market research
- F. Experimental research

IV. Field Work/Research

V. Research Synthesis

- A. Database building
- B. Insights sorting
- C. Descriptive value web
- D. Entities position map
- E. Venn and lattice diagramming
- F. User journey/experience maps
- G. Clustering matrices
- H. Design principle generation

VI. Product Brief Development

- I. Product name
- J. Season of delivery
- K. Retail price point Description of consumer and environment
- L. Goals of the new product design/product/biz opportunity - what will it do for the user/athlete?
- M. Key features and benefits
- N. Materials and manufacturing direction
- O. Aesthetic and styling direction

VII. Concept Ideation

- A. Value hypothesis
- B. Persona definition
- C. Mind mapping
- D. Concept metaphors and analogies
- E. Concept sorting

VIII. Prototyping Plans

- A. Materials
- B. Method of make
- C. Color
- D. Graphics
- E. Manufacturing machinery

IX. Validation

- A. Focus groups and 1:1 interviews

- B. Wear testing
- C. Lab testing
- D. Polled feedback

- X. Synthesis of Work
 - A. Presentation prep & storytelling

- XI. Final Presentation: Capstone Project Proposal
 - M. Business case
 - N. Field work process
 - O. User/Athlete research findings
 - P. Concept ideation
 - Q. Prototyping plans
 - R. Validation plans

8. Course Materials:

Required Text:

Jeanne Liedtka and Tim Ogilvie, *Designing for Growth: A Design Thinking Tool Kit for Managers*, (New York: Columbia Business School Press, 2011).

- 10. Instructor Expectations of Students:** Students will be expected to attend all classes, participate in all seminar discussions/critiques, do readings of approximately 30-40 pages/week, complete and present at all 8 studio critiques, and present the final studio project (with a digital presentation). For this course students will be required to conduct a variety of field work, including: writing and carrying out questionnaires and surveys, collecting observations/ picture interviews, focus groups and 1:1 interviews, remote research, market research and experimental research. This class will also require the knowledge of pattern drafting, writing, sketching/ideation, 3D modeling, technical drawing and prototyping in order to complete a successful Capstone project proposal.

10. Assessment:

Reading Responses	5%
Studio Assignment 1	9%
Studio Assignment 2	9%
Studio Assignment 3	9%
Studio Assignment 4	9%
Studio Assignment 5	9%
Studio Assignment 6	9%
Studio Assignment 7	9%
Studio Assignment 8	9%
Final Project Presentation	18%
Attendance + Participation	5%
TOTAL	100%

Grading (letter grades will be determined as follows):

Grade	Points Used to Calculate GPA	Explanation	Percentage
A	4	Excellent	90% to 100%
B	3	Good	80% to 89%
C	2	Satisfactory	70% to 79%

D	1	Inferior	60% to 69%
F	0	Unsatisfactory	0% to 59%
+	+0.30	With A, B, C and D	-
-	-0.30	With A, B, C and D	-

Per University of Oregon Grading System <http://registrar.uoregon.edu/current-students/grading-system>

This course may not be taken pass/no pass. Assignments are due at the time indicated. An assignment turned in late will be reduced by one full grade. One additional grade drop (10%) will result for each additional 24-hour period the assignment is late. Non-submittal will result in the grade of "0". Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required. Incompletes are not encouraged due to cadence and prerequisites of courses in the program. However, an Incomplete may be issued when the student's work is satisfactory, but some minor essential requirements have not been finished. Students with an incomplete grade have one calendar year to make up the work, and will need to create (with the faculty) a robust contract detailing requirements and deadlines in order to remove the incomplete grade.

Expanded Course Description: The Sports Product Design Innovative Project Strategy Development Studio is Part I of a two-term capstone graduate level course sequence that focuses on the alignment of design, materials, science, sustainability, research (literature and field) and business theories to create an innovative product and expand new knowledge in the field of sports product design. In an effort to leverage this approach, design students will examine the main factors contributing to the design process: building a business case, devising and conducting field/literature research, synthesizing the research to build a brief, concept ideation, prototyping and developing validation plans. The studio nature of this course encourages idea generation and the development of innovative designs through experimentation and iterative design development. The work should also iterate how the new knowledge will push the boundaries in the sports product design industry. The ultimate result of this course will be a capstone project proposal. **The proposal should identify a new sports design product innovation opportunity that will be developed in the Collaborative Sports Product Design Creation & Launch Studio course (SPD 689).**

Course Schedule: There will be two 2 hour and 50 minute sessions per week. Each class session will consist of a lecture/seminar discussion including reading responses and studio critiques by students (typically there will be an 40 minute lecture, a 10 minute break and then another 2 hours for discussion and student critiques). Weekly written responses will be due at the beginning of class (in the first of two class sessions for the week). In addition to time spent in class, students will be expected to spend an average of 2.5 to 3 hours each week on readings and 18 hours on assignments. Graduate students are expected to spend 40 hours of engagement for each credit hour. For this course, students should be engaged for approximately 240 hours.

Learning Outcomes:

As a result of taking SPD 688, students will learn how to:

- Create a sports product design research and project strategy, in order to actualize an innovative sports product design opportunity and contribute new knowledge in the field of sports product design.

- Execute field (along with literature) research through questionnaires and surveys, observations and picture interviews, focus groups and 1:1 interviews, remote research, market research and/or experimental research to address the proposed sports product opportunity space, and collect and analyze qualitative and quantitative data to produce innovative foresight regarding the user/sport needs and design opportunity.
- Formulate a strategic design execution plan in response to the research findings resulting in an innovative sport design product and product line opportunities.
- Build multi-media communication tools to communicate research, design strategy and new knowledge with peers, instructors, end users/athletes, and industry partners.

Week 1: Overview of the Course's Theoretical Framework and Seminar Discussion Topics

This course will review the syllabus, IRB review process, and seminar discussion on what capstone project is and how to plan for it. Students will learn about problem-framing approaches, the role of design research (literature and field) and innovation project management in order to drive product innovation and new knowledge in the field of sports product design.

Readings and *Reading Responses:

Liedtka and Ogilvie (2011), *Designing for Growth*, Sec 1, pg. 1-38

*Reading Responses will be due at the beginning each week. Reading responses are 3 posed questions on 1 index card that will be used as part of the seminar discussion in class. They are handed in at the beginning of class.

Studio Assignment 1 - Business Case Research:

For this assignment, students will focus, research and identify a unique sports product design opportunity. Opportunities should be focused in areas the student's particular strength as a designer and portfolio needs. Students will determine:

- Sport focus area
- Sport product area (soft/hard goods, footwear)
- Consumer focus
- Competitor landscaping
- Value chain analysis

The research and opportunities identified for this project will be presented in a 4-page *11" x17" visual layout, that will also be shown digitally in class in a critique format. Discussion of the sport focus and product area should be outlined on page 1. For page 2, the consumer should be summarized. For page 3, students explain the competitor landscape and page 4 should review the value chain analysis for the sport product type. Studio Assignment 1 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 2.

*This 11" x 17" layout format permits the assignment to be formatted into a design portfolio, while the digital presentation allows for an in-class seminar discussion and critique of the work, in order to generate innovative solutions for sports products. All studio assignments (except for #4, 5, 6 and 8) for this course should be formatted this way.

Week 2: Business Case Development

Seminar discussion of the assigned readings, including an understanding of how to build a business case, for a new sports product design opportunity. Students will explore how

opportunities are identified through analyzing specific sport product design case studies and consumer/athlete desire for change.

Readings and Reading Responses:

Liedtka and Ogilvie (2011), Designing for Growth, Sec 2, pg. 39-74

Studio Assignment 2 - Field Work/Research Plans:

For this assignment, students will select and map out 3-4 field research methods that they will focus upon, in order to build the design strategy, for a specific sport product market segment. The research methods to consider, should include:

- Questionnaires and surveys
- Observations and picture interviews
- Focus groups and 1:1 interviews
- Remote research
- Market research
- Experimental research

The research plans outlined for this project will be presented in a 3 to 4-page 11" x17" visual layout, that will also be shown digitally in class in a critique format. Each page should highlight the type of research and details of how it will be executed. Students will also need to identify who/what they will approach to collecting research data and start making contacts, so in Week 5 the research is conducted efficiently. Studio Assignment 2 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 3.

Week 3: Field Work/Research Methods

Seminar discussion of the assigned readings and an overview of the various field research methodologies used to learn about product design opportunities. Students will spend this week planning-out in detail their field work/research plans, so they are prepared to collect data. Plans should consider 3-4 of the following types of research methods: questionnaires/surveys, observations/picture interviews, focus groups/1:1 interviews, remote research, market research and/or experimental research so the new knowledge learned comes from several perspectives – this will ensure the capstone product design proposal is well rounded, considering all points of view.

Readings and Reading Responses:

Liedtka and Ogilvie (2011), Designing for Growth, Sec 2, pg. 75-93

Studio Assignment 3 - Field Work/Research Preparation:

For this assignment, students will finalize their field work/research plans. Plans should focus upon:

- List of confirmed interviewees
- Confirmed interview appointments
- Finalized interview questions
- A method of documenting the interviews (including written and visual documentation)

Students are to revise the work from Studio Assignment 2, based upon class feedback and build-out an additional three 11" x17" pages that outline the list of confirmed interviewees and appointments (page 1), finalized interview questions (page 2) and direction for documenting the interviews (page 3). Studio Assignment 3 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 4.

Week 4: Field Work/Research

Seminar discussion of the assigned readings, including student-specific data collection challenges. This week will be mostly focused on collecting data out in the field. Students will need to make sure to manage their time appropriately and make sure goals of each research method are achieved. For the beginning of week 5, students need to come to class with all of their raw data, so synthesizing can begin.

Readings and Reading Responses:

Liedtka and Ogilvie (2011), Designing for Growth, Sec 3, pg. 93-113

Week 5: Research Synthesis

Seminar discussion of the assigned readings, including collaborative work to organize and synthesize the data students collected in Week 4 through the research. Specific sorting and mapping exercises will be used to create a design point of view that can be translated into a product brief.

Readings and Reading Responses:

Liedtka and Ogilvie (2011), Designing for Growth, Sec 4, pg. 121-140

Studio Assignment 4 - Brief Preparation:

From the work done collaboratively in class, students will focus on outlining the necessary attributes for a product brief. For this assignment prepare:

- Ideas for a final product name
- Retail price point range
- Goals of the new product design
- List of features and benefits
- Aesthetic and styling direction
- Season of delivery
- Visual description of consumer and product use environment
- Ideas for materials and manufacturing

Studio Assignment 4 will be presented on boards, in a format that can be rearranged live as we work through the most critical details in seminar. It will be due at the beginning of Week 6.

Week 6: Product Brief Development

Seminar discussion of the assigned readings and how to develop a sports product design brief.

All briefs need to include:

- Product name
- Retail price point
- Goals of the new product
- Aesthetic and styling direction
- Season of delivery
- Description of consumer and sport environment
- Key features and benefits
- Materials and manufacturing direction

Readings and Reading Responses:

Liedtka and Ogilvie (2011), Designing for Growth, Sec 4, pg. 141-150

Studio Assignment 5: Ideation Preparation

From the product brief, students will focus on exploring ideation paths for their new sports product design opportunity. They will start with a value hypothesis and persona definition to ground the work. Some of the ideation could include mind mapping, concept metaphors and analogies.

Studio Assignment 5 will be presented in sketch form (have at least 100 sketches), in front of the class, pinned on boards, in a critique format. It will be due at the beginning of Week 7.

Week 7: Concept Ideation

Seminar discussion of the readings, including critiques of each student's ideation work. At the end of this week, students should have about 175-200 sketches for their sports product design that depict the invention and innovation space. From these sketches, students should be able to sort them into themes, based upon performance attributes, method of make or material attributes.

Readings and Reading Responses:

Liedtka and Ogilvie (2011), Designing for Growth, Sec 5, pg. 151-164

Studio Assignment 6 - Prototyping Planning Preparation:

For this assignment students will brainstorm ways they think they can prototype the concepts ideated in Week 6. From the top 10 ideas selected, brainstorm about:

- Materials
- Color
- Manufacturing machinery
- Method of make
- Graphics

Studio Assignment 6 will be presented on boards, in a format that can be rearranged live as we work through details in collaboration during class, in a critique format. It will be due at the beginning of Week 8.

Week 8: Prototyping Plans

Seminar discussion of the assigned readings and prototyping plans. Students this week will focus on building a prototyping plan, so they allow cost effectiveness, sustainability and efficiency. At the end of this week, students should have a solid prototyping plan that can be presented digitally to the class for discussion and final refinement.

Readings and Reading Responses:

Liedtka and Ogilvie (2011), Designing for Growth, Sec 5, pg. 165-178

Studio Assignment 7 - Validation Preparation:

Products designed for sport need to be validated and tested before they go to market, to ensure their safety and performance. For this week, students research and select 2 ways that they can validate their new product prototype with the user. The methods to consider, should include:

- Focus groups and 1:1 interviews
- Lab testing
- Wear testing
- Polled user feedback (via chat room/web)

The 2 validation plans outlined for this project will be presented in a 2-page 11" x17" visual layout, that will also be shown digitally in class in a critique format. Each page should highlight the type of validation testing and details of how it will be executed. Students will also need to identify who/what they will approach to collecting the data and start making contacts, so in the information can be collected efficiently. Studio Assignment 7 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 9.

Week 9: Validation Plans

Seminar discussion of the assigned readings, and a review of each student's product validation plan. Plans need to be replicable and relevant for the new sports product prototype.

At the end of this week, students should have identified and planned out 2 methods that they will use to validate their new sports product design prototype. Students will present this plan digitally to the class for discussion and refinement.

Readings and Reading Responses:

Liedtka and Ogilvie (2011), *Designing for Growth*, Sec 5, pg. 179-197

Studio Assignment 8 - Presentation Layout:

For this assignment, students will focus on storyboarding their final capstone project proposal. Each presentation needs to include the following content show how the work contributes to new knowledge in the field of sports product design:

- Business case
- User/athlete research findings
- Prototyping plans
- Field work/research process
- Concept ideation
- Validation plans

Studio Assignment 8 will be presented in sketch form, in front of the class on boards, in a critique format. It will be due at the beginning of Week 10.

Week 10: Synthesis of Work

Seminar discussion of the assigned readings and review of the requirements needed for the final capstone project proposal. The final capstone project proposal is a result of synthesizing the work created throughout the course, into one concise presentation. Capstone project proposals need to include: a business case, field work/research process, user/athlete/field research findings, concept ideation, prototyping and validation plans. It also should show how the work contributes to new knowledge in the field of sports product design

Finals Week: Final Presentation - Capstone Project Proposal

Final presentation and critique of each student's capstone project proposal. The project presentation will be due at the time scheduled for the final exam (there will be no final exam in the course).

Structure, Assignments and Student Engagement:

- Students are required to engage in class with their peers and instructor. Seminar discussions, analyses of products and assignment critiques will occur. Various methods of engagement will be available, including questions submitted prior to class, in-class questions, and being called on for one's thoughts.
- For weeks 1-9, students will be assigned readings where they will be required to produce a series of "reading responses" in reaction to the content read. Reading responses for this course are 3 questions that the student may have as they read the required assignment, or questions that may probe the content. The questions are turned into the instructor at the beginning of each class on one index card. The instructor will review these responses in class (on the same day) and use them as a platform for scholarly discussion/seminar and further explanation of the concepts presented.
- Studio assignments 1- 8 allow students to explore and understand the different elements needed to create a solid project proposal, including: building a business case, devising field research, conducting field research, synthesizing the research to build a brief, concept ideation, prototyping and developing validation plans.
- For the final project, students will create a capstone project proposal, which will identify a unique sports product design opportunity.

- Homework assignments are not accepted late. They must be submitted in person when class begins. Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required.
- The studio nature of this course encourages ideation and innovation, along with weekly critiques where students will continue to refine their critical design thinking and presentation skills. Critiques in the field of product design are a collaborative process where the attendees involved provide feedback on the design work presented and how it aligns to the theories (design, materials, science, research and business) used to approach the work. Critiques in the academic environment also help students manage through the complex design process, to insure that their final solution solves the course goals, by providing a structured discussion around design methodologies and solution paths that may not have been considered by the student. Successful critiques are where the designer (student) has a clear understanding of their next steps (things to improve upon) and the understanding of what is working well (things to continue/elaborate upon).

Student Engagement Inventory: As a 6-credit graduate course, students are expected to spend a total of 240 hours for this course.

Educational Activity	Hours Student Engaged	Explanatory Comments
Course attendance	56	Classroom scheduled for 2hrs 50min/class x 2 times/week
Assigned readings	14	Assigned textbooks
Project	90	Research framing, literature search, data collection, analysis, concept development, hypothesis testing
Field work	30	Field research and athlete insights
Writing assignments	20	Assignments and proposal
Performance, creative activities	30	Class presentations and critiques, sketching/ideation
Total hours	240	

Documented Disabilities: Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the UO Accessible Education Center send a letter verifying the disability

Academic Misconduct: You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct.

Plagiarism: Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas). If there is any question about whether an act constitutes

academic misconduct, it is the student's obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at <http://library.uoregon.edu/guides/plagiarism/students/index.html>

Inclusion Statement: The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website at <http://bias.uoregon.edu/index.html> or by phoning 541-346-2037.

Interviews, Research Compliance Services and Institutional Review Board Protocols: In general, student interaction with individuals that occurs for the purpose of fulfilling a single course requirement does not require Research Compliance Services (RCS) and Institutional Review Board (IRB) review and approval because it does not meet the definition of "human subjects research," as that term is defined in the federal regulations on research with human subjects. However, there are times when students do engage in "human subjects research" that requires IRB review and approval as part of fulfilling a course requirement. Whenever a student interacts with individuals (or individually identifiable data) with the intent of sharing findings beyond the classroom (e.g. in a paper, conference presentation, video, etc.) for the purpose of expanding a body of knowledge, the interaction could constitute human subjects research requiring IRB review and approval. If at any point you would like to use data for a publishable paper, a conference presentation, etc., or if you are unsure about whether or not you need IRB review and approval, you should contact the University of Oregon Research Compliance Services office.

Proposal For a New Course

College	School of Architecture and Allied Arts
Department	Product Design Program
Subject	Sports Product Design
Graduate Course Number	SPD 689
Graduate Course Title	Collaborative Sports Product Design Creation & Launch Studio
Minimum Course Credits	9
Maximum Course Credits (per instance)	9
UO Grading Option	Graded only
Course Level	Graduate only
Instructional Type	Studio
Faculty Available to Teach	Susan L Sokolowski, PhD or the new Sports Product Design TTF Hire (Fall 2017), Wonhee Arndt, Beth Esponnette, and Sports Product Design Adjunct Faculty
Previous Course Number	None
How Often Course Will Be Offered	Offered year 2 (Spring Term) in the MS Sports Product Design program
Course Description	Part II of a two-term capstone graduate level studio course that critically looks at the alignment of design, materials, science, research and business theories to create an innovative sports product design opportunity.
Weekly Contact Hours	9
Weekly Out-of-Class Workload	27
Gen-Ed Group Satisfaction	Does not satisfy Gen-Ed Group requirement
Gen-Ed Multicultural Satisfaction	Does not satisfy Gen-Ed Multicultural requirement
(Taught By) Other Department	This course content is solely taught by this department
Budgetary Impact	None
Department Authorization	John Arndt (Acting Product Design Program Director)
Data Entry Performed By	Susan L Sokolowski, PhD

NEW COURSE PROPOSAL

**COLLABORATIVE SPORTS PRODUCT DESIGN CREATION & LAUNCH STUDIO
SPD 689**

Course Proposal Submitted: October 2015

Contact: Susan L Sokolowski, PhD, Associate Professor of Product Design, Director of Product Design Portland Programs and Co-Director of the Sports Institute, School of Architecture and Allied Arts

1. **Course Number:** SPD 689
2. **Course Title:** Collaborative Sports Product Design Creation & Launch Studio
3. **Credits:** 9
4. **Term, Place, Time & Instructors:** This is a new course. It will be offered during year 2 of the MS in Sports Product Design Program. It will be offered during Spring term, beginning in Spring 2017 on Mondays, Wednesdays & Fridays from 9am to 11:50am (at the Portland White Stag PD Studio). It will be taught by Susan L Sokolowski, PhD or the new Sports Product Design TTF Hire (Fall 2017), Wonhee Arndt, Beth Esponnette, and Sports Product Design Adjunct Faculty.
5. **Position in the Curriculum:** This course is open to 2nd year students of the Sports Product Design Master's Program. This course does not satisfy a Group, Multicultural or other General Education requirement. This course is not preparatory for other courses. The prerequisite for this course is SPD 688.
6. **Format:** Studio/Lab.
7. **Outline of Subjects & Topics Explored** (See Expanded Course Description for More Details):
 - I. Overview of the Course's Theoretical Framework, Seminar Discussion Topics and Mentor Meeting
 - A. Syllabus overview
 - B. IRB review
 - C. Capstone project goals
 - D. Sports product design project proposals review
 - E. Product prototyping planning
 - II. Prototyping Approaches for Usability Testing

- A. Product prototyping development
 - B. Preparation for user/athlete testing
- III. Prototyping Critique and User/Athlete Testing
- A. Data collection
- IV. User/Athlete Testing Synthesis, Prototype Findings and Product Validation Critique
- A. Product revision recommendations
 - B. User/athlete testing report
- V. Product Packaging and Branding Strategy
- A. Sports product packaging forms
 - B. Sports product branding strategies
 - C. Concept refinement
 - D. Packaging ideation
 - E. Branding ideation
- VI. Product Concept Refinement and Critique (concept refinement and packaging)
- A. Concept refinement continuation
 - B. Product story development
- VII. Storytelling Strategies in Product Design
- A. Story telling methodology
 - B. Concept refinement continuation
- VIII. Video Storytelling and Critique (communication and branding)
- A. Video story development
 - B. Product design exhibit development
 - C. Concept refinement continuation
- IX. Product Design Exhibit Development Through Pop-Up Retail Approaches
- A. Pop-up retail methodologies
 - B. Product exhibit refinement
 - C. Concept refinement continuation
- X. Final Capstone Project Exhibit
- XI. Final Capstone Project Presentation

Course Materials:

Required Texts:

Jonathan Cagan and Craig Vogel, *Creating Breakthrough Products: Revealing the Secrets That Drive Global Innovation*, 2nd Edition (Upper Saddle River: Pearson Education, 2013).

Tom Kelley and Jonathan Littman, *The Art of Innovation* (New York: Doubleday, 2001).

Alex Milton and Paul Rodgers, *Research Methods for Product Design* (London: Laurence King Publishing, 2013).

Elizabeth Goodman, Mike Kuniavsky and Andrea Moed, *Observing the User Experience*, 2nd Edition (Waltham: Elsevier, 2012).

Brenda Laurel and Peter Lunenfeld, *Design Research: Methods and Perspectives* (Boston: Massachusetts Institute of Technology, 2003).

Jeff Sauro and James Lewis, *Quantifying the User Experience: Practical Statistics for User Research* (Waltham: Elsevier, 2012).

Tim Brown, *Change by Design* (New York: HarperCollins, 2009).

Bruce Block, *The Visual Story: Creating the Visual Structure of Film, TV and Digital Media*, 2nd Edition (Abingdon: Focal Press, 2008).

Christina Norsig, *Pop-Up Retail: How You Can Master This Global Marketing Phenomenon* (New York: Bauhaus Press, 2011).

Supplies:

Sewing machine/bobbins and needles	Muslin for initial prototyping
18" x 2" see through ruler	12" x 2" see through ruler
Small fabric scissors	Seam ripper and Exacto knife
Paper and fabric scissors	French curve
24" hip curve	Tape measure
Tracing wheel and paper	Hand sewing needles
Tailor's wax (the kind that disappears when ironed)	Size 17 satin pins (pins with colored plastic ends will be unacceptable b/c they melt, and any assignment turned in with them will receive a F – those are not industry relevant)
1/4" black twill tape or 1/8" black Chartpak tape	Pencils (not mechanical)
Pencil sharpener	Toolbox for all supplies
Black and white thread	Pattern paper
Black or dark colored grease pencil or crayons	Index cards
C & C foam for prototyping	Glue gun and glue

* Other supplies may be needed, per individual project needs.

11. Instructor Expectations of Students: Students will be expected to attend all classes, participate in all seminar discussions/critiques, do readings of approximately 30 pages/week, complete and present at all 4 studio critiques, and present the final studio project critique (with a digital presentation). For this course students will be require to conduct user/athlete testing in order to validate their sports product design concept. This class will also require the knowledge of pattern drafting, writing, sketching/ideation, 3D modeling, technical drawing and prototyping.

12. Assessment:

Reading Responses	6%
Studio Assignment 1	6%

Studio Assignment 2	8%
Studio Assignment 3	8%
Studio Assignment 4	8%
Studio Assignment 5	8%
Studio Assignment 6	8%
Studio Assignment 7	8%
Studio Assignment 8	10%
Studio Assignment 9	10%
Final Project Presentation	15%
Attendance + Participation	5%
TOTAL	100%

Grading (letter grades will be determined as follows):

Grade	Points Used to Calculate GPA	Explanation	Percentage
A	4	Excellent	90% to 100%
B	3	Good	80% to 89%
C	2	Satisfactory	70% to 79%
D	1	Inferior	60% to 69%
F	0	Unsatisfactory	0% to 59%
+	+0.30	With A, B, C and D	-
-	-0.30	With A, B, C and D	-

Per University of Oregon Grading System <http://registrar.uoregon.edu/current-students/grading-system>

This course may not be taken pass/no pass. Assignments are due at the time indicated. An assignment turned in late will be reduced by one full grade. One additional grade drop (10%) will result for each additional 24-hour period the assignment is late. Non-submittal will result in the grade of "0". Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required. Incompletes are not encouraged due to cadence and prerequisites of courses in the program. However, an Incomplete may be issued when the student's work is satisfactory, but some minor essential requirements have not been finished. Students with an incomplete grade have one calendar year to make up the work, and will need to create (with the faculty) a robust contract detailing requirements and deadlines in order to remove the incomplete grade.

Expanded Course Description: The Collaborative Sports Product Design Creation & Launch Studio is the terminal capstone course sequence for the MS in Sports Product Design. SPD 689 focuses on the critical alignment and synthesizing of design, materials, science, research and business theories to create an innovative product design opportunity and new knowledge in the field of sports product design. As a continuation to the SPD 688 course, students will develop a new sports design product design innovation into a marketable, 1:1 scale product prototype that is validated through usability testing. The final deliverables for this capstone project include: a project proposal (business case, field and user/athlete research, concept ideation, prototyping and validation plans), prototypes, final 1:1 scale product model, usability testing/validation of the model, packaging/ branding design, an exhibit and final presentation. As a component of this execution, students will collaborate with outside industry experts who will serve as mentors. This is a common practice in Graduate Design programs, where students work with a mentor within a specified industry to gain knowledge about the field, while

practicing design. Mentors for this course will need to be significant contributors in the sports design industry (authors of note-able patents, grown/owned businesses through the focus of sports design, designed new materials/constructions/ processes, etc.) and will need to be approved by the instructor. For this course, the instructor will facilitate the mentor relationships, by building a list of relevant mentors for the students to select from. Appropriate mentors will share an interest in volunteering their time, interest and expertise in the student's topic area and the ability to provide critical feedback. The studio nature of this course encourages idea generation and the development of innovative designs through experimentation, identification of knowledge gaps and iterative design development, along with critiques where students will continue to refine their critical design thinking and presentation skills.

Course Schedule

There will be three 2 hour and 50 minute sessions per week. Each class session will consist of a lecture/seminar discussion including reading responses and studio critiques by students (typically there will be an 40 minute lecture, a 10 minute break and then another 2 hours for discussion and student critiques). For the weeks where there are assigned readings, a written responses will be due at the beginning of class (in the first of three class sessions for the week). In addition to time spent in class, students will be expected to spend an average of 2.5 to 3 hours each week on readings and 27 hours on assignments. Graduate students are expected to spend 40 hours of engagement for each credit hour. For this course, students should be engaged for approximately 360 hours.

Learning Outcomes:

As a result of taking SPD 689, students will learn how to:

- Apply product prototyping and user performance testing processes to leverage innovative design refinement.
- Critically evaluate product prototypes for manufacturing feasibility, sourcing, sustainability and pricing.
- Utilize multi-media storytelling to build a pop-up type public exhibit to communicate sports product design innovation and new knowledge with peers, instructors, end users/athletes, and industry partners.
- Establish a mentor relationship with an outside partner(s) and learn the value of collaboration and expert resources within the field of sports product design.

Week 1: Overview of the Course's Theoretical Framework, Seminar Discussion Topics and Mentor Meeting

Discussion of the course syllabus, IRB review approval process and the sports product design capstone project goals for the term. Students will present their capstone project proposals from SPD 688 to the assigned class mentors and participate in a Q and A session, to dig deeper into the projects and align on goals to develop innovative sports design products and new knowledge in the field.

Readings and *Reading Responses:

Cagan and Vogel (2013), Chapter 4: The Core of a Successful Brand Strategy: Breakthrough Products and Services and Chapter 6: Integrating Disciplines and Managing Diverse Teams

*Reading Responses will be due at the beginning each week. Reading responses are 3 posed questions on 1 index card that will be used as part of the seminar discussion in class. They are handed in at the beginning of class.

Studio Assignment 1 - Commence Product Prototyping

For this assignment, with agreement from the course mentors, students will start to focus on product prototyping. Students will have about 2.5 weeks to work on prototypes, but will have check-ins each week to present progress with the class. Prototypes for this course need to be in a form that a user/athlete can test/validate them.

Studio Assignment 1 will be presented in rough prototype form, in front of the class to encourage discussion and ideation. It will be due at the beginning of Week 2. For this assignment, students should be about 30% finished with their prototype.

Week 2: Prototyping Approaches for Usability Testing

Seminar discussion of the readings, including critiques of each student's prototyping work. The critique for this week is halfway through the prototyping process and is without the mentor. Critiques in the field of product design are a collaborative process where the instructor provides feedback on the design work presented by the student and how it aligns to the theories (design, materials, science, research and business) used to approach the work and the brief. In weeks when the mentor is present, he/she will also provide feedback to the student. Successful critiques are where the student designer has a clear understanding of their next steps (things to improve upon) and the understanding of what is working well (things to continue/elaborate upon). Following the halfway prototyping critique, students will continue developing their sports product design prototype for the 1st course critique with mentor and usability testing.

Readings and Reading Responses:

Kelley and Littman (2001) Chapter 6: Prototyping is the Shorthand of Innovation

Laurel and Lunenfeld (2003) People - Overview of Quantitative Methods in Design Research

Studio Assignment 2 - Continue Product Prototyping and Preparation for User/Athlete Testing

For this assignment, students will continue to focus on their product prototyping. Prototypes for this course need to be in a form that a user/athlete can test/validate them. Students should also revisit their user validation plan created in SPD 688, to make sure it is still relevant and ready to implement.

Studio Assignment 2 will be presented in prototype form in front of the class, in a critique format. Student mentors will be present in person or over videoconference to provide feedback. It will be due at the beginning of Week 3.

Week 3: Prototyping Critique and User/Athlete Testing

Seminar discussion of the readings, including final critiques of each student's prototyping work. This critique will involve the assigned the mentors, so they can provide feedback, before the student commences user/athlete testing. Prototypes will be evaluated for their ability to address the brief, functionality/sport performance, aesthetics and ability to be tested by the user/athlete.

Readings and Reading Responses:

Milton and Rodgers (2013) Chapter 6: Testing and Chapter 7: Evaluation

Goodman, Kuniavsky and Moed (2012) Chapter 11: Usability Tests

Studio Assignment 3 - Complete Product Prototypes and Prepare for User/Athlete Testing

From the mentor comments, students will focus on completing product prototypes so they can be tested by the user/athlete. Testing protocols devised in SPD 688 will be conducted and data will be collected. Recommendations for product revisions/next steps should be provided for review with the mentor in Week 4.

Studio Assignment 3 will be presented digitally, in front of the class, in a critique format. It will be due at the beginning of Week 4.

Week 4: User/Athlete Testing Synthesis, Prototype Findings and Product Validation Critique

Seminar discussion of the readings, including reviews of each student's testing feedback. This week students will learn how to synthesize athlete/user usability testing data, in order to make recommendations for product prototyping revisions, so a final project can be made.

Readings and Reading Responses:

Sauro and Lewis (2012) Chapter 2: Quantifying User Research

Studio Assignment 4 - User/Athlete Testing Report and Prototype Revision Recommendations

For this assignment, students will focus on creating a user/athlete testing report that will be delivered to the mentor via email by the beginning of Week 5, for review and approval of next steps. The report should include a review of the user/athlete testing methodologies, documentation of the testing (including photos and video), summary of user/athlete testing results and product revision recommendations based upon the testing.

Week 5: Product Packaging and Branding Strategy

Seminar discussion of the readings, including overviews of packaging and branding design. This week students will learn how to create product packaging and a branding strategy for their new sports product design opportunity. Students will also receive mentor feedback on their recommendations for prototype revisions.

Readings and Reading Responses:

Cagan and Vogel (2013) Chapter 4: The Core of a Successful Brand Strategy: Breakthrough Products and Services

Studio Assignment 5 - Complete Final Product Prototype, Packaging Ideation and Brand Strategy

Once students hear back from their mentors, they should focus on the completion of their final sports product design model (to be finished for Week 10) and start the ideation of their product packaging and branding. For this assignment, students will sketch 100 packaging and branding concepts that they can share with their mentor, in person during Week 6's critique.

Week 6: Continue Product Concept Refinement and Critique (Concept Refinement and Packaging)

Seminar discussion of the readings and concept refinement mentor meetings. At the end of Week 6 students will meet with their mentor, to review their progress on concept refinement and to review sports product packaging and branding ideation.

Readings and Reading Responses:

Brown (2009) Chapter 6: Spreading the Message: The Importance of Storytelling

Studio Assignment 6 - Creating Your Product Story

Based upon mentor feedback from the critique, students will focus on finalizing their innovative sports product design prototype, packaging and branding design. This body of work will need to be completed for Week 10. In addition to this work, students will need to storyboard their sports product design “story.” Studio Assignment 6 (the storyboard) will be presented in a sketch form on boards, in a format that can be rearranged live as we work through details during class. It will be due at the beginning of Week 7.

Week 7: Storytelling Strategies in Product Design

Seminar discussion of the assigned readings, including the methods used to tell product stories. Students will focus on how to tell succinct stories in order to explain their new sports product design concepts clearly. Students will work with the storyboard they created in Studio Assignment 6 and collaboratively work with classmates to refine their stories, for the final project exhibit, video and presentation.

Readings and Reading Responses:

Block (2013) Chapter 1: The Visual Components, Chapter 3: Space and Chapter 9: Story and Visual Structure

Studio Assignment 7 - Video Storyboarding

Students will focus on creating a “video storyboard.” This studio assignment will be presented in a sketch form on boards, in a format that can be rearranged live as the class works through details during class. It will be due at the beginning of Week 8. Students will also continue to finalize their innovative sports product design model, packaging and branding design (to be finished for Week 10).

Week 8: Video Storytelling and Critique (Communication and Branding)

Seminar discussion of the assigned readings, including outlines of each student’s video storyboard. This week students will finalize the story that they can use to create video that supports their new sports product design opportunity. At the end of Week 8 students will meet with their mentor to show the accumulated work they have complete thus far in the course, for final feedback. This will be the last mentor review until the final capstone project presentation.

Readings and Reading Responses:

Norsig (2011) Chapter 2: The Perfect Storm and Chapter 5: Design

Studio Assignment 8 - Product Exhibit Design

Students will focus on storyboarding their sports product exhibit design. This studio assignment will be presented in a sketch form on boards, in a format that can be rearranged live as details are worked through during class. The story must show clearly how the work contributes new knowledge in the field of sports product design and how the design solves a specific sports product problem. It will be due at the beginning of Week 9. Students will also continue to finalize their innovative sports design product model, packaging and branding design (to be finished for Week 10).

Week 9: Product Exhibit Development through Pop-up Retail Approaches

Seminar discussion of the assigned readings and review of individual exhibit plans. From the ideation work done for Studio Assignment 8, students will refine and finalize their sports product design exhibit plans.

Studio Assignment 9 - Finalize Project Exhibit Design

For this assignment, students will focus to finalize their capstone project exhibit. Each exhibit needs to include the following content:

- Research proposal (from SPD 688)
- Sport product design prototypes
- User/athlete testing results
- Packaging/branding

Studio Assignment 9 will be presented in a space mock-up and digital form, at the beginning of Week 10 for class critique. After the critique, students will finalize their exhibit plans and start setting it up. Students will also continue to finalize their innovative sports design product model, packaging and branding design (to be finished for Week 10).

Week 10: Final Capstone Project Exhibit

At the end of Week 10, students will exhibit their new sports product design opportunity project in a gallery setting, for public viewing. The exhibit will include: the student's sports product design research proposal, sport product prototypes, user/athlete testing, feedback and packaging/branding and how the work contributes to new knowledge in the field of sports product design.

Finals Week: Final Capstone Project Presentation

Final class presentation and critique of each student's capstone project and how the work contributes to new knowledge in the field of sports product design. The project presentation will be due at the time scheduled for the final exam (there will be no final exam in the course).

Structure, Assignments and Student Engagement:

- Students are required to engage in class with their peers and instructor. Seminar discussions, analyses of products and assignment critiques will occur. Various methods of engagement will be available, including questions submitted prior to class, in-class questions, and being called on for one's thoughts.
- For weeks 1-8, students will be assigned readings where they will be required to produce a series of "reading responses" in reaction to the content read. Reading responses for this course are 3 questions that the student may have as they read the required assignment, or questions that may probe the content. The questions are turned into the instructor at the beginning of each class on one index card. The instructor will review these responses in class (on the same day) and use them as a platform for scholarly discussion/seminar and further explanation of the concepts presented.
- Studio assignments 1- 9 allow students to explore and understand the different elements needed to create a solid project design exhibit, including: sports product design prototypes, user/athlete product testing/validation and recommendations, product design refinement and product packaging/branding.
- For weeks 3,4, 6 and 8 students will have in-class critiques, where mentors will attend or videoconference in for feedback and advice.
- For the final project, students will create a capstone project exhibit and presentation, which will identify a unique sports product design opportunity and prove it is suitable for the user/athlete.

- Homework assignments are not accepted late. They must be submitted in person when class begins. Extensions of the due date will be considered only in extreme cases. In the case of illness, a written explanation by a doctor will be required.
- The studio nature of this course encourages making and innovation, along with weekly critiques where students will continue to refine their critical design thinking and presentation skills. Critiques in the field of product design are a collaborative process where the attendees involved provide feedback on the design work presented and how it aligns to the theories (design, materials, science, research and business) used to approach the work. Critiques in the academic environment also help students manage through the complex design process, to insure that their final solution solves the course goals, by providing a structured discussion around design methodologies and solution paths that may not have been considered by the student. Successful critiques are where the designer (student) has a clear understanding of their next steps (things to improve upon) and the understanding of what is working well (things to continue/elaborate upon).

Student Engagement Inventory: As a 9-credit graduate course, students are expected to spend a total of 360 hours for this course.

Educational Activity	Hours Student Engaged	Explanatory Comments
Course attendance	85	Classroom scheduled for 2hrs 50min/class x 3 times/week
Assigned readings	15	Assigned Textbooks
Project	160	Designed (by hand/computer) and physical prototypes of new sports apparel product concepts
Field work	30	Research/product validation with athletes. Mentor meetings
Lab work, experience	50	Physical making of concepts in the studio or Innovation Lab
Performance, creative activities	20	Product presentations and critiques
Total hours	360	

Documented Disabilities: Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the UO Accessible Education Center send a letter verifying the disability.

Academic Misconduct: You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct.

Plagiarism: Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas). If there is any question about whether an act constitutes

academic misconduct, it is the student's obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at <http://library.uoregon.edu/guides/plagiarism/students/index.html>

Inclusion Statement: The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website at <http://bias.uoregon.edu/index.html> or by phoning 541-346-2037.

Interviews, Research Compliance Services and Institutional Review Board Protocols: In general, student interaction with individuals that occurs for the purpose of fulfilling a single course requirement does not require Research Compliance Services (RCS) and Institutional Review Board (IRB) review and approval because it does not meet the definition of "human subjects research," as that term is defined in the federal regulations on research with human subjects. However, there are times when students do engage in "human subjects research" that requires IRB review and approval as part of fulfilling a course requirement. Whenever a student interacts with individuals (or individually identifiable data) with the intent of sharing findings beyond the classroom (e.g. in a paper, conference presentation, video, etc.) for the purpose of expanding a body of knowledge, the interaction could constitute human subjects research requiring IRB review and approval. If at any point you would like to use data for a publishable paper, a conference presentation, etc., or if you are unsure about whether or not you need IRB review and approval, you should contact the University of Oregon Research Compliance Services office.



September 4, 2015

Chris Van Metre
President
SCRA Applied R&D
315 Sigma Drive
Summerville, SC 29486

SUBJECT: University of Oregon Cost Share Commitment Letter for the Revolutionary Fibers and Textiles-Manufacturing Innovation Institute (W15QKN-15-R-0074)

Dear Mr. Van Metre:

The University of Oregon (UO) is pleased to be a member of the team proposing the creation and implementation of the Fibers and Textiles Revolution in response to the subject solicitation for the “Revolutionary Fibers and Textiles-Manufacturing Innovation Institute.” This program plays an important role in establishing a national focal point to develop and accelerate adoption of innovative next generation manufacturing technologies related to this important industrial ecosystem. This program is complementary to UO’s mission of fostering the next generation of transformational leaders and informed participants in the global community.

As Interim Vice President for Research at UO, I have the authority to make cost share commitments in support of this effort. As a result of participating in this program, should SCRA Applied R&D provide funding to UO at a minimum level of 1:1 (SCRA funds to UO funds), UO specifically, hereby commits a minimum of \$2,364,243 in cost sharing over the program’s 5-year period.

Item	Type	FY16	FY17	FY18	FY19	FY20	Alternate Source?
Tier 1 Cooperative Investment	Cash or in-Kind	\$534,503	\$443,156	\$452,665	\$461,366	\$472,553	N/A
TOTAL IN-KIND		\$534,503	\$443,156	\$452,665	\$461,366	\$472,553	N/A

The cost share amounts listed above are available to the program and restricted by UO and for use by the Fibers and Textiles-Manufacturing Innovation Institute scope of work and objectives. Please be advised \$2,364,243 of the cost share amount is project-specific and will be provided contingent upon the Revolutionary Fibers and Textiles-Manufacturing Innovation Institute’s selection and execution of a project(s) that align with UO’s expertise and/or objectives.



We look forward to working with SCRA Applied R&D and the Fibers and Textiles Revolution team through the Revolutionary Fibers and Textiles-Manufacturing Innovation Institute and with the Department of Defense as we transform U.S. manufacturing and increase the long-term competitiveness of American companies.

Sincerely,

Brad S. Shelton
Interim Vice President for Research
Office for Research and Innovation
Vice Provost Budget & Planning
Senior Vice President And Provost
203 Johnson Hall
1266 University of Oregon
Eugene OR 97403-1266
Phone: (541) 346-2090
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Internal Reference: EPCS# 23023

[National Network for Manufacturing Innovation \(NNMI\)](#)

The National Network for Manufacturing Innovation (NNMI) provides a manufacturing research infrastructure where U.S. industry and academia collaborate to solve industry-relevant problems. The NNMI is a network of Institutes for Manufacturing Innovation that each has a unique focus, but a common goal to create, showcase, and deploy new capabilities and new manufacturing processes.

- Key Objectives

NNMI consists of linked Institutes for Manufacturing Innovation (IMIs) with common goals, but unique concentrations. Here industry, academia, and government partners are leveraging existing resources, collaborating, and co-investing to nurture manufacturing innovation and accelerate commercialization. As sustainable manufacturing innovation hubs, the institutes will:

- Develop advanced manufacturing technologies that will "lift all ships," creating, showcasing and deploying new capabilities that can increase commercial productivity.
- Help businesses who otherwise couldn't invest in advanced manufacturing research, by bringing together the best talents and capabilities from the public and private sector into a proving ground for cutting-edge technology.
- Build a pipeline of talent that can support advanced manufacturing.

[Revolutionary Fibers and Textiles Manufacturing Innovation Institute \(RFT-MII\)](#)

On March 18, 2015, the President announced that \$75 million from the Department of Defense has committed to an Institute for Manufacturing Innovation competition in Revolutionary Fibers and Textiles. The Department launched a competition for leading manufacturers, universities, and non-profits to form a new manufacturing hub focused on revolutionary fibers and textiles technologies. This public-private partnership is expected to generate at least 1:1 cost-share from industry, bringing more than \$150 million in public and private investment funds.

The Revolutionary Fibers and Textiles Manufacturing Innovation Institute (RFT-MII) ensures that America leads in the manufacturing of new products from leading edge innovations in fiber science, commercializing fibers and textiles with extraordinary properties. Known as technical textiles, these modern day fabrics and fibers boast novel properties ranging from being incredibly lightweight and flame resistant, to having exceptional strength. Technical textiles have wide-ranging applications, from advancing capabilities of protective gear allowing fire fighters to battle the hottest flames, to ensuring that a wounded soldier is effectively treated with an antimicrobial compression bandage and returned safely. The RFT-MII serves as a public-private partnership between government, academia and industry to address the spectrum of manufacturing challenges associated with this technology, from design to end products. It is envisioned to support an end-to-end innovation 'ecosystem' in the U.S. for advanced fibers and textiles manufacturing and leverage domestic manufacturing facilities to develop and scale-up manufacturing processes.

This investment drives the application of smart textiles to not only revitalize the domestic textile supply chain, but also creates global export opportunities. After being the poster child for the last decade in U.S. manufacturing in the 2000s, the American textile industry is on the rebound, growing employment for the first time in two decades, increasing shipments by nearly a fifth since the recession, and winning globally with a 45% increase in exports since 2009. This announcement builds on this turnaround in American textile manufacturing and lays the foundation for future leadership in the production of sophisticated fibers and textile technologies. In addition to the March 18th release of a formal Notice of Intent, The Department of Defense announces this funding opportunity via a Funding Opportunity Announcement (FOA).

1. Key attributes of a successful MI Institute

A national focal point for supporting the translational activities that bridge the gap between breakthrough research and manufacturing:

- Long-term partnership between industry, suppliers and universities, enabled by government;
- A sustained focus on technology innovation with a strong brand identity and reputation;
- Ability to identify critical emerging technologies with transformational impact;
- Ability to form effective teams of industrial and academic experts from multiple disciplines to solve difficult problems and to educate students as members of such teams.
- Capacity to translate these technologies into products and businesses for the market;
- Sustainable business model based on commercial services & products

2. RFT-MII Funding Opportunity

Contracting Agency: US Army Armaments R,D & Engineering Center

Federal Funding (cooperative agreement): \$75 million over 5 years

Matching Funds Required: Minimum of 1:1 match; Typically ~ 2:1

Business Model: Industry-led Consortium Institute, Self sustaining by year 6

Mission: Enhance US economic competitiveness and defense capabilities through expanding US Fiber & Textile Industry competitive advantage in high-value technical textiles

Vision: Serve as a *national, industry-led institute* to address the spectrum of *manufacturing challenges associated with revolutionary fibers and textiles* from design to end products, supporting a U.S. end-to-end '*innovation ecosystem*' which leverages domestic manufacturing facilities to develop and scale-up manufacturing processes for *global competitiveness and defense supply mission*.

Federal Objective: Bring government, industry and academia together with the goal of organizing the current fragmented domestic capabilities in advanced fibers and textiles technology and better position the U.S. relative to global competition.

3. RFT-MII Premise & Scope

From the Notice of Intent:

- *Advances in fiber science have created fibers with extraordinary properties. Exceptional strength, flame resistance, electrical and other novel properties have revolutionized the fibers and textiles application space - hence the use of the term 'revolutionary.'*
- *Revolutionary fibers and textiles are a fast growing segment in the overall fiber and textile marketplace with a wide range of commercial and defense applications. They cover a range of fiber systems that are often known as technical textiles, composed of specialty fabrics, industrial fabrics, e-textiles, and advanced textiles.*
- *The RFT-MII will be structured to address both commercial and DoD applications with a focus on maturing technology from Manufacturing Readiness Level (MRL) 4 to 7.*
- *The RFT-MII will be expected to become "self-sustaining" after completion of the five years cooperative agreement.*

4. The RFT-MII FOA Provides Clear Priorities

- *Organize the currently fragmented U.S. industry capabilities into a coherent ecosystem capable of enabling pilot-scale prototyping of fibers and textiles cost-effectively, independent of economy-of-scale, and where a mass customizable product or rapid outfitting of a small unit/mission/requirement can be made*
- *Foster integrated use of design tools and collaborative infrastructure supported by a domestic supply chain that is configurable, responsive, and affordable.*
- *Provide DOD the ability to react quickly to new requirements, using an integrated approach of design and manufacturing, for more tailorable and affordable solutions"*

5. The FOA Announcement

- *The Institute will provide an unprecedented capability to rapidly and flexibly produce end-item prototypes based on the use of validated computational design tools, a robust knowledge management system, and working within a collaborative infrastructure.*
- *These design tools and pilot manufacturing capabilities will be integrated to support manufacturing process improvements, maintain a community repository of design and performance data, and validation testing to improve current and develop new industry standards.*
- *The RFT-MII public-private partnership will be used to train a new workforce through educational outreach programs as well as workforce training and re-training to enable this new manufacturing sector of the U.S. economy.*

6. Key Aspects of Our MII Concept

REGIONALLY ALIGNED HUB: Create a sustainable regional hub with national reach of advanced fiber and textile manufacturing excellence that spans industrial, academic, and government entities with industry-led prioritization and major, enduring financial commitment from partners.

ADVANCED MANUFACTURING: Hub and node system of facilities and capabilities to support advanced fiber, textile & garment manufacturing prototyping and process maturation

DEDICATED STATE-OF-THE-ART FACILITIES FOR PROTOTYPE DESIGN & PROCESS MATURATION: Full access to an integrated set of advanced prototyping and manufacturing development facilities to support collaborative (pre-competitive) and proprietary consortium projects that overcome critical technological and manufacturing challenges in technical textile fibers and textiles manufacturing

INTEGRATED PROJECT TEAMS: Joint industry-academia-government project teams with industry leads to direct and manage collaborative research efforts broadly valuable to multiple commercial and defense applications.

ACCESS TO FULL RANGE OF REQUIRED COMPETENCIES: Core staff with proven experience in all aspects of collaborative development of integrated electronic and photonic design and manufacturing processes

EDUCATE WORKFORCE: Engage academic institutions and vocational entities to educate and train workers in advanced textile manufacturing, accelerating the development of an adaptive and skilled photonics workforce, capable of meeting industry needs.

INCUBATE START-UPS: Assist early-stage companies for next generation fiber & textile equipment and processes to develop into financially stable, high-growth enterprises by providing the tools, training, and infrastructure

7. FTR builds the RFT-MII upon best-in-class assets

Southeastern US regionally aligned industry consortium operated as a industry membership organization Initiated by four world class research universities and managed by a well-respected 501(c)3 with a distinguished history of manufacturing technology programs

SCRA serving as prime not-for-profit brings experience of three successful MII teams

The RFT-MII will employ a hub & node system to link best-in-class capabilities to serve the industry



★ Hub facility to provide prototyping / limited run manufacturing capabilities

★ University based IMCs builds on existing capabilities base

★ Access to member company resources on a non-interference basis

Innovation Manufacturing Centers (IMC) located at the core universities augment and support research projects

- NC State: *nonwovens, protective clothing, apparel design*
- Georgia Tech: *Manufacturing automation, advanced materials, smart textiles, wearables*
- UMass Lowell: *human performance systems, green chemistry*
- Univ. of Oregon: *sustainable supply chains, active sportswear, embedded sensors*

8. Expected Outcomes

- Solidify market and technical leadership in Technical Textiles
- Sustainable innovation ecosystem to maintain leadership throughout the 21st Century
- Reinvigorated, flexible and responsive supply chain to address ever changing market dynamics and cost pressures
- Establishment of rapid prototype capability to shorten time to market
- Retrained workforce
- Establishment of industry roadmaps across multiple technology sectors
- Repository for intellectual exchange / information and branded thought leadership
- Competitive technology portfolio across fibers, textile and applications through breakthrough innovations

Core Team

Institution	Key Facilities Access	Technology Strengths	Role in RFT-IMI
South Carolina Research Authority (SCRA)	Prototype manufacturing facilities, DCAA audited finance and management systems	Manufacturing Technology management, DOD man tech lead, prototype facility	Consortium Manager, Contracts, IP management, DOD liaison
Georgia Institute of Technology	Fiber Spinning and Carbonization labs in class 1000 cleanrooms; Automated Sewing Lab; Technical Textiles-based Wearable Sensor Systems Lab; IMAT materials provenance materials and coatings chemistry lab; ITAR-compliant DOD prototype facility	Advanced Materials; Technical Textiles and Wearable Systems; Manufacturing Automation Technologies: Sewing, Digital Printing, Surface Coating, Materials Characterization and Reliability Testing; Knowledge Management, Modeling and Product Data Standardization	Key resource for high performance solution spun multifunctional fibers; technical textile-based wearable systems including systems integration; automated sewing; digital printing; knowledge management.
North Carolina State University	Complete model manufacturing facilities from fiber to fabric and testing Extensive facilities for fiber spinning, and production of micro and nanofibers, coating and lamination	Fiber & polymer science, textiles, nonwovens, testing and analysis, apparel design and manufacturing and product development; digital printing, color chemistry; surface modification; medical textiles; molecular modeling; battery & solar energy; sustainability	Key resource for multi-functional multi-component fibers, yarn and fabric prototyping, coloration, and finishing, digital printing and 3D fabric prototyping. and the key resource for product development, system research and integration
University of Massachusetts – Lowell	HEROES initiative with NSRDEC; Adv. Composites & Textile Research Lab, Baseball Research Lab, Toxics Use Reduction Institute, NSF Center for High-rate Nanomanufacturing;	Advanced materials, compounding (additives), textile characterization and modeling, signature management, airdrop, sustainable materials and processes	Advanced uniform & equipment designs and soldier equipment
University of Oregon	Sports Product Institute with 2 innovation Labs. Lab 1 - product innovation, design, sustainability, and prototyping. Lab 2 -consumer behavior, and retail marketing	Green Chemistry, Product Design, Adaptive Athlete Design, Human Performance Testing, Sports Product Industry education and research. Product Life cycle analysis, entrepreneurship, sustainability in business development.	Product Design, marketing and commercialization of sports products. Access to sports product industry and sports technology companies based in Oregon. West Coast liaison with affiliate universities and companies

9. Key contacts

- Marty Ryan, SCRA marty.ryan@scra.org
- George White, GT, george.white@gatech.edu
- Sundaresan Jayaraman, Sundaresan.Jayaraman@gatech.edu
- Pradip Pramanik, ppraman@ncsu.edu
- Behnam Pourdeyhimi, NC State bpourdey@ncsu.edu
- Ellen Schmidt-Devlin, Univ. of Oregon ellens@uoregon.edu
- Julie Chen, UMass-Lowell, Julie_Chen@uml.edu



THE FIBERS & TEXTILES REVOLUTION PROJECT

FIBERS & TEXTILES MANUFACTURING INNOVATION PROPOSAL

THE OPPORTUNITY

\$150 million over five years to start a U.S.-based Fibers & Textiles Manufacturing Innovation Initiative

THE BASICS

The federal government is running a winner-take-all competition for \$75 million in federal funds. This will be matched by \$75 million in corporate and state government funds for a total of \$150 million. Over five years the initiative will create a sustainable applied research, development, and educational enterprise that will revolutionize high-performance fibers, textiles, apparel, footwear, and outdoor equipment for the military and consumer goods markets.

JOIN US

The University of Oregon, Georgia Tech, UMass-Lowell, and North Carolina State have teamed together to submit a proposal that will be tough to beat. Corporate and state partners will complement the commitment to innovation, sustainability, and research of these four powerhouses universities.

Be part of the future of fibers and textiles innovation by joining the core team. Contact us to learn more.

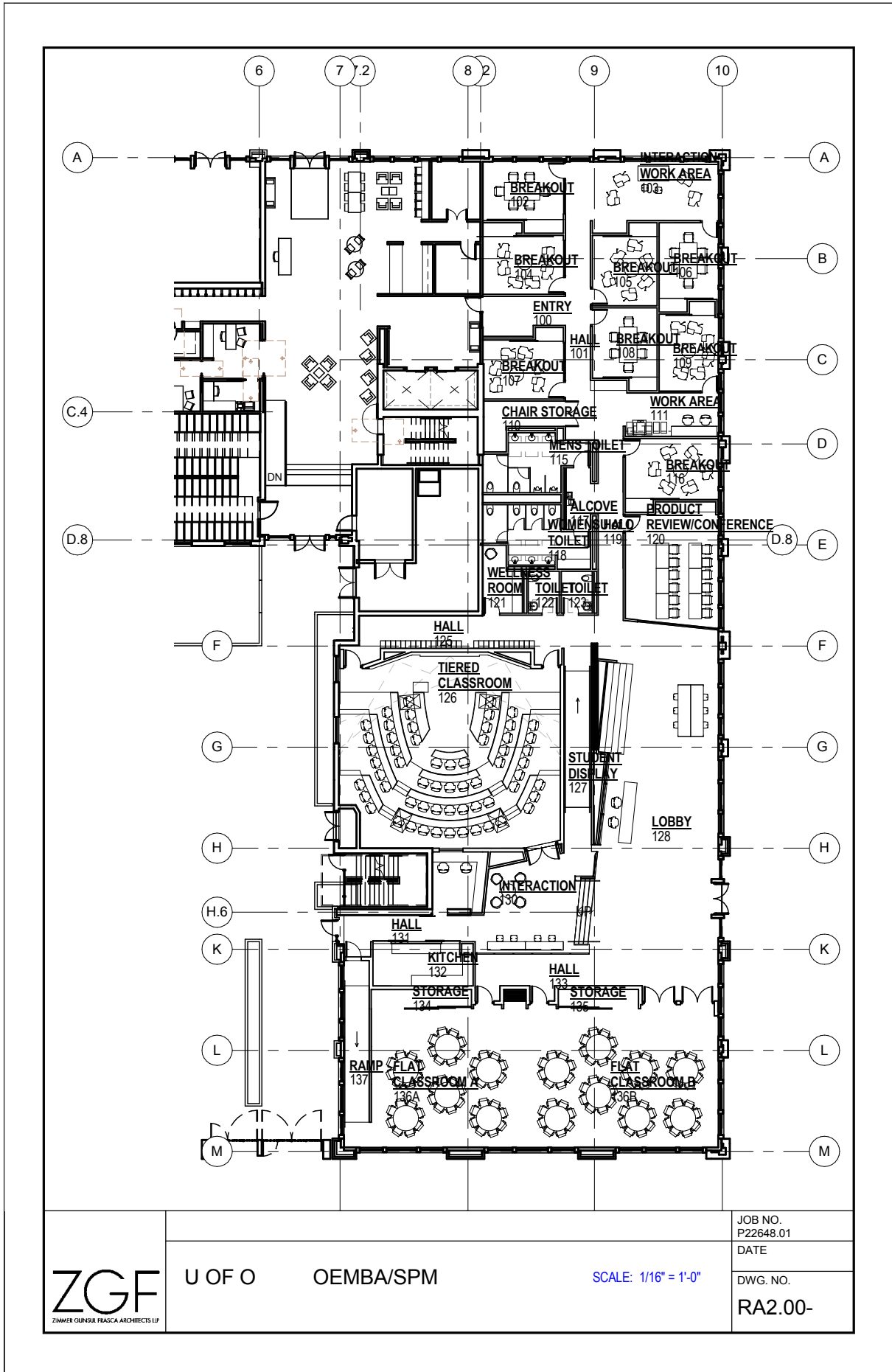
CONTACT US

Marty Ryan
marty.ryan@scra.org



Architectural plan for the new building on Couch st. and Naito PKWY

- This new building will offer additional classrooms and presentation space in addition to the space at the White Stag building and the Innovation Lab for SPM and SPD



ZGF
ZAMMER GUNSEL FRASCA ARCHITECTS LLP

U OF O OEMBA/SPM

SCALE: 1/16" = 1'-0"

JOB NO.
P22648.01
DATE
DWG. NO.
RA2.00-

Report Guidelines

MS Sports Product Design (SportsPD)

Professor Clark E. Lundell, Head School of Industrial and Graphic Design, Auburn University

23 February 2015

Barry M. Katz, Professor, Industrial and Interaction Design, California College of the Arts;
Consulting Professor, Design Group, Dept. Mechanical Engineering, Stanford University

Lorraine Justice, Dean, College of Imaging Arts and Sciences, Rochester Institute of Technology.

(comments in the form: Clark: black. [Barry: square brackets and dark blue type]. Lorraine in Pink)

The panel is asked to assess the program within the present and projected future contexts, addressing program elements, faculty, need, and resources.

1. Program

a. **The program objectives and requirements; the mechanisms for program administration and assessment.**

65 quarter hour credits (2 years) based on 40 quarter hour (1 year) NASAD requirement? 9-13 credits per quarter. Summer internship required.

Undergraduate degree in product design required for admission? Other design fields (art, architecture, business, etc.) that would be suitable for direct admission? Will this statement taken from the PDMasters proposal be applicable to the SportsPD program?:

“Students will have had experience working professionally in a design related field, or hold a bachelors degree in product/industrial design.”

Who serves as the SportsPD curriculum administrator? Is there a SportsPD curriculum chair under the existing PD program director? Are all faculty assigned to the SportsPD program located in Portland?

b. **The program's alignment with the institution's mission and strategic objectives.**

What are the specific institutional mission statements and/or strategic objective (priority) statements that the SportsPD program addresses?

The SportsPD program relates overall to the University of Oregon’s statement to “work at a human scale to generate big ideas”. This unique degree will help to generate big ideas when the proposed design curriculum meets research activities through sports product design. The University of Oregon is also dedicated to educating the “whole person”. The SportsPD will help to “enhance the social, cultural, physical, and economic wellbeing of our students” on a broad basis as more interdisciplinary design projects take place on campus.

c. **The depth and breadth of coverage in terms of faculty availability and expertise, regular course offerings and directed study, and access to and use of support resources within and external to the institution.**

With the addition of two new tenure track (SportsPD dedicated?) positions I am not sure how you maintain a 10 to 1, student / faculty ratio in the new SportsPD program which is planned to ultimately enroll 40 students. Unless the existing PD program is under enrolled, I do not see how existing faculty can be utilized to support both the existing PD program and the new SportsPD program in order to achieve the desired 10 to 1 student / faculty ratio in the SportsPD program.

The suggested electives have a good depth and breadth to help students round out their creative problem solving skills as well as management knowledge.

- d. **The relationship of this program to undergraduate and other graduate programs at the institution and other institutions in the state, if appropriate. Consider collaborative arrangements, partnerships, interdisciplinary programs, service functions, joint research projects, support programs, etc.**

It is not clear what the undergraduate degree requirements are in order to qualify for admission the SportsPD graduate program. Beyond this point it appears that UO provides and the SportsPD program will take advantage of other resources in the Portland metropolitan area with a focus in the sports design industry.

- e. **The justification in terms of state needs, demand, access, and cost effectiveness (if this program represents duplication within the state).**

The rationale presented makes sense and the program does not duplicate existing programs within the state, region or nationally.

The Sports PD program is so unique that it would be one of a few in the world. It would bring great visibility to the need to design better sports equipment and apparel that is safe and sustainable.

- f. **The probable impact of the program on the department or academic unit, as well as its effect on current programs.**

See item c. above.

- g. **The program's major strengths and weaknesses.**

Strengths: The ability to locate this program at the White Stag facility provides a rare opportunity to access the unique concentration (on a national level) of sports product industry partners in and around the city of Portland.

Weakness: It appears that the SportsPD model proposed may become too dependent on the resources associated with the existing PD program.

[BK: I agree that each of these points (1a-g) could benefit from further clarification. I am inclined to emphasize the strengths of the proposal, in particular in regard to the promise of a robust industry-university relationship and the uniquely interdisciplinary approach to sports product design it offers.]

2. Faculty

- a. **The quality of the faculty in terms of training, experience, research, scholarly contributions, ability to generate external support, stature in the field, and qualifications to serve as graduate faculty.**

The location of the program in Portland allows it to readily draw upon the vital professional SportsPD community at this location, gain visibility in the industry and stature in the field.

[BK: It would be helpful to know more about the professional affiliations of the Adjunct faculty in particular, as they will be crucial to the success of the proposed program.]

b. The faculty in terms of size, qualifications for area(s) of specialization offered, and the student body served. Include analysis of program sustainability in light of such factors as upcoming retirements, etc.

The number of university supported faculty available to provide principle contribution to this program, should it grow at the proposed level, is of some concern even given the two new TT appointments. Additional faculty positions may need to be assigned to this unit in the future if anticipated growth is achieved.

c. Areas of faculty strength and weakness.

Strength: Appropriate location and facility resources for the launch of this new SportsPD program.

Weakness: Anticipated growth could place strain on the existing PD resources even taking into account the two new faculty positions.

d. Faculty workload, including availability for student advising, research oversight, mentoring, and teaching effectiveness.

These are issues of concern particularly in light of the proposed student / faculty ratio and long list of nine newly developed courses to be offered.

e. The credentials, involvement of, and reliance upon support faculty from other departments within the institutions, from other institutions, and/or adjunct faculty.

The program location and plan appear to take full advantage of university and community resources. It is not clear how readily students in this program can access, or if there is a need to access, the resources (faculty and facility) of the Lundquist College of Business, the Warsaw Sports Marketing Center and the Bowerman Laboratory.

It is important that the individuals on the team chosen to lead this degree are openly supportive of all the disciplines involved, recognizing inherent strengths and potential weaknesses in the creative problem solving process that is used to create new products.

One assumes that all the UO varsity sports programs are centered in Eugene and would be a useful resource for sports related existing and proposed new product research and evaluation. How do the students in Portland access this resource?

[BK: good point.]

3. Need

a. The evidence that there is significant demand for this program.

A credible case is made for the need of this program. Actual demand is yet to be determined.

[BK: Agreed, but if the program is successful it will likely stimulate further demand.]

The University of Oregon should give this program the proper recruiting activities and a few years to have the program mature. Once successful, this program would serve as a model for similar programs in other parts of the country.

b. The evidence of sufficient and relevant employment opportunities for graduates of this program.

The program's scope and location appear to reflect the focus and needs of the surrounding SportsPD industry.

I believe these students will be in great demand, first nationally and then internationally. As the design field gathers more ergonomic data on the human form from around the world for product design, sports design programs will grow.

c. The overall need for the program within the institution, the Oregon University System, state and/or region, and nation.

The need appears well justified by the adjacent high concentration of SportsPD industries in an around Portland and the region. The SportsPD program is appropriate to the demands of the national, regional, and state economies it is attempting to serve.

[BK: I am in complete agreement; I would state this even more emphatically.]

Yes, brilliant move.

4. Resources

a. The adequacy of library, computer, laboratory, and other research facilities and equipment; offices; classrooms; support services for the program; and, if relevant, the program's utilization of resources outside the institution (e.g., field sites, laboratories, museums, libraries, and cooperative arrangements with other institutions).

The program location appears well considered in regards to the SportsPD industry resource support and access available within the adjacent community.

b. The proposed budget and any need for new resources to operate the program effectively. Where appropriate, review resources available to support graduate students (e.g., fellowships and other scholarships, teaching and research assistantships).

It appears that a program is in place to provide scholarship support to deserving students through an endowment provided by the Sports Product Institute. The SportsPD curriculum requires one summer quarter of related internship experience between the 1st and 2nd years and generation of a report on this experience as part of the SPD 607 course. Will there be administrative resources available to place students in these summer positions?

c. In terms of national standards, the institution's commitment to the program as demonstrated by the number of faculty relative to workload and student numbers, support for faculty by

nonacademic personnel (e.g., support, staff, technicians), financial support for students, and funds for faculty research and professional activities (e.g., conferences, visiting lectures).

See item 1C above.

d. Institution leaders' commitment to this program in the long term.

The area of sports has been supported for many years at the University of Oregon through many activities and programs. The proposed sports program is designed to be an intensive, world-class experience with substantial incremental funding from the Sports Product Institute endowment. This endowment will provide scholarships so that talented students may attend with less impact of tuition costs.

e. The institution's ability to sustain the program in the foreseeable future along with its current and future projected commitments.

This project is currently a highly ranked priority for both LCB and AAA in the upcoming campaign. Sport has been a strategic academic focus of the University of Oregon for many years. The Warsaw Sports Marketing Center was the first such center in any business school. The Law School has used sport as a matter of conflict resolution and is opening a Sports Law Institute this summer. Human Physiology works closely with athletes in its Bowerman Laboratory.

This program will significantly enhance economic development in the state, a strategic objective of the University.

file: DIGD/UOReportSports2.15

[BK: Additional comments

1. The concentration of sports companies in the Portland region—including some of the largest and most important in the world—make this proposal timely if not overdue. SportsPD at UO has the potential to become the uncontested leader in this field nationwide, and to create an industry-university reciprocity in something like the manner in which Stanford and Silicon Valley, ArtCenter and the automotive industry, the NYU and media exist in a mutually-reinforcing network of talent and opportunity.
2. The real promise of the proposed program lies in the active collaboration among design, business, engineering, and potentially the behavioral sciences.

[CL: Additional comments

Regarding the undergraduate PD program (Eugene and Portland)

The quality of effort and outcome emerging from the undergraduate PD program is at a very high level, in spite of the resource limitations. It is the success of this program that has provided the foundation upon which the two newly proposed graduate programs will be built. The two new programs should be structured in such a way as to not jeopardize the continued health and success of the undergraduate PD curricula.

Regarding the SPD Masters (Portland)

The scale of the degree launch is too aggressive, particularly on the product design side. I feel the ultimate product design enrollment needs to be cut in half so the Portland based program does not become the determining factor in allocating resources across the total PD program (the tail in Portland wagging the dog in Eugene).

- Response to External Review -

Masters of Science in Sports Product Design – Graduate Program Proposal

Sponsoring program: Product Design Program, AAA, University of Oregon

The text below is the Product Design's Curriculum Committee's response to the direct points fielded by the external review committee (3/13/15). Please reference the external review committee's report for additional details or original points of concern.

Admission requirements – more clarification:

Additional clarification was added to the program proposal (see below):

We expect that one quarter of the students will be domestic residents, one quarter will be international and one half will be domestic nonresidents. This is a full time graduate program and thus students will only be successful participants if they are matriculated for the full two years. As this is a professionally focused master's degree, it is expected that the majority of students will have had experience working professionally in a design field, or hold a bachelor's degree in product / industrial design or a related field (e.g., engineering, apparel). This MS in Sports Product Design will allow existing designers to shift direction and focus on a sports specialization or individuals working in the sports product industry who want to pursue a masters degree in Sports Product Design.

Teaching resources and SPD program administrator – more clarification on this role:

Additional clarification was added to the program proposal (see below):

The new SPD faculty, Dr. Susan Sokolowski will act as the Director of Graduate studies. The new SPD TTF hire will be the Grad coordinator (starting fall '17). In addition to the two TT faculty based in SPD in Portland, the PD program will send a TT Faculty or Tenured Faculty from Eugene to SPD in Portland, The Eugene faculty will rotate through either a term-by-term or yearly basis. In the past, the PD Program has supported a TT faculty from Eugene to teach in Portland when the Product Design Program's BFA program started in 2009. It is common practice in A&AA to send rotating faculty from Eugene to positions in the Portland campus. Examples are the BFA program in Digital Arts from the Department of Art and the graduate program in the Architecture Department.

Admission Files and queries will be processed by the Product Design Office Staff in Eugene. The product design program will look at admissions as a faculty of the whole including Eugene and SPD faculty. And there are existing A&AA Administrative Team, A&AA Portland Administrative Staff, and Sports Product Initiative (SPI) staff at the University of Oregon's Portland Campus.

All SPD faculty will be positioned at the University of Oregon's Portland campus. In support of the strategy, operations, and overall management of the new program, Dr. Sokolowski will have an administrative role in the SPI in addition to teaching assignments. For this role, Dr. Sokolowski will have 2 course reduction, and will teach 3 course teaching load per year.

Faculty to student ratio – more clarification:

Additional clarification was added to the program proposal (see below):

The student to faculty ratio has been updated to 13 to 1. To meet this number in addition to the two tenure track SPD faculty one faculty member from Eugene will rotate through the Portland campus on an annual or term basis. There will be seven new course offerings per year under the SPD subject code, including 6 studio course. Each studio course will be taught by two faculty, combination of TTF and/or Adjunct Faculty. We hired an additional TT faculty in 2015. The new hiring of a new TT SPD faculty in 2017 will help carry this increased offering. Last year, PD program hired 4 new TTF faculty including one SPD TT faculty. Please see undergraduate, SPD course and Master of Design course (anticipated starting fall 2017) offerings with chart that illustrate faculty teaching load.

Expanding programs into graduate studies and impact on resources – more clarification:

The White Stag building resources are currently being expanded to accommodate two new programs – Sports Product Management and Sports Product Design. The first lab improvement has been already realized in the form of the White Stag 'Innovation Lab'. Innovation Lab is a new maker's space located adjacent to the White Stag building. The Lab is designed for prototyping and construction of new product concepts ideas in the sports product realm. The lab includes specialty production equipment such as a single stitch, cover stitch, active seam flat stitch, post stitch, and serger, a strobel, a rapid prototyping machine in fused deposition modeling machine, commonly known as '3-D (dimensional) printer' and a heat press, for footwear, garments and sports products.

The 'Fabrication lab' in the basement of White Stag building will be used as an additional prototyping space. The 'Fabrication lab' is equipped with Laser-cuter, another high volume rapid prototyping machine in fused deposition modeling machine, commonly known as '3-D (dimensional) printer', Computer numerical control milled machine, basic workshop machinery.

The SPM program has developed a new innovation retail lab to test new product concepts, and allow students to learn merchandising skills, inventory management, customer service, consumer insights, etc. Classroom and library space are currently available at White Stag. Portland White stag campus has a A&AA library. The Product Design Program supports \$3,000 per year for the library. We have budgeted additional \$5,000 for the library resources. Please see the budget outline form.

Additional space will be leased in a new building currently being constructed with a site location directly north and across the street from White Stag.

We expect no significant impact on faculty teaching resources for the PD program in Eugene. In 2015 the PD program hired 4 TT faculty, 3 for Eugene and 1 for the SPD program in Portland. The PD program will open a search for a new TT SPD faculty position in 2017, to start in the Fall 2017. This new faculty member will help carry the increased offerings for SPD program.

***Wonhee Arndt
Chair - Curriculum Committee
Product Design Program***

CURRICULUM VITAE

Clark E. Lundell, IDSA, AIA
Professor and Head
207 Wallace Hall

(334) 844-2369; lundece@auburn.edu
School of Industrial and Graphic Design (SIGD)
Auburn University (AU), Alabama 36849

Professional Affiliations:

Member, Industrial Designers Society of America (IDSA)	1990-15
Chair, IDSA/NASAD Task Force	1996
Member, IDSA Board of Directors, Executive Board	1995
Member, National Association of Schools of Art and Design (NASAD)	1992-15
Accreditation Evaluator	1993-15
Accreditation Commission	1998-03
Member, American Institute of Architects (AIA)	1978-15
Advisor, Intern Development Program	1987-03
President, Alabama Council AIA	1990
Member, Alabama Architectural Foundation (AAF)	1992-04
Member, National Council of Architectural Registration Boards (NCARB)	1978-05
Architectural Registration Examination Administrator	1984-88
Registered Architect, Alabama	1978-15

Academic Affiliations and Appointments:

Head, School of Industrial Design and Graphic Design	1991-15
Industrial Design Undergraduate Program	
Industrial Design Graduate Program	
Post Baccalaureate Program	
Graphic Design Undergraduate Program	
National Association of Schools of Art and Design Accreditation (Auburn)	2015
Graduate Landscape Architecture Thesis Committee, University of Georgia	2015
Curriculum Review / Site Visit, University of Oregon (Eugene, Portland)	2015
International Exhibition / Conference on Higher Education, Riyadh, Saudi Arabia	2014-15
NASAD Accreditation Team, Columbus College of Art	2011
Co-Founder/Director, AU Human Odyssey Program, Italy/Europe	2005-11
Co-Founder/Director, AU / University of Georgia (UGA) Environment Seminar	2006-09
Coordinator, 10 th Anniversary, AU/INDD Ireland Program	2006
Coordinator, Collaboration Agreement, Shu-Te University, Taiwan	2006
Co-Director, UGA Landscape / AU Industrial Design, Costa Rica Program	2005
Member, Commission on Accreditation, United Arab Emirates	
American University at Sharjha	2001
Sharjha University	2004
Interim Head, School of Architecture, Auburn University	1989 and 1996
Architecture Program	
Landscape Architecture Program (Interim Chair, 1999)	
Interior Design Program	
Community Planning Graduate Program	

Founding Member Tau Sigma Delta, Alpha Theta Chapter and Faculty Advisor 1978-2015

Honors and Awards:

Auburn University, Algernon Sydney Sullivan Award	2015
Architecture, Design and Construction, College of Fellows	2011
Department of Industrial and Graphic Design, 20 Year Service Award	2010
Design Intelligence Survey, Schools of Design, Top 25 Most Admired Educator	2009
Shu-Te University, Taiwan, International Design Education Exchange Award	2005
General Electric Home Products, Design Excellence Award	2001
Auburn University Human Odyssey Program / Service Awards	2001 and 2009
U. S. Department of Energy (DOE), Design Excellence Award	2000
National Aeronautics and Space Administration, Design Excellence Award	1999
American Institute of Architects, Award of Excellence	1987
Honorary Professorship, Hunan University, Changsha, PRC	1986

Papers and Presentations, etc.:

Auburn Department of Industrial and Graphic Design, DesignNotes Author / Editor / Photographer	2006-15
ITALIA, University of Georgia/ Auburn University Architectural Travel Sketches and Photos, Italy	2010
Auburn University Faculty Show, Dudley Gallery Architectural Travel Sketches and Photos, Rome / Florence	2008
University of Georgia / Auburn University Collaboration Co-Editor, Man, Machine and the Environment Seminar, Reader	2008
Alabama Academy of Science Author/Presenter "Design Serves the Challenges of the Age"	2015
Special Session Coordinator "User Experience"	2014
Author/Presenter "A Technocentric Culture"	2013
Author/Presenter "Revolution"	2012
Co-Author, Presenter, "Science as Myth"	2011
Co-Author, "Science as 21 st Century Mythology"	2008
Lawrence King Publishing, London, Book Reviews "Product Design", "Product Design Uncovered"	2006-07
Human Odyssey Text Book Co-Editor, Reading Compilation for Human Odyssey Abroad, Italy	2007-10
Event Design Symposium, NY, NY "Event Horizon, a2D2r"	2006
Auburn University, Human Odyssey Program "Auburn University Campus as the Roman Forum"	2010-15
"Origin of the Basilica"	2000-08
AU, Dudley Hall Commons, CADC Dean's Conference Room, Exhibition "UGA / AU Costa Rica Collaboration"	2006
College of Environment and Design, University of Georgia, Guest Lecturer "UGA / AU Costa Rica Study Program"	2005
"Boundaries of a Technocentric Culture, the New Aesthetic"	2004
UGA, Caldwell Hall, Circle Gallery, Exhibition "UGA / AU Costa Rica Collaboration"	2005

National College of Art and Design, Dublin, Ireland “Design / Marketing Team Strategies”	2002
Hunan University, Changsha, Hunan Province, PRC Various Presentations to Design/Architectural Professional Organizations	1986

Education:

Master of Architecture, Texas A & M University	1977
Bachelor of Environmental Design, Texas A & M University	1971
General Studies, University of Colorado, Boulder, Colorado	1970
Orange County Community College, Middletown, NY	1969

Professional / Research Experience:

Founding Director AU/ SIGD Industry Collaboration Program	1991-15
Clark Lundell, Architect, Auburn, AL	1977-15
Bayan Jeddah College, Saudi Arabia. Curriculum Development	2014
Auburn Oaks Project Development	2014
Assistive Technology Program Support	2012-14
Smithsonian Institution-Tolerance Project	2012
Rural Health Initiative (Pepsi-refresheverything.com) Grant	2010
Teenage Oral Health Care, Johnson & Johnson, Principle Investigator	2009
North American Forest Products, Principle Investigator	2008
Georgia Pacific, Principle Investigator	2006
U.S. Department of Energy, Principle Investigator	1999-01

Military Service:

United State Navy, Service aboard the USS Coral Sea, Viet Nam	1964-68
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CURRICULUM VITAE: BARRY MARTIN KATZ

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U.S. Citizen

EDUCATION

Doctor of Philosophy, 1980
University of California at Santa Cruz
History of Consciousness and History*
dissertation: "Praxis and Poiesis: An Intellectual Biography of Herbert Marcuse"
supervisors: Professors Hayden White, N.O. Brown, and Martin Jay (UC Berkeley)

Master of Science (econ.), 1972
London School of Economics
Faculty of Political Sociology
thesis: "Jürgen Habermas and the Legacy of the Frankfurt School"
supervisor: Professor Ralph Miliband

Bachelor of Arts (First Class Honors), 1971
McGill University, Montréal, Québec
major fields: Political Science and Sociology
supervisor: Professor Charles Taylor

RESEARCH AND TEACHING INTERESTS

history and philosophy of design
history of science and technology
visual and material culture studies
cultural and intellectual history

LANGUAGES

French, German
intermediate Italian and Spanish

* The Board of Studies in the History of Consciousness is an interdisciplinary doctoral program that draws upon distinguished faculty from the University of California and other institutions. Students may work concurrently in one of the traditional disciplines.

ACADEMIC POSITIONS

Professor, California College of the Arts
Departments of Industrial Design and Interaction Design
Division of Graduate Studies
1995 - 2015

Consulting Professor, Stanford University
Design Group, Department of Mechanical Engineering
1995 - 2015

Associate Professor, California College of the Arts
Division of Humanities & Sciences
Department of Industrial Design
1993 - 1995

Senior Lecturer, Stanford University
Program in Science, Technology, and Society
Design Division, Department of Mechanical Engineering
1988-1993

Lecturer, Stanford University
Program in Science, Technology, and Society
1980-1988

AWARDS AND HONORS

Publication award, Design History Society (2015)
Webby honoree, best copy/writing, IDEO *Patterns* (2010)
Executive Fellow, University of Tokyo i[nnovation]-School (2009)
IF (*International Forum*) Communication Design Award, with IDEO Munich (2006).
CCA Faculty Development Grant (2006).
Graham Foundation (with Tim Culvahouse, *et al.*), research and publication grant (2002).
IDEO Fellow, IDEO Product Development, Palo Alto (1997-).
w/PostTool Design: Silver Award, *I.D. Magazine* Interactive Design Review (1999).
National Endowment for the Humanities, research grant #FT-40233 (1994).
Lyman Prize for university service, Stanford Alumni Association (1992).
Bing Teaching Initiative, teaching innovation grant, Stanford University (1992-93).
National Endowment for the Humanities, research grant #FE-27600-92 (1992).
Outstanding Teacher Award, Associated Students of Stanford University (1991).
Fellow, Stanford Humanities Center, 1990-91 (declined).
Dean's Innovation Fund, course development grant, Stanford University (1990).
Hite Foundation and Stanford University, graduate course development grant (1989).
Sloan Foundation and Stanford University, research associateship (1985-86).
Pew Memorial Trust and Stanford University, research associateship (1984-85).
University of California Patent Fund for Graduate Research, fellowship (1980).
Deutscher akademischer Austauschdienst, summer language grant (1974).
Council for European Studies, pre-dissertation research fellowship (1974).

ADMINISTRATION AND UNIVERSITY SERVICE

at the California College of the Arts (partial list):

Search Committee, Assistant Professor of Interaction Design (2013).
Search Committee, Asst.Prof., Critical Studies (2011).
Search Committee: Chair, Industrial Design (2009).
Search Committee, College President (2007-08).
President, CCA Faculty Senate and Chair of Executive Committee (2006-08).
Chair, Graduate Program in Visual Criticism (2005-06).
Chair, Committee on Appointments, Promotion, and Tenure (2002-06).
Accreditation Coordinating Committee
Chair, Search Committee, Chair of Industrial Design (2004-05).
Search Committee, Asst. Prof., Contemporary Art History (2003-).
Search Committee, Asst. Prof. of Photography (2002).
Advisory Committee, Center for Art and Public Life (2000-2001).
Search Committee, History and Theory of Graphic Design (1999-2000).
Search Committee, History of World Cultures (1999-2000).
Chair, pre-accreditation review of Fashion Design Department (1998).
Executive Committee, CCA Faculty Senate (1995-97).
Steering Committee, WASC/NASAD accreditation review (1995-97).
Chair, Search Committee: College Provost (1996).
Chair, Search Committee: Asst. Prof., History of Graphic Design (1996-97).
Chair, Search Committee: Director of Libraries (1995-96).
Chair, Search Committee: Assoc. Prof., History of Architecture (Spring, 1995).
Juror, Architecture Department Scholar-in-Residence Search Committee (Spring, 1995).
Search Committee: Chair of Industrial Design (1994).
Search Committee: CCA College President (1993-94).
Search Committee: Chair of Ethnic Studies Program (Spring, 1992-93).

at Stanford University (partial list):

Director, STS sequence of Cultures-Ideas-Values Program (1990-1993).
Office of Development, University Seminars Program (1989, 1990, 1991).
Dean, Stanford Alumni College (1989, 1991, 1995).
Senate Subcommittee on Distribution Requirements (1987-88, 1988-89).
Freshman and Sophomore Advisor (1988-89; 1989-90; 1990-91; 1991-92).
Provostial Task Force on Western Culture Program (1986-88).
Senior Advisor, International Student Pugwash (1987).
Co-Organizer, Sloan Foundation Conference on the "New Liberal Arts" (1987).
Chair, Subcommittee on Women and Minorities in Western Culture Program (1985-87).
Administrative Committee, STS Program (1980-83, 1988-91).
Senate Committee for Review and Recertification of STS Program (1982).

PROFESSIONAL SERVICE

Academic Convenor, Design History Society annual conference (San Francisco: Fall 2015).
Senior Advisor, ZHIMI, Women's Entrepreneurial Network, PRC.
Accreditation Committee, University of Oregon graduate design programs (Spring 2015).
International Advisory Board, Kyoto University Design School (2013-present).
Advisory Board, DESMA (European Design and Management Network (2014-1015)
M.C., Bay Area Best: IDSA/Business Week design awards (2002-2008).
Guest Professor, Graduate Design Program, Bezalel Academy, Jerusalem (2006, 2008).

Advisory Board, Stanford Product Design Program
Visiting Critic, Industrial Design Department, Academy of Art University (2007)
San Francisco Airports Commission, Advisor on Bay Area Design exhibition (2006-07)
External Reviewer, Design Studies Program, University of Otago, New Zealand (2005).
Peer reviewer: *Technology and Culture*, *Design and Culture*, numerous academic presses.

PROFESSIONAL CONSULTANCIES (since 1995—partial list)

Advisory Board, DESMA: European Design Management Association (2015)
Chief Designer, Fujitsu Open Innovation Center, Sunnyvale, California (2014-15).
Strategy and communications consultant, Entefy, Inc., Palo Alto, California (2015).
Expert Consultant, Samsung Global Design Index (August, 2012).
Special Advisor on national innovation strategy, Republic of Colombia (2010-2013).
Silicon Valley consultant: Fujitsu Corp. Global Knowledge Institute (2010-2014).
Silicon Valley consultant; Fuji-Xerox Corp. Knowledge Dynamics Institute (2010-2014).
Senior Associate, PenZA Perception Labs, Tel Aviv (2010-2014).
IDEO, Inc., Palo Alto: IDEO Fellow; Dean, IDEO University (1999-2014).
Metro Furniture, Burlingame: the future of work (2000-01).
Fantasma Networks, Palo Alto: web consulting, ultra-wideband networking (2000).
Strata Decision Technologies, Champaign, IL.: web consulting, decision analysis (2000).
PostTool Design/Palace Press International, San Francisco: web consulting (1998).
Lunar Design, Palo Alto: strategic and technical writing (1997).
frogdesign, Sunnyvale: creative and technical writing (1995-97).

PUBLICATIONS

Books:

Make it New: The History of Silicon Valley Design (MIT Press: Cambridge, 2015).

NONOBJECT: Design Fictions (with Branko Lukic), (MIT Press: Cambridge, 2011).

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Foreign Intelligence. Research and Analysis in the Office of Strategic Services, 1942-1945
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Herbert Marcuse and the Art of Liberation. An Intellectual Biography (Verso: London, 1982).

Journals Edited:

Design Book Review, Co-Editor, 1999-2000; Executive Editor, 2000-2001.

I.D. Magazine, Contributing Editor, 1999-2010.

Metropolis, Contributing Editor, 1997-2000.

Limn: Magazine of International Design: Contributing Editor, 1997-98.

rana #3: Strategic Integrated Design Magazine: Creative and Technical Guest Editor (theme for 1996-97: "Mass-Customization").

rana #2: Strategic Integrated Design Magazine: Creative and Technical Guest Editor (theme for 1995-96: "Hyperinformation").

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"How to Think Like a Designer," *Innovation: Quarterly of the Industrial Designers Society of America* (forthcoming: Fall 2015).

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Lucy S. Davidowicz, *The Holocaust and the Historians*, in *New German Critique* 26 (Spring/Summer 1982), pp. 211-213.

"Faded Memories," review of Gershom Scholem, *From Berlin to Jerusalem. Memories of My Youth*, in *Leviathan*, vol. 9, no. 1 (Fall 1980).

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"Walter Benjamin through the Looking Glass," review of Walter Benjamin, *Reflections*, in *Leviathan*, vol. 7, no. 3 (Spring 1979).

Tadeusz Borowski, *This Way for the Gas, Ladies and Gentlemen*, and Terrence Des Pres, *The Survivor. An Anatomy of Life in the Death Camps*, in *Leviathan*, vol. 7, no. 2 (Winter 1979).

Hannah Arendt, *The Jew as Pariah. Jewish Identity and Politics in the Modern World*, in *Leviathan*, vol. 7, no. 1 (Fall 1978).

Phil Slater, *Origin and Significance of the Frankfurt School*, in *Contemporary Sociology*, vol. 6, no. 6 (November 1977), pp. 728-729.

Conference Papers, Invited Lectures, Translations, Catalogues, Unpublished Essays:

"Palo Alto and Redmond: A Tale of Two Cities," invited lecture, Microsoft Corporation (October 2015; not yet scheduled).

"Ecosystems of Innovation," invited lecture and workshop, Thai Management Association (Bangkok: Oct. 19-21).

"How we Got Here." invited lecture, Uber (San Francisco: October 8, 2015).

"Equidistant from the Equator," keynote address and workshop, MeetLatAm (Valparaiso, Chile: August 13-14, 2015).

“Inspiration-Ideation-Implementation: A Design History Lecture series for Pinterest.” with Eric Heiman, Jeremy Mende, and Rachel Berger (San Francisco: July-August, 2015).

“Building an Ecosystem of Innovation: Lessons from Silicon Valley,” keynote address, Disruptive Innovation Learning Organization (Beijing: June 5, 2015).

“Academic-Industry Alliances: Promises and Pitfalls,” keynote address, University of Kyoto Design School (Kyoto: May 27, 2015).

“Ecosystem of Innovation,” keynote address and workshop, International Experience Design Conference (Beijing: July 17-18, 2014).

“On Design, Technology, and Innovation: A Conversation with John Maeda and Barry Katz,” Samsung Design Accelerator (Palo Alto: June 19, 2014).

“Bringing Silicon Valley to Seoul,” Keynote address, symposium on “Bringing Silicon Valley to Seoul,” Samsung Electronics (Seoul, Korea: June 10-11, 2014).

“China Without the Jet-Lag.” Series of lectures, seminars, and workshops hosted by the Universidad de Desarrollo (Santiago, Chile: March 24-29, 2014).

“The Amazing, Incredible, Unbelievable History of Silicon Valley Design.” Lecture, IDSA/Wharton School of Business Forum, “Design Means Business” (San Francisco: December 11, 2013).

“Culture of Innovation, Culture and Innovation,” Invited lecture, ANDI: Asociación Nacionales de Empresarios de Colombia (Medellin, Colombia: November 13-14, 2014).

“From Design Methods to Design Thinking: A Tale of Two Cities.” Invited paper, Conference on Wicked Problems in Socio-Ecological Systems, University of California at Berkeley (Berkeley: October 26-27, 2013).

“On Fire: From Thinking about Design to Design Thinking.” Keynote Address, conference on Theorizing Design: Shenkar College of Engineering and Design (Tel Aviv: 17-18 March, 2013).

“The Topography of Innovation,” Fujitsu Research Institute, (Tokyo: March 9, 2013).

“Creatively Managing Creatives,” Invited lecture: Mozilla Managers’ Forum (tba).

“From Technical Factors to Human Factors,” invited lecture, Xerox PARC (Aug. 7, 2012).

“How to Interact for a Better Future,” Design Dialogues, with Fiona Raby (Royal College of Art): Österreichisches Museum für angewandte Kunst (Vienna, Austria: May 15, 2012).

“The Ecosystem of Innovation,” Distinguished Guest Lecturer, Adobe Creative Labs (San Francisco: February 1, 2012).

“Shipping Product: 60 Years of Silicon Valley Design,” Invited lecture: Facebook (Palo Alto, California: December 12, 2011).

“Design: The Missing Link,” invited lecture, Samsung UX Design Center (San Jose, California: Oct. 17, 2011).

“From Thinking about Design to Design Thinking,” Taipei Design Center, SF (March 10, 2011).

“Phase Change: The Dynamic History of Silicon Valley Design”: Jewish High Tech Community of Silicon Valley (Mountain View, California: March 8, 2011).

"i-nnovation, e-nnovation," Keynote Address, opening of The University of Tokyo i.School (September 11, 2009).

"Product Design and Engineering," panelist, international symposium on "Re-Imagining Cities: Urban Design after the Age of Oil" (University of Pennsylvania, Institute of Urban Design: November 6-8, 2008).

"Why All Thinkers need to become *Design* Thinkers," keynote address, Fujitsu North America Technology Forum (Sunnyvale, CA: November 6, 2008).

"Themes and Variations: New Ideas in Israeli Design," Introduction to catalogue of Masters Program in Design, Bezalel Academy of Art and Design, Jerusalem, Israel (forthcoming, 2008).

"Anticipatory Design," conference on the 10th anniversary of Jump! Associates (June 2008).

"Design and the Human Condition: An Untimely Meditation," Hewlett Foundation Conference on Web 2.0+ (Palo Alto: Feb. 14, 2008).

"I Object! — 'I, Object'," Conference on The Object and Making: Function and Meaning, Haystack Mountain School of Crafts (Deer Isle, Maine: July 15-19, 2007).

"The Great Wall as Structure and Symbol," "'Inventions Obscure and Inglorious'," "The Long March and Modern Memory," "Made in China" – Stanford Travel-Study (China: June-July, 2007).

"The Shape of Things to Come: Toward a History of Silicon Valley Design, 1980-2010," invited paper, Design Research Society (Lisbon: November, 2006).

"Prolegomena to a History of Silicon Valley Design," invited paper, Society for the History of Technology (Las Vegas: October, 2006).

"Prototyping the Future," lecture and exhibition catalogue, Palo Alto Art Center (June-Sept. 2006).

"Bronze, Iron, and the Golden Age of Greece: Five Lectures," Stanford Travel-Study (Tuscany: July 2006).

"Innovation and Diversity: An Input-Output Model," presented at conference on Innovation and Diversity, Copenhagen Business School (Copenhagen, Denmark: June 6, 2005).

"Narrative Prototyping," invited lecture, University of Otago (Dunedin, New Zealand: May 5, 2005).

"Interface Degree Zero: Visual Culture and (post-) Industrial Design," paper presented at the First International Visual Studies Conference (Madrid, Spain: February 15-16, 2004).

"The Dematerialization and Rematerialization of Everyday Life," international conference on Subjectivity at the Threshold of the Digital Culture (Rio de Janeiro, May 21-23, 2003).

"Spaces of Creativity and Innovation," UC Berkeley-Hitotsubashi University Global Knowledge Forum (Tokyo: October 24-25, 2002).

Keynote Address, annual meeting of the Industrial Design Society of America (Monterey, CA: July 20-24, 2002).

Chair and Commentator, panel on “Architecture and the Cold War,” ACSA International Conference on Architecture, Culture, and the Challenges of Globalization (Havana: June 21-24, 2002).

“Future of an Illusion, Illusion of a Future,” invited lecture, Association of Collegiate Schools of Architecture Administrators’ Meeting (New York, NY: November 16-17, 2001).

“Functionalism Yesterday, Functionalism Tomorrow,” Conference on “Art and Aesthetics After Adorno,” University of California (Berkeley, CA: April 6, 2001).

“The Work of Art in the Age of Digital Manipulation,” lecture at the San Francisco Museum of Modern Art (San Francisco: March 17, 2001).

“The Dictatorship of the Professoriate: The Office of Strategic Services and the Origins of Soviet Studies,” Woodrow Wilson Center Conference on The History of Soviet Studies (Washington D.C.: October 19, 2000).

“The World Wide Web and the Internet Imaginary,” International Conference on The Collective Imagination: Limits and Possibilities (Rio de Janeiro: May 22-24, 2000).

“Modern Design—Postmodern Culture,” Museum of American Heritage (Palo Alto: May 19, 2000).

“OSS and the Jewish Question,” International Conference on New Records—New Perspectives: World War II, the Holocaust, and the Rise of the State of Israel (Jerusalem and Tel Aviv: December 14-16, 1998).

“The Metaphysics of Objects,” International Conference on Global Narratives and the Power of Symbols (Rio de Janeiro: May 18-20, 1998).

“Rival Italian Masters: A Discussion with Alessandro Mendini and Marco Zanini,” San Francisco Museum of Modern Art (January 22, 1998).

“The Metaphysics of Objects,” inaugural lecture, IDEO Product Development, Palo Alto (May 27, 1997).

“The Nature of Things,” invited lecture, Interval Research, Palo Alto (March 14, 1997).

“Manufacturing Aesthetics: Industrial Design in the Industrial Revolution,” invited lecture, Stanford Integrated Manufacturing Association (Stanford University: June 20, 1996).

“Seven Deadly Sins: Lessons from the History of Design,” presentation to the annual Principals’ meeting, SWA Group (Sausalito: November 11, 1994).

“OSS and the Origins of American Intelligence,” Conference on “The Origins and Development of the CIA in the Administration of Harry S. Truman” (Washington, D.C.: March 17-18, 1994).

“The Mouse that Roared: Euro-Disney and the Future of Architecture,” Visiting Artist Series, California College of The Arts (Oakland: December 3, 1992).

“Making Sense: The Technology-Culture Contingency,” meeting of the Industrial Design Society of America (San Francisco: August 16-18, 1992).

“The Turbulent World of Stephen J. Kline,” Conference on Turbulence Physics and Science-Technology-Society (Stanford University: August 10-11, 1992).

"The Development of the Research and Analysis Branch of O.S.S.," National Archives (Washington, D.C.: July 11-12, 1991).

"Head, Hand, and Heart in the Culture of the Renaissance," six lectures, Stanford Tuscany Institute (Florence, Italy: June-July, 1991).

"Literary Technique: The Novelist Confronts Technology," four lectures, Stanford Arts Series (February-March, 1991).

Commentator, panel on "Critiques of Industrial Society," Society for the History of Technology (Sacramento: October 13, 1989).

"The Social Sciences and the Origins of the CIA," New School Forum on Science, Technology, and Power (New York: December 1, 1988).

"Refugee Historians in the OSS," paper presented to the *Deutsches Historisches Institut*, conference on German Refugee Historians in the United States (Washington: December 2, 1988).

"*La Scienza Nuova*: Biotechnology and the University," paper presented to the NEXA Symposium on Human Gene Engineering (S.F. State University: April 13, 1988).

"Meinecke's Militia: Hajo Holborn, Felix Gilbert, and the German Catastrophe," conference paper, German Studies Association (Washington, D. C.: October 1985).

"European Intellectuals and American Intelligence," invited lecture, Claremont Colleges (Spring 1984).

"Thomas Kuhn Twenty Years After," conference paper, Stanford University (Fall 1980).

"Heidegger and the Nazis: The Philosopher in History," conference paper, University of California at Santa Cruz (Spring 1977).

"Now Only a God Can Save Us," translation of Martin Heidegger, "*Nur Noch Ein Gott kann uns Retten*" (Winter 1976).

note: numerous lectures and presentations to business, government, professional, and academic groups as IDEO Fellow and Dean of IDEO U Innovation Workshops, including:

"Electrified Money" (Visa: June 2014)

"Terms of Endearment" (National Campaign to Prevent Teen Pregnancy: June, 2013)

"The Eye of the Beholder" (Estee Lauder: February, 2013)

"Evolutionary Innovation" (Research in Motion: June, 2012)

"Workplace Wellness" (Kimberly Clark: March 2011)

"Senior Moments" (National Council on Aging: June 2010).

"Anticipatory Design" (Unimodal/SkyTran: July, 2009)

"Ripple Effect" (Bill and Melinda Gates Foundation: 2009)

"Money and Mobility: 10,000 Years of Economic Exchange" (VISA: Jan. 2008)

"Good Morning: A Century of Culinary Culture (Kellogg: May 2008)

"Health and Wealth" (Steelcase: February 2008).

"Storage and Retrieval: Recurring Themes in the History of Information" (Western Digital: 2007)

"The Revolutionary History of Bubbles" (Pepsi: May, 2007)

"Disposability: Reflections on the End of All Things" (Cargill-Dow: October 2004)

"From Imagining to Imaging: The Inside Story" (GE Medical: October 2004)

"PVC: The Life and Times of an Obnoxious Molecule" (DesignTex: March 2004)

"Marcel Duchamp and the Aesthetics of Modern Plumbing" (Procter & Gamble: Nov. 2003)

"Building a Culture of Innovation" (Fujitsu: May 2003)

"The Loneliness of the Long-Distance Traveler" (Boeing: Feb. 2003)

"Design: The Final Frontier" (NASA: Oct. 2002)

"The Shape of Things to Come" (Agilent Technologies: July, 2002)

Work-In-Progress:

The Architecture of Information: Building for a 21st Century Economy

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I. OVERVIEW

Prior to joining academia, Dr. Justice worked in industry for 13 years as a designer for companies such as Battelle, CompuServe and NCR. Her area of expertise is in design research. She has an international reputation as a design scholar, recently completing the book *China's Design Revolution* (MIT Press) after working 7 years in Asia as the Dean of the School of Design at the Hong Kong Polytechnic University (PolyU). During those years she was able to help secure a US \$34 million dollar grant from the Hong Kong Jockey Club for support of the new Innovation Tower by the Pritzker Prize winner, Zaha Hadid, and a US \$5 million grant to start the Design Institute for Social Innovation. Dr. Justice was able to take the PolyU School of Design from relative obscurity to one of the top 30 design schools in the world within 4 years. During her tenure there she was able to nurture a computing incubation center and a student product enterprise that was profitable. She was also able to work with minority cultures in the Yunnan province and started the Center for Design and Social Work in Kunming to start sustainable products and work for the region. She was also able to nurture projects and faculty, with a notable mention of SizeChina, an ergonomic study of the differences between the Western and Eastern body.

At Georgia Tech, Dr. Justice was able to take the Industrial Design program in the College of Architecture to national and international acclaim through its interdisciplinary work on campus with engineering, computing and the Center for Rehabilitative Technologies. She was part of a team receiving an NIH grant for US \$7 million dollars. She has been the recipient of a National Endowment for the Arts (NEA) grant for design and technology, and a team member for National Science Foundation grants and Smithsonian Awards.

She is a Fellow of the Industrial Designers' Society of America, named one of the Top 40 Designers by ID Magazine, and is an active member of the TED community, where she gave a talk at TEDX Hong Kong in 2009, in 2010 at TEDU at Long Beach. She serves on the Editorial Board for 5 design journals, advisory boards for universities and companies, and consults internationally for industry and government entities. She has recently become a blogger for the HuffingtonPost, and since returning to the US, has been asked to join thinktanks such as the Innercircle and the Swellness Movement. Her platform includes the TED audiences, international design and business audiences, product design and user experience audiences and more recently the general public who is interested in East-West studies. She enjoys working with others, engaging local, national and international communities and governments, supporting and mentoring staff, and making a difference in the world.

I. EMPLOYMENT HISTORY

Academic

- 2011-Present **Rochester Institute of Technology**
Dean, College of Imaging Arts and Sciences
Professor, Industrial Design
- 2004-2011 **The Hong Kong Polytechnic University**
設計學院 院長及太古講座教授
Swire Chair Professor of Design
Dean, School of Design
- 1998-2004 **Georgia Institute of Technology (Georgia Tech)**
Director – Reappointed in 2003
Industrial Design Program, College of Architecture, Associate Professor
Industrial Design Program, College of Architecture, Assistant Director,
Center for Assistive Technologies and Environmental Access
- 1988 – 1998 **The Ohio State University**
Acting Chair (1997-98)
Department of Industrial, Interior and Visual Communication Design
Associate Professor
Department of Industrial, Interior and Visual Communication Design
Adjunct Professor
Advanced Computing Center for the Arts and Design (ACCAD)

Full-Time Professional Experience

- 1986-1988 **Discovery Systems (METATEC),**
7001 Discovery Blvd., Dublin, OH 43017
Graphic Designer. September 1986 - August 1988
- 1985-1986 **Battelle Memorial Institute,** 505 King Ave., Columbus, OH 43201
Graphic Designer. May 1985 - September 1986
- 1985-1985 **Wendy's International,** Dublin, OH 43017
Computer Graphic Consultant. March 1985 - April 1985
- 1978-1985 **Goodyear,** 1144 East Market St., Akron, OH 44316
Graphic Designer/ New Product Development (January 1982-85),
Public Relations (September 1978 to January 1982)

Consulting Selected Industry Clients

Hefeng Creative Square

International design projects for Ningbo, China, industries

Yahoo! Hong Kong

Software interface design for search engines
Redesign of Yahoo! HK news page

Creativity Industry Consultant, Zhenhai District, The People's
Government of Zhenhai District, People's Republic of China

Hedworth Ltd

New product design for Hedworth silicone products

CheckFree

Design and production of online interactive banking products. Consulted on interface design of CheckFree Easy, and the RCM Club Management system, interactive CD or Apple Computer, Microsoft and others.

Center of Science and Industry (COSI)

Graphics and user interface designed and produced for McDonald's "Who's the Boss?", Ohio Edison's "Draw Ohio," and Apple and NSF's "Mission to Mars" interactive computer programs

Chemical Abstracts

Design and production of user interface and graphics for interactive computer training programs

CompuServe

Design and production of interface components for corporate web site

Lutron Electronics Company, Inc.

Evaluation of website and product interfaces

Metatec (formerly Discovery Systems)

Computer graphics production for interactive Hypersearch product and interactive Macintosh "Cookbook" demo, miscellaneous CD-Rom products

Microsoft

Invited juror for next generation computers

Nationwide

Evaluation of user interface for insurance training products

NCR

Design and production consulting for user interface, icons, and style manual for interactive computer graphic programs

II. EDUCATION

1999 **The Ohio State University**
Department of Communication
Ph.D. in Communication
Animation-assisted Memory Tasks

1988 **The Ohio State University**
Department of Industrial Design
Master of Arts (MA) in Industrial Design
Design Management and Technology

1977 **University of Edinboro**
Department of Fine Art, Edinboro, PA
Bachelor of Fine Arts

III. HONORS AND AWARDS

2013 Provost's "Heart and Mind" Award for diversity hires in the College of Imaging Arts and Sciences at RIT.

2013 Honorary Professor, School of Design, Jiangnan University, Wuxi, China

2012 President, Industrial Design Foundation for IDSA (current)

2008 National Education Award, Industrial Designer's Association of America (IDSA)

2008 Honorary Advisor, Hong Kong Brands Week 2008, Hong Kong Government

2007 Visiting Chair Professor, TianJian Academy of Fine Arts

2006 The I.D. Forty, The International Design Magazine January/February Issue

2000 Fellow of the Industrial Design Society of America, one of the highest honors a member can receive from the IDSA.

1995 Gianninoto Scholarship, a competitive IDSA graduate scholarship for work on Ph.D. dissertation.

1994 Twenty Who Matter, one of twenty alumni of Edinboro University of Pennsylvania who were chosen for this award.

1992 SIGGRAPH Educator's Grant to attend conference and receive materials; received one of ten national educators' grants.

1992 Smithsonian Award in Education and Academia, consulting and computer graphics for "Mission to Mars" interactive computer program installation for Center of Science and Industry (COSI). A team of designers, educators, programmers, and exhibit personnel were responsible for this exhibit.

1989 China Engineering and Graphic Society, Honorary Member, Beijing, P. R. C.

International and National Professional Boards and Appointments (selected)

Memberships on boards

2012-2014	East West Center for Design Research
2005-2009	International Council of Societies of Industrial Design (ICSID), executive board member, internationally elected for 2 terms
2000-2008	Carnegie Mellon University, School of Design Advisory Board
2000-2001	Atlanta Children's Museum Advisory Board
1997-1999	IDSA board member

Appointments

2009 –2011	Humanities, Business Studies, Social Sciences Panel, Research Grants Council, Hong Kong
2007-present	Hong Kong Design Centre, Board of Directors, Hong Kong Innovation and Technology Commission,
2004 – 2007	DesignSmart Proposal Assessors
2003	Businessweek /IDSA IDEA Awards Jury member
1999	Businessweek /IDSA Design of the Decade Jury member

IV. TEACHING

2011 to present	Rochester Institute of Technology College of Imaging Arts and Sciences Professor, Industrial Design
2004 to 2011	The Hong Kong Polytechnic University – School of Design Supervisor of PhD students and MPhil students
1998 to 2004	Georgia Tech – Tenured in 1999 Department of Industrial Design Graduate courses- Interface design, design research Undergraduate courses-Interface design, design studios Independent studies-Variied student research projects in design Supervisor of Master's Students and PhD co-advisor National Association of Schools of Art and Design Accreditation- Program Reviewer
1988 -1998	Ohio State University- Tenured in 1996 Department of Industrial Design Graduate courses- Introduction to graduate studies Undergraduate courses- Visual communication studios Independent studies- Individual, varied design projects Continuing Education Courses- 1990-1994 Design and Technology courses

V. RESEARCH, SCHOLARSHIP AND CREATIVE ACTIVITIES

External Proposals, Development, and Grants Funded (Selected)

Rochester Institute of Technology

2013 Hefeng Creative Square Ningbo, Establishment of the East West Center for Design Research, in-kind model.

The Hong Kong Polytechnic University (selected)

2011 Hong Kong Jockey Club Grant for the Innovation Tower and the Design Institute for Social Innovation, US \$34,000,000

2007 The Design of Application Specific Virtual Communities, School Board's Reserve, HK\$3,200,000.00

2006 An Eco-Design and Manufacturing Program for Electronic Products with reference to the Energy Using Product(EuP) Directive 2005/32/EC, ITF, HK \$4,043,400 (US\$518,384)

2005 Design Seminars for Industry Executives: A Top Down Approach, Professional Continuing Education Scheme of the Design Support Programme, DesignSmart Initiative, HK\$299,120 (US\$29,374)

Georgia Tech

2003 Eastman Plastics, new material product design, \$33,000

2002 \$4,500,000 NIDR grant on workplace accommodation through the Center for Assistive Technologies and Environmental Access (CATEA), Investigator on Grant

Coca Cola Packaging Grant, \$20,000

2001 Kodak Industries, \$30,000, new imaging products grant

Intel Corporation, \$40,000, mobile computing grant

2000 Information, Technology and Technical Assistance and Training Center, Investigator on \$7,500,000 grant

Microsoft/IDSA DesignAbout Conference on interface design, \$120,000

Viking Range Corporation, \$30,000, new mixer designs grant

Coca-Cola, \$18,000, new packaging designs grant

1999 Ashlar, Inc. software donation for Vellum 3-D modeling software for \$301,000

1998 Coca-Cola, Inc. packaging design grant in conjunction with Bill Bullock for \$15,000

Ohio State

- 1997 Whirlpool, Inc., *Microwaves for the Future* project grant for \$10,000
- Dynacraft, Inc., *Golf club re-designs* project for \$13,000
- American Media, “*How a Bill Becomes a Law,*” and “*You Choose.*” Living Ohio Government Series (LOGS) Project awarded to ACCAD, \$28,000
- 1995 Borden Interdisciplinary Student Project Grant for \$2000
- 1994 Pancis Gems Packaging Project for \$2200
- 1993 Corporate Design Foundation or \$1200 to attend the Design Leadership Symposium, June 6-7
- 1992 SIGGRAPH Educator’s Grant to attend conference and receive materials, \$1,250
- 1991 National Endowment for the Arts (NEA) Individual Grant for \$10,000. *The Changing Job Tasks and Job Descriptions of Designers Using Computer Graphic Equipment*
- Texas Instruments \$4000 grant for Visual Communication class for corporate identity and packaging project
- 1990 Battelle Memorial Institute donation of computer graphic equipment worth \$60,000

Internal Proposals and Grants Funded

The Hong Kong Polytechnic University

- 2006 *Product Design for Sustainable Social Development in Ethnic Minority Communities in the Yunnan Province*, ICRG 05/06, HKD \$287, 425
- 2006 *Novel Design of a Shape Memory Alloy (SMA) Backpack Scaffold with Due Considerations of Human Effect and Material Fatigue for Product and Military Applications*, ICRG 05/06, HKD \$320,000

Ohio State University

- 1995 College of the Arts Grant for \$2000. *CD-Rom Production of the Interactive Case Study Listing for the Design Management Institute.*
- 1994 University Continuing Education Summer Program Grant for \$6,000. *Photo and Image Manipulation, Introduction to Interactive Media.*
- 1993 University Continuing Education Summer Program Grant for \$3,000. *Photo and Image Manipulation.*
- 1992 University Interdisciplinary Research Seminar Program Award for \$3,340.

Interdisciplinary Issues of Design Management.

- 1991 University Continuing Education Summer Program Grant for \$6,224.
Beginning through Advanced Computer Graphics for Professional Designers.
- University, College of the Arts, Department of Industrial Design Grant for \$1300.
International Industrial Design and Industry Show, Toulon, France, paper presentation.
- 1990 University Continuing Education Summer Program Grant for \$6,200.
Computer Graphics Courses for Beginning through Advanced Designers.
- 1989 University Seed Grant for \$14,000.
Integration of Computer Graphics Systems into Traditional Design Offices. University,
College of the Arts, Department of Industrial Design.
- 1988 College of the Arts Direct Grant for \$1,400. *Job Tasks and Environment of Designers
Using Computer Graphic Equipment.*

Individual Non-University Contracts and Grants

- 1996-7 Checkfree Consulting for Product Interface Design, \$18,000.
New software for home banking.

Published Books and Parts of Books

- 2012 *China's Design Revolution*, MIT Press, 2012.
- 2009 *Encyclopedia of Distance Learning 2nd Edition*, Howard, C., Boetcher, J., Justice, L.,
Shenk, K. Idea-Group Publishing.
- 2005 *Encyclopedia of Distance Learning*, Howard, C., Boetcher, J., Justice, L., Shenk, K.
Idea-Group Publishing.

Book Chapters

- 2013 *Design and the Quality of Life*, Chapter in Edited CIDA book on Design Education,
Shenzhen.
- 1998 Justice, L. *The Big Squeeze, the Education of a Graphic Designer*. Edited by Steven
Heller, pp. 53-57.

Published Journal Papers (refereed, selected)

- 2009 Justice, L. *Different Global Paths to Creativity*, INNOVATION, Winter 2009, pp.29-31
- 2007 Chan, WH., Lau, KT., Au, S, Justice, L. *Interactive web-based product lifecycle
management (PLM) for engineering product design*, Engineering Designer, July/August,
p. 19

- 2007 Justice, L. *Going East, Doing Design Business in China*, INNOVATION, Summer, pp. 39-41
- 2007 Wan, PH., Siu, Michael KW, Justice, L. *Quality Urban Environment: Principles of Street Furniture Design*, The Environ Monitor, Vol. VII, Number 5, May, pp. 14-23
- 2007 Lau, KT., King, A., Justice, L. *New Engineering & Product Design Opportunities in Hong Kong and the Pearl River Delta Region of China*, The Journal of the Institution of Engineering Designers, January/ February, pp. 18-22
- 2006 Tzvetanova, S., Tang, M.X., Justice, L. *Modeling Emotional Interface Using Outsight and Insight Factors*, Second International Conference Design Computing and Cognition, Eindhoven, Netherlands
- 2006 Tzvetanova, S., Tang, M.X., Justice, L. *Design of Emotional Storytelling Interface for Educational Purposes*, 8th International Conference in Intelligent Tutoring Systems, Taiwan
- 2006 Tzvetanova, S., Tang, M.X., Justice, L. *Design of Emotional Web Interface Using InSite Factors*, Design and Emotion Confrence, Gothenburg, Sweden
- 2001 Justice, L. *Predicting the Success of your Website*, Design Management Journal, Vol. 12, Number 3
- 1995 Justice, L. *CD-Rom VS. Online Technologies: The Shades of Gray in Between*, Design Management Journal, Fall.
- Justice, L. *Entrepreneurship: The Designers' Experience*, Innovation, Summer/Fall Issue, Vol. 14, No. 3, Guest Editor, pp. 26-40
- 1994 Justice, L. *Interactive Multi-Media: Where the Action Is*, Innovation, Summer Issue, Vol. 13, Guest Editor
- 1993 Justice, L. *Technology in Graphic Design: A Survey of the Changing Job Tasks and Environment of Graphic Designers*, Design Management Journal, Spring Issue, Vol. 4, No. 2., pp. 74-79
- 1988 Justice, L. *Morale Factors Among Computer Graphics Users, A Study*, Innovation, Spring/Summer issue, Vol. 8 No. 2, 1989, pp. 33-35

Conference Proceedings (Selected refereed)

- 2007 Wan, PH., Siu, Michael KW, Justice, L. *Quality in Design: Creating Identity in Street Furniture Design*, 13th ISSAT International Conference on Reliability and Quality in Design, Seattle, Washington, U.S.A., August 2-4
- 2005 *Design Education from a Global Perspective*, Word Design Conference ERA 2005, LUND University, September 28

- 2005 *Crossover Design: Building on Many Strengths*, The Perspective of Crossover Design in the Future International Symposium, Chung Yuan Christian University, Taipei, June 11
- 2003 *The Problems and Benefits of "Umbrella" Ph.D.s in Design*, Design Research Society and Sixth Asian Design Conference, Third Doctoral Education in Design Conference, Tsukuba, Japan, October 12-15
- 2002 *The Design Critique*, IDSA Educators Conference, Monterey, CA, July 12-14
- Using Design Research Throughout the Creative Process*, The First China/US Design Education Conference, Beijing, May 13-17
- 2000 *The Benefits and Problems of a Research-based Design Curriculum*, Design Research Conference, Politecnico di Milano, Italy, May 17-21
- Creating a Research Design Culture that is Creative*, The Second International Doctoral Education in Design Conference, La Clusaz, France, July 8-10
- 1999 Justice, L. *The Uses of Animation in Interface Design*, One of nine articles chosen for publication in the international proceedings of the Computers in Art and Design Education (CADE) conference. CADE Conference Proceedings, April 7-9, pp. 15-25
- 1998 Justice, L. *Providing for the Future: Our Obligation to the Next Generation of Designers*, Conference Proceedings for Doctoral Education in Design, October 8-9, pp. 239-243
- 1997 Justice, L. *Achieving the Ten Year Design Goal: Start at 2006 and Work Backward*, National Science Foundation Conference on Design Planning. University of North Carolina, NSF publication, pp. 135-138
- 1996 Justice, L. *The Metatec Case Study: A Visual Audit for CD-Roms*, Design Management Institute, Education and Research Conference Proceedings, Barcelona, Spain
- 1995 Roth, S., Justice, L. *Apple Design Project '95: Integrating Physical and Virtual Environments*, Industrial Design Society of America Conference Proceedings, Santa Fe, NM, pp. 117-126
- 1994 Justice, L. *Visual Audit Criteria for Interactive Multi-Media: Where Art Meets Science*, IDSA, Design Education and Research Conference Proceedings, August 15-18
- 1993 Justice, L. *Design Business Practices: Emphasis on Technology*, Design Management Institute, Design Education and Research Conference Proceedings, Boston, MA
- Justice, L. *An Interdisciplinary Design and Technology Course: The Case for Case Studies*, Industrial Design Society of America Education Conference Proceedings, Atlanta, GA, pp. 123- 8
- Justice, L. *Ergonomic Information in our Computer Courses: A Little Goes a Long Way*, Technology in Education Conference Proceedings, Massachusetts Institute of Technology, Boston, MA, pp. 364-366

- Justice, L. *Continuing Computer Education for the Design Professional*, Technology in Education Conference Proceedings, Massachusetts Institute of Technology, Boston, MA, pp. 367-369
- 1992 Justice, L. *Computer Work Habits: The Good News and the Bad News*, Industrial Design Society of America Education Conference Proceedings, San Francisco, CA, August, pp. 47-50
- 1991 Justice, L. *The Changing Design Environment: Computers in Our Offices*, Proceedings for the International Design and Industry Show, Toulon, France, September
- Justice, L. *Computer Education for the Design Professional: Beyond Hardware and Software*, Industrial Design of America Educators' Attitudes Toward Design Conference Proceedings Providence, RI, August pp.18-20, diskette
- 1990 Justice, L. *The Changing Job Tasks and Environment of Designers Using Computer Graphic Equipment*, Computers and the Quality of Life Conference, The George Washington University, Washington, D. C., ACM Computers and Society Special Interest Group, September 13-16. Abstract published pg. 125, paper distributed
- Justice, L. *Ergonomic and Environmental Issues of Integrating Computer Graphic Systems into Design*, Proceedings of the Industrial Design Society of America 1990 Design Education Conference, Art Center
- 1989 Justice, L. *Integrating Computer Graphic Systems into the Design Office*, Conference Proceedings, International Conference on Computer-Aided Design, Drafting and Manufacturing, Zhejiang University, Hall of Science and Technology, Hangzhou, China

Invited Conference Presentations (selected)

- 2013 *Breaking all the Rules*.
Keynote, Industrial Design Society of America (IDSA), Chicago, Illinois. August 16
- 2010 *The Yunnan Project – Building in Non-Corruption Methods for Rural Work (Keynote)*.
LeNS Conference Sustainability in Design: Now. Srishti School of Art Design and Technology, Bangalore, Sept 28 – Oct 2
- Design in China*, CUMULUS Shanghai Conference 2010
- Inclusive Design for Older Adults (Keynote)*. Interdisciplinary Knowledge and Practice on Active Aging. Inauguration Symposium of PolyU Institute of Active Aging, July 2
- Solving Other People's Problems: Design Education Today*. Open Forum on Design Education. Hong Kong Design Centre, June 26
- 2009 *Art and Design Inspirations: East and West*, China Central Academy of Fine Arts, Beijing, October 29-30

- A Brief History of Interactivity: What is Next?*, 2009 International Conference on Interaction Design, Beijing, October 16-18
- 2008 *The Courage to be Creative (Keynote)*, International Design Conference, 2008 Shanghai Design Biennial, Shanghai September 17-20
- Taxi Service As A Clue to Culture (Keynote)*, International Service Innovation Design Conference, Dongseo University, Korea October 20-22
- What kind of Designers are we Educating*, Design Educational Roundtable Discussion, Seoul Design Olympiad 2008, Seoul Design Center, Korea October 10-12
- 2007 China International Industrial Design Forum (CIIDF) & The 12th China Industrial Design Annual Meeting (CIDAM), Industrial Design Branch of China Mechanics Engineering Society, Bao'an District People's Government, Bao'an, Shenzhen, China, December 6-9.
- Building Cultural Software (Panel)*, ELIA Leadership Symposium, European League of Institutes of the Arts, Hong Kong, December 4-7
- Designing the Digital Life (Keynote)*, 3rd China International Conference on Digital City, The Ministry of Construction, P.R. China and Shenzhen Municipal People's Government, Shenzhen, September 21-23
- Teaching in China (Panel)*, Interior Motives China Conference 2007, Ultima Meida, Shanghai, China, April 17-19
- The Changing Face of Content The Art of Digital Storytelling (Panel)*, Digital Entertainment Leadership Forum (DELFL) 2007, HK Cyberport, Hong Kong, March
- Design in Asia*, DISA South African Design Excellence Award 2007, SABS Design Institute and The University of Johannesburg, Johannesburg, South Africa, March (a National design award)
- 2006 *The Emerging Strength of Chinese Design*, The 7th International Conference on Computer-aided Industrial Design and Conceptual Design, Hangzhou, November 7-9
- Product Design Education in China*, Eastman IDSA National Education Symposium 2006, IDSA, Austin, Texas, September
- 2005 *Brands and Designers China Initiative 2005 (BDCI) Seminar*, China Council For The Promotion of International Trade Shenzhen Sub-Council; Shenzhen Sphinx Culture And Communication Co. Ltd.; THE KEY, Shenzhen, China, October 25-28
- Opportunities and Issues of Design & Branding in China*, International Packaging Group Conference, International Packaging Group, Hong Kong October 11
- Design Education from a Global Perspective*, ERA 05 Educational Workshop Exploring Change – Design Education in the New Era, Lund University, Sweden, September 28

- Crossover Design: Building on Many Strengths*, The Perspective of Crossover Design in the Future International Symposium, Chung Yuan Christian University, Taiwan, June 11
- Market Opportunities: Design Trends of the Next Ten Years*, 2005 Toy Industry Development Trend Summit, Guangdong Chamber of Commerce, China, April 27-28
- 2004 *Design Research in Masters Projects: Six Examples of Behavioral Research*, FUTUREGROUND 2004, DRS International Conference, Melbourne, Australia, November 17-21
- 2003 Design Educator's Conference, New York, NY, August 12-14
- 2002 IDSA Design Research Section, Monterey, CA, July 14-18
- 2001 Design Research Roundtable, California State Polytechnic University, November 2-3
- Industrial Design Educators Conference, Design Research, Boston, August 13-15
- Industrial Design Society of America (IDSA) National Conference, Assistive Technologies, August 15-18
- 2000 The Benefits and Problems of a Research-based Design Curriculum, Design Research Conference, Politecnico di Milano, Italy, May 17-21
- Creating a Research Design Culture that is Creative, The Second International Doctoral Education in Design Conference, La Clusaz, France, July 8-10
- 1999 *Providing for the Future: Our Obligation to the Next Generation of Designers*, Conference Proceedings for Doctoral Education in Design, October 8-9
- The uses of motion within the interactive interface*, Sheffield-Hallam University, United Kingdom- Lecture to the Industrial Design Program
- 1998 *Creating Strategic Partnerships with Research Universities*, ICSID, Pittsburgh, PA
- 1997 *Achieving the Ten Year Design Goal: Start at 2006 and Work Backward*, National Science Foundation Conference on Design Planning. University of North Carolina
- Interactive Media Education and Industrial Design*, New York City IDSA Chapter, Microsoft, September
- Evaluating Interactive Media*, Center for Advanced Studies in Telecommunication, Ohio State University
- 1996 *The Metatec Case Study: A Visual Audit for CD-Roms*, Design Management Institute, Education and Research Conference Proceedings, Barcelona, Spain
- Achieving the Ten Year Design Goal: Start at 2006 and Work Backward*, National Science Foundation Conference on Design Planning. University of North Carolina, NSF publication, pp. 135-138

- 1995 *Interactive CD-Rom Design Management Institute Case Studies*, Design Management Conference on Education and Research, Stanford University, Stanford, CA, July
- Apple Design Project '95*, IDSA National Conference, Santa Fe, NM
- 1994 *Interactive Multi-Media*, IDSA Special Interest Group on Interactive Media, IDSA National Conference, August
- Visual Audit Criteria*, IDSA National Conference, August
- 1993 *Design Business Practices: Emphasis on Technology*, Design Management Conference on Education and Research, Massachusetts Institute of Technology, Boston, MA, July
- An Interdisciplinary Design and Technology Course: The Case for Case Studies*, IDSA Educators' Conference, Atlanta, GA, August
- Computers and Technology in Design*, University & College Designers Association Conference, St. Louis, MO, October
- 1992 *Continuing Computer Education for the Design Professional*, and *Ergonomics in our Computer Courses: A Little Goes a Long Way*, Technology in Education Conference, Massachusetts Institute of Technology, Boston, MA, March
- Computer Work Habits: The Good News and the Bad News*, IDSA Education Conference, San Francisco, CA, August
- The Human Resources Aspects of Computerization*, Council for the Advancement and Support of Higher Education (CASE) 5 Conference, Presentation and Roundtable Presentation, Chicago, IL, December
- 1991 *The Changing Design Environment: Computers in Our Offices*, International Design and Industry Show, Toulon, France, September
- Computer Education for the Design Professional: Beyond Hardware and Software*, Industrial Design of America Educator's Attitudes Toward Design Conference, Providence, RI, August
- Technology in Design Offices*, Association for Computing Machinery SIGGRAPH conference, Las Vegas, NV, July
- 1990 *The Changing Job Tasks and Environment of Designers Using Computer Graphic Equipment*, Computers and the Quality of Life Conference, The George Washington University, Washington, D. C., ACM Computers and Society Special Interest Group, September
- 1989 *From Marker to Mouse*, Columbus Society of Communicating Arts, Fitch RichardsonSmith, July 19, Columbus, OH

Integrating Computer Graphic Systems into the Design Office, Conference Proceedings, International Conference on Computer-Aided Design, Drafting and Manufacturing, Zhejiang University, Hall of Science and Technology, Hangzhou, China, October

Exhibitions

1996 The Processing of Perception Exhibition at the Wexner Center, COSI and the Martin Luther King Center, exhibit as well as CD-Rom product. Produced *Alexa in Wonderland*

Research Reports (selected)

1992 Justice, L. *The Changing Job Tasks and Job Descriptions of Designers Using Computer Graphic Equipment*, National Endowment for the Arts Report, #91-4216-0114

Book/Manuscript Reviews (selected)

1989 Stewart Mosberg, *Design in Motion-Packaging*. Van Nostrand Reinhold: New York, 182 pages

1989 Editors, Signs of the Times Magazine, *Successful Sign Design*. Van Nostrand Reinhold: New York, 255 pages

Editorships, Editorial Boards

2009 to present *Asia Design Journal*, Seoul National University, Korea
Advisory-Editorial Board Member

2007 to present *Studies in Material Thinking*, Auckland University of Technology
Editorial Advisor

2006 to present *International Journal Design*, e-first and paper publication, Taiwan
Editorial Board

2006 to present *Design Studies*, ELSEVIER, United Kingdom, Editorial Board

2005 to present *The Journal of Designing in China*, Hong Kong Polytechnic University and Zhejiang University, Editorial Board

1998 to present *The Design Journal*, United Kingdom, Editorial Board

2000 to present *Design Issues*, MIT Press
Book Review Editor

1997 to 1999 *Innovation*, Industrial Design Society of America professional journal
Editor for the Interface/Interaction column

1994-95 Guest Editor, *Innovation*

Online Design Research, (DRS), UK, Ph.D. discussion list.

Other works (Software development, film, video, slides)

1997 Consulting on “You Choose: Electing Your Government” interactive CD-Rom for the Governor of the State of Ohio, in conjunction with ACCAD.

VI. SERVICE ACTIVITIES (Selected)

Professional Activities

2013 President, Design Foundation, Industrial Designer’s Society of America
2011 HKPU School of Design Alumni Association, Advisory Committee Member
2010 SparkChina Advisory Council, Council Member
ICoRD Programme Committee Member
Macao Creative Industry Association, Advisor
Hong Kong Designers Association, Board of Advisors
Hong Kong Jewellery Designers Association, Advisor
CUMULUS Shanghai Conference, Academic coordinator
Local Wisdom & Globalization
2009 Catalyst Award case study selections panel, IDSA Conference
Icsid World Design Congress
Icsid Design Education Conference Review Panel
2007 International Association of Societies of Design Research (IASDR), reviewer
2003 Design Research Society (DRS)
Common Ground Conference, paper reviews for 2003
2002 Design Research Society (DRS),
Common Ground Conference, paper reviewer for 2002 conference
First China-US Design Educator’s Conference, paper reviews for 2002 conference
2001 International Council of Societies in Design (ICSID),
Design Conference in Korea, paper reviews
2000 Doctoral Programs in Design II, La Clusaz, France, paper reviews
1989 Doctoral in Design I, Columbus, Ohio, paper reviews for conference

Juries

2013 Best Design Awards, Shenzhen China
2011 HK Information Technology Joint Council Awards– Best Lifestyle Award,
Advisory Board
2010 CBN Innovation and Design Award, August 2010
PolyU Innovation & Entrepreneurship Global Student Challenge (GSC)
2009 Design for Asia Award Regional Expert Panel
Dongguan Cup International Industrial Design Awards, Dongguan Municipal
People’s Government, Guangdong Province China Industrial Design Association
China’s Most Successful Designs Award Competition, Shanghai International
Creative Industry Week Organizing Committee, Shanghai Industrial Association,
Shanghai Creative Industry Center and China Bridge International Outstanding
Greater China Design Awards, Hong Kong Art & Design Festival
Fortune China Business & Design Award, Frog Design, CUMULUS Competition
Design Inspiring Humanism, Tongji University, Shanghai

- 2008 Lotus Prize, Hunan Provincial Government of China
- 2007 The 9th HK Household Electrical Appliances Design and Innovation Competition
Adler Jewelry & Product Design Competition
Octopus Card Design Competition, Octopus Cards Ltd.
DISA South African Design Excellence Award 2007, SABS Design Institute and
The University of Johannesburg
- The 8th HK Household Electrical Appliances Design and Innovation Competition
- The 14th Asia Pacific Interior Design Award 2006
- The Outstanding Greater China Designers Awards
- Design for Asia Award 2006 (DFA Award)
- 2005 The 7th HK Household Electrical Appliances Design and Innovation Competition
Microsoft Next-Generation Windows PC Design
Hong Kong Toy Design Competition
Design for Asia Award 2005 (DFA Award)
- The 7th HK Jewelry Design Competition
- HKDA Awards 05
- Formica Competition
- 2004 HK Original Gifts & Household Products Design Competition
- 2003 BraunPries, Guest Juror
BusinessWeek/IDSA Awards Juror
- 1999 BusinessWeek/IDSA Design for the Decade
- 1996 BusinessWeek/ IDSA Awards Juror

University Program Review

- 2009 Academic Leader, The Tecnologico de Monterrey
- 2008 International Advisory Meeting, College of Design Innovation, CAUP Tongji University
International Advisory Group, Shanghai Institute of Visual Art, Fudan University
- 2007 External Advisory Committee, Department of Industrial Design, Korea Advanced
Institute of Science and Technology, 2007-2009
- 2005 York University, Program review for Proposed M.A. in Design, February 2005
Carnegie Mellon University- Advisory Board member to the School of Design
Rochester Institute of Technology- IDSA/NASAD review
Syracuse University
- 2004 Philadelphia Institute of the Arts/Nasad Review March 04
Humber College, Canada- Program review for PEQUAB
University of Lund, Sweden- Consulting to design program
Columbus College of Art and Design – NASAD review
Virginia Tech- Consultant

Conference Planning/Committees

- 2011 Doctoral Education in Design Conference, Hong Kong
International Conference on Research into Design (ICoRD'11), Bangalore
- 2011 Design & Emotion Advisory Board
- 2009 ACM SIGCHI Creativity & Cognition Conference, Program Committee
Educational Conference 2009, Co-Chair (in process), Singapore
- 2008 Design & Emotion Conference
- 2007 2nd IASDR Congress (International Association of Societies of Design Research)
- 2006 Reinventing with Design conference and workshop

2005-11 Business of Design Week (BoDW), Hong Kong
 2005 The Fourth Doctoral Education Conference, Chairman
 2004-11 DesignEd Asia, Hong Kong
 2002 First China-US Design Educator's Conference, Co-Chair
 Common Ground, Design Research Society, UK
 Microsoft-IDSAs DesignAbout at Redmond, WA
 1999 Doctoral Programs in Design I, Co-Chair, Columbus, OH

IDSAs Membership Positions (selected)

2012- President, Design Foundation
 2003-05 Southeast District Educational Representative
 2001 Fellowship Committee
 1997-99 Board of Directors
 1997-8 Chair of the Professional Sections
 1995-7 Chair of the Publication Committee
 1996 Chair of the International Awards Committee
 Chair of the Professional Section on Interface Design
 Editor, Visual Interface Column, *Innovation*
 1994-5 Guest Editor, *Innovation*
 Group Leader for 1995 National Conference
 1992 Industrial Design Education Conference, Panel Chair on Technology and
 Education
 Educational Testing Service, Princeton, NJ
 1990 Reviewer for the occupation Industrial Design Career Guidance System

Committees (selected)

2011- Dean's Council, RIT
 2010-11 Board of Advisors, Hong Kong Designers Association, 2010/12
 Advisor, Hong Kong Jewelry Designers Association
 Advisor, Macao Creative Industry Association
 2009 CyberAdvisor, Hong Kong Cyberport
 2007 Design Creativity Special Interest Group Committee
 External Advisory Committee, Department of Industrial Design, Korea Advanced
 Institute of Science and Technology
 2005-7 Admission Panel of the Design Incubation Programme, Hong Kong Science &
 Technology Parks Corp.
 Advisory Committee of the Cyberport IncuTrain Centre, Hong Kong Cyberport
 Management Company Ltd.
 Advisory Committee for the Design, Marketing and Licensing Services, HKTDC
 2006 Evaluation Committee for the 3rd Premier Asian Licensing Awards
 2005 Evaluation Committee for the 2nd Premier Asian Licensing Awards
 1996 IDSAs Planning Committee for 1996 National Conference
 1993-4 IDSAs Publications Committee
 1997-8 Doctoral Education in Design Planning Committee

Memberships

TED Conference, Long Beach, CA, 2009, 10, 11
American Center for Design, membership 1994 to 2000
Association for Computing Machinery (ACM)
 Special Interest Group Graphics (SIGGRAPH)
 Special Interest Group Computers and Society (CAS)
 Special Interest Group Human Computer Interaction (HCI)
College Art Association
Corporate Design Foundation
Design Management Institute
Human Factors Society, membership, 1989 -00
Industrial Design Society of America, membership 1988 to present

Outreach Activity Public Service

Northeast Columbus School District Advisory, 1994-6
Columbus Schools Art and Design Skills Committee-1994
Committee for Art and Design, 1992-4
Society to Prevent Blindness, 1993-7
Columbus Society of Communicating Arts Student Liaison, 1990-93
Package Design Council Student Scholarship Committee, 1990-93

News Items- (selected Web, TV, Radio, Newspapers)

Huffington Post-Blogger for Huffington Post on East-West issues
Radio3-June, 2006, Radio Television of Hong Kong
Ming Pao Daily News-May 18, 2006, Press interview of being elected as ID40
Sing Tao Daily-May 18, 2006, Press interview of being elected as ID40
Hong Kong EconomicTimes-May 18, 2006, Press interview of being elected as ID
Current-Swedish-American Journal for Business, December 1, 2002
USA Today- December 31, 2001, Devil in the Design
USA Today- March 14, 2000, Section D, Marketing by Design
Atlanta Journal Constitution- March 20, 2000, Living Section D, Cheap Chic
BusinessWeek-November 29, 1999, Design of the Decade
Fox News-April, 1999, Inventor Company Fraud
Channel 2, Atlanta-March, 1999, Children's Safety

Contributor to social media blogs, LinkedIn, etc.



**Product Design Masters Programs
External Review
March 3, 4, and 5, 2015**

Tuesday, March 3, 2015

- 3:00pm Prof. Clark Lundell arrives in Eugene (driving from Portland)
- 3:10pm – 5:30pm Clark Lundell and Kiersten Muenchinger to tour innovation spaces in Eugene community
- 5:30pm Dinner (with Kiersten Muenchinger)

Wednesday, March 4, 2015

- 8:00am Jason Germany meets Clark Lundell in Excelsior Hotel lobby
- 8:05 – 8:45am Breakfast
Excelsior Hotel
- 9:00 – 9:45am Clark Lundell meeting with Jim Bean (SPI and SPM discussion)
Lillis 352
- 9:45 – 10:30am Wonhee Arndt providing tour of PD 484 'senior studio' for Clark Lundell
Romania Building
- 10:30 - 11:45am Wonhee Arndt providing tour of PD facilities for Clark Lundell
Millrace 4 – research spaces and Millrace Woodshop
- 12:00 - 1:30pm Lunch (with Jason Germany)
Marche Museum Cafe
- 1:30 – 3:00pm Jason Germany providing tour of PD facilities for Clark Lundell
Lawrence Building Spaces
- 3:00pm – 4:00pm Clark Lundell Talk / Meeting: "Industry Collaborations"
with Chuck Williams and Pat Jones
Peace Health N., 5th Fl, Mazama Rm.
- 4:00 – 5:00pm Jason Germany providing tour of PD facilities for Clark Lundell
(if needed)
- 5:00 – 6:00pm Clark Lundell – down time
- 6:00pm Dinner
Excelsior Hotel

Thursday, March 5, 2015

- 8:30am Jason Germany meets Clark Lundell in Excelsior Hotel lobby
- 9:00am – 12:00pm - **External review team meeting – (LA 254)**
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- 9:00 – 9:30am *Charge to external review team*
Andy Berglund, Interim Dean Graduate School
- 9:30-9:45am *Introductions to the committee*
Anya Kivarkis, Acting Assoc. Dean for Academic Affairs
Kiersten Muenchinger, Dir. of the Product Design Program
- 9:45-10:30am *Jason Germany proposal descriptions and Q&A with the committee*
- 10:30-11:00am *Budget framework for grad. programs*
Rocco Luiere, Assoc. Dean for Finance
- 11:00 am – 12:00pm *Review Committee deliberation and discussion*
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- 12:00 – 1:00pm Lunch
Anya Kivarkis, Acting Assoc. Dean for Academic Affairs
- 1:00 – 3:00pm Drive to Portland – UO White Stag
Clark Lundell and Jason Germany
- 3:30 – 4:00pm Clark Lundell meeting with Ellen Schmidt-Devlin (SPI and SPM discussion)
UO White Stag
- 4:00 – 5:00pm Tour UO White Stag facilities / Innovation Lab