



Experience University Research

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2019 Experience University Research

UNIVERSITY/GRADUATE PROGRAM OVERVIEW

大学及研究生暑期科研课程

AUGUST 4 – 24, 2019

PROGRAM DESCRIPTION (课程简介)

Experience University Research (EUR) for University and Graduate Students is an academically challenging and culturally immersive program designed to help highly motivated students take advantage of a Top 10 public university campus, building practical skills and gaining invaluable experience as they further their academic and profession careers. This EUR Package is designed to accommodate both international students with high English proficiency (iBT TOEFL score of 60 recommended) and native English speakers over the age of 18. **An F-1 visa is required for international students enrolling in this full-time program.** **Courses will receive UCI DCE credit, but credit may be granted by the student's home university (at its discretion).** Upon completion of the course, students will have an opportunity to receive the Graduation Design Award.

Experience University Research (大学科研体验暑期课程, EUR) 是一个具有学术挑战性的美国大学科研体验课程, 其教学宗旨是让国际学生能够充分利用在加州欧文这所美国“前十”公立大学校园里学习的优势, 通过课程的实践获得世界水平的实验室/科研经验, 从而进一步拓展学术视野和职业规划水平。由于课程将会有美国本土以及来自其它国家的学生参加, 参加课程国际学生必须有一定的英语水平(建议托福成绩为60分以上), 年龄要求18岁以上。**参加这个全日制课程的国际学生需要F-1的美国学生签证。完成课程后, 学生将会获得加州欧文DCE的正式学分, 但是具体学分转换请联络学生本校教务处具体落实。**在课程结业后, 学生最后有机会参与课程毕业设计, 并且获得设计奖。

PROGRAM WEBSITE: <http://ip.ce.uci.edu/programs/customized-programs/eur/>

PROGRAM CONTACT

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International Program Coordinator

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EUR UNIVERSITY/GRADUATE PACKAGE DATES & FEES (I-20 required)

Arrival/Housing Check-In: (到校日期)	August 4, 2019
Dates of Instruction: (上课开始日期)	August 5-23, 2019
Departure/Housing Checkout: (离校日期)	August 24, 2019
Program Fee: (课程费用)	\$5,500 per student*
Housing Deposit: (宿舍押金, 不可退)	\$400 per student
<i>(non-refundable, applied toward Program Fee)</i>	

Included with Program Fee: (课程费用涵盖范围)

- 60+ Hours of Academic Instruction (includes one elective course) ; 60小时学术课程 (包含一门选修课)
- 20+ Hours of Academic-Related Activities; 20小时的相关学术活动
- Shared Dorm Room; 双人房间
- Airport Transfers; 机场接送
- Health Insurance; 医疗保险
- UC Admissions and Majors Presentations; 加州大学录取和专业选择讲座
- Campus and Lab Tours; 校园和实验室参观
- Conversation Partners; 语言伙伴配对
- Welcome and Farewell Lunches; 欢迎和欢送午餐
- Grade Reports and UCI Certificates of Participation; 课程成绩单及结业证书

Students may participate in optional cultural and educational activities for additional fees. More information at: <http://ip.ce.uci.edu/activities/field-trips-events-activities/>.
如果学生需要参加其它可选性的文娱和教学活动可能会需要支付额外的费用。

* Some Electives may require an additional materials fee. Students may add multiple Electives for an additional fee. 有部分专业课程有实验耗材费用, 需要学生自己支付

All fees (except Application Fee) are due 30 days prior to program start date.
开学前30天必须缴交所有费用

Course schedules, instructors, and availability subject to change.
课程时间表、教授、和开设专业随时可以根据大学实际情况进行更高和调整

Refund/Cancellation policy available at:
<http://ip.ce.uci.edu/tuition-and-fees/payment-policies-deadlines/>

EUR UNIVERSITY/GRADUATE CORE COURSES (必修专业课)

Global Communication Skills (24学时)

As students prepare to further their academic and professional careers, they must effectively communicate their ideas to diverse audiences. The goal of this course is to prepare students to communicate with both native and non-native English speakers, particularly in relation to their *chosen fields of study*. In this course, students will study and practice effective methods for speaking and presenting their ideas clearly to a global audience, including voice projection, enunciation, timing, nonverbal communication, cultural norms, simplifying speech, and specifying meaning. Examples of learning activities in this course include class discussions and debates, individual and group presentations, listening logs, listening quizzes, and leading discussion groups.

由于学生需要进一步拓展其学术和职业生涯，学生们必须能够准确无误地将他们的想法传达给不同的群体。本课程的目标是让学生领略如何与以英语为母语和非母语不同阶层的人在学生自己的相关学习领域进行交流。课程中，教授将会指导学生“行之有效”的方法，例如：声调、发音、时间安排、肢体语言、文化背景、和特定词汇背景去面对不同类型的群体，并且同时可以清楚地表达自己的想法。教学模式将会以讨论和辩论，个人和小组演示，听力测验和各种可以学术讨论组进行。

Instructor: Helen Nam, M.A.

Advanced Writing Composition (24学时)

Effective writing is crucial to success in any field. The goal of this course is to prepare advanced and native English speakers for academic writing at the graduate level, particularly in relation to their *chosen fields of study*. Students will learn to develop and express ideas effectively for a variety of purposes (expository, analytic, and argumentative), audiences, and occasions. Students will also study and apply various rhetorical strategies used in different academic and professional disciplines. By the end of the course, students will be expected to understand the writing process, evaluate and use various types of evidence, identify and use effective prose, engage with others' ideas, and properly cite sources.

有说服力的写作对任何领域的成功都甚为重要。本课程的目标是为研究生水平的学生提高他们在自己相关学习范畴的学术英语写作水平。学生将需要将各种有效的表达方法运用于不同的场景，例如，说明、分析和论证、应对不同的观众和场合。学生还将学习和应用不同的专业和学科特有的各种修辞方法。在课程结束时，学生应该可以独立完成学术文献的写作，评估和使用各种类型的论证文献，识别和使用有效的论文，与其它科研人员分享想法，并适当地引用论文资料来源。

Instructor: Emily Wong, M.A.

EUR UNIVERSITY/GRADUATE ELECTIVE COURSES (choice of one or more)

Social Ecology: Environmental Analysis and Design (24学时)

The goal of this interdisciplinary course is to explore science-driven solutions to major global challenges. Students will investigate such topics as why access to clean water is so difficult both globally and locally, what can be done about it, and how to transcend the negative impacts of a changing environment. In doing so, students will integrate tools from natural and social science to analyze real-life examples and apply creative thinking to shed new light in how to address environmental challenges in evidence-based papers. By the end of the course, students will have a strong understanding of major contemporary challenges, the formation of public policy, and how solutions may be found. This course is ideal for students pursuing careers in public policy, law, environmental science, and political science.

这是一门跨学科的专业，其教学目的是启发学生探索如何用现代的科学方法来面对重大的全球挑战。学生的科研课题将会涉及到，诸如，“为什么在全球或者本地，居民都很难获得清洁的水源？探讨人类可以做什么以减轻这种情况？以及人类应该如何面对这些不断变化的负面环境影响。通过各种论证，学生将整合他们的自然科学和社会科学知识来分析现实生活中的例子，启发学生的创造性思维用以面对这些挑战，为论证各种解决负面环境影响提供新的视角。在课程结束时，学生将对现代社会面临的挑战有一个通识性的了解，从而了解政府各种公共政策是如何制定和形成，以及如何寻求最佳解决方案。本课程适合“公共政策，法律，社会学、环境科学与工程和政治科学的学生”。

Instructor: John Whiteley, Ed.D

Engineering: Designing and Integrating IoT Devices (24学时)

Skills in Python, computer hardware, and IoT devices have many applications and are highly sought after. The goal of this course is to build students's skills in these areas by designing and programing robots to complete a series of pre-determined tasks using Raspberry Pi single-board computers. In doing so, students will set up the Raspberry Pi environment, use Python-based IDE (integrated development environments) for the Raspberry Pi, and learn computer hardware. Students will work together in teams of 2-3 to build the robots. The course will culminate in a competition, putting students' programming and designs to the test. May the best robot win!

编写Python语言代码的技能，计算机硬件和物联网设备的技能有很多广泛的应用，拥有这些技能的人将会备受企业的追捧。本课程的目标是通过设计和编程机器人来使用Raspberry Pi单板计算机完成一系列预定任务，从而培养学生在这些领域的技能。在此过程中，学生将设置Raspberry Pi环境，为Raspberry Pi使用基于Python的IDE（集成开发环境），并学习计算机硬件。学生将以2-3人的团队合作建造机器人。该课程将会有设计比赛，将学生的编程和设计付诸实践。**最好的机器人设计将会获得课程颁发的奖学金！**

Instructor: Saleem M. Yamani, M.S.

Prerequisites: some experience in Python recommended（建议学生有Python编程基础）

Materials Fee: \$250

Project Management Applied to Data Analytics (24 学时)

Project Management is a methodology that allows for an efficient and effective approach to achieving results. This course will utilize these methodologies starting with Initiation, then Planning, Executing, Monitoring and finally closing out a project. The selected case study used in class will be the application of current data analytics methods taking Big Data and creating innovative solutions to a business problem. Students will perform data-driven discovery and prediction, extracting value and competitive intelligence for their projects. Basic elements of successful Big Data implementation will be covered as well as a review of commercially available tools and technology.

项目管理是一种以结果为导向的有效管理方法。本课程将会教授学生如何从项目的形成、策划、执行、监督、到最后完成的流程管理。课程将会使用选定案例进行研究，并将运用大数据分析，为业务问题形成创新的解决方案。学生将执行数据为依据对项目进行探讨和预测，为项目运作提取有竞争价值的信息。本课程将会涵盖实施大数据运用的基本要素，以及其它审视对现代商业项目运作与高科技管理必要工具的重要性。

Instructor: Martin Wartenberg, M.S., MBA

Materials Fee: \$0

International Finance, Trade, and Supply Chain (24学时)

Whether students plan to work for a global corporation or local business, it is vital to understand the distribution and financial systems of their target markets. In this course, students will discover the impact of the international financial markets in today's global economy and learn how and why international companies use the four financial markets – stock, bond, foreign exchange, and money – to manage their international financial operations. In addition, students will explore the supply chain including physical transportation, infrastructure, inventory and packaging, customs privileged facilities, developing efficient freight pricings, the role of service providers, and marine cargo insurance.

无论学生是计划为全球知名公司还是本地企业工作，了解其目标市场的分发渠道的布局和财务系统是至关重要的。在本课程中，学生将会有机会见识到国际金融市场对当今全球经济的影响，并了解国际公司如何、以及为何使用四个金融市场工具 - 股票，债券，外汇和现金 - 来管理其国际金融业务。此外，学生需要学习整个物流供应链上的各种角色，例如，供应链，包括实物运输、基础设施、库存和包装、海关特权设施、开发有效的货运价格、服务提供商的角色和海上货物保险。

Instructor: Bradley J. Holt, M.P.I.A.

JavaScript Programming (2 units)

JavaScript is the most widely adopted browser language with full integration with HTML/CSS. This course will teach students highly sought after skills of Javascript and web programming. Students will learn how to utilize the power of Javascript by combining it with HTML through the DOM (Document Object Model) in order to build fully functional web applications. The goal of this course is to equip students with practical skills for real-world application, such as best practice idioms and patterns, common programming concepts, advanced language features, and common libraries and tools for web application development.

JavaScript 是现代互联网最广泛采用的浏览器语言，与 HTML / CSS 融为一体。本课程将教授学生高级的 Javascript 和网络编程技巧。学生将学习如何利用 Javascript 的强大功能，通过 DOM（文档对象模型）将其与 HTML 相结合，以构建功能齐全的 Web 应用程序。本课程的目标是为学生提供常用的就业实用技能，例如，最佳实践习语和模式、通用编程概念、高级语言功能以及用于 Web 应用程序开发的通用库和工具。

Instructor: Kevin Hanegan, B.S.

Prerequisites: 1-2 years of university-level programming courses (需至少具备初级大学编程水平)

Intro to Game Design (2 units)

Learn the introductory concepts of gaming and explore how to apply these concepts in Game Design, which include psychology, narrative, platform and interface features and limitations, marketing, computer science, and industry trends. This course will also cover different types of games and the basic mechanics behind them, including concepts, methods, and current practice of software engineering including software life cycle models and principles and techniques for each stage of development. Students will create a game concept and learn what makes a game compelling through lectures, readings, presentations, and implementation. No previous programming knowledge is required.

学习电子游戏的入门概念，探索如何在电子游戏设计中应用这些概念，包括心理学，叙事，平台和界面功能和限制，营销，计算机科学和行业趋势。本课程还将介绍不同类型的游戏及其背后的基本机制，软件工程的观念，方法和当前实践，包括软件生命周期模型以及每个开发阶段的原理和技术。学生将通过讲座，阅读，演示和实施来创建游戏概念并了解游戏的吸引力。学生不需要具备编程知识。

Instructor: TBD

Fashion Design (2 units)

From inspiration to runway: Explore the fashion industry through a hands-on, interactive experience with industry professionals. Learn the fundamentals of great design, tips for capturing inspiration through a camera lens, and sketching techniques that will take your inspired ideas to the pages of a sketchbook. Students will also learn about visual marketing, fashion blogging, and cultural trends that influence fashion design. Students will leave this course with a portfolio of ideas, a completed project, and a network of new friends. This program is for anyone that has an interest in fashion design.

从灵感到作品的放飞：通过与行业专业人士的亲身交流，互动体验，探索时尚产业。了解优秀设计的基本原理，通过相机镜头捕捉灵感的技巧，以及将您的灵感创意带到素描本页面的素描技巧。学生还将学习影响时装设计的视觉营销，时尚博客和文化趋势。学生将在课程中留下一系列创意，一个完整的项目和一个新朋友网络。该计划适用于对时装设计感兴趣的任何人。

Instructor: TBD

Bio Business Enterprise: Medical Devices and Pharmaceutical Products (2 units)

In 2017, the total global biotechnology market was valued at nearly \$415 billion. In this course, students will learn about the latest innovations in medical devices and pharmaceutical products, including how they are developed and regulated. Students will also study real-life commercial successes and regulatory compliance in the US, EU, and AP in order to gain a broad understanding of the complexities of biotechnology commercialization, including organizing pre-market notification 510(k), clinical trial requirements, good manufacturing practices (GMPs), good laboratory practices (GLPs) and labeling requirements. In addition, students will build skills in risk management, marketing, regulatory and intellectual property (IP) strategy.

2017年，全球生物技术市场总价值近4150亿美元。在本课程中，学生将了解医疗设备和医药产品的尖端创新，包括这些产品的开发和监管。学生还将学习美国、欧盟和亚洲现实商业成功和监管规则情况，其内容还会涉及到各种生物技术商业化的开发复杂性，包括组织上市前通知510(k)，临床试验要求、良好制造规范(GMP)、良好实验室规范(GLP)和标签要求。此外，学生还将掌握医疗产品相关风险管理、营销、监管和知识产权(IP)战略方面的技能。

Instructor: TBD

Prerequisites: 1-2 years of university-level Biology or Business courses

INSTRUCTOR BIOGRAPHIES (教授背景介绍)

John Whiteley, Ed.D, Professor of Social Ecology, UCI

John Whiteley earned his Ed.D. at Harvard University and has taught at UC Irvine for over 40 years. He is currently Professor of Environmental Health, Science, and Policy at the School of Social Ecology at UC Irvine. His research focuses on the moral development of late adolescence to early adult development and the social ecology of peace. His publications include *Water, Place, and Equity* (2009) and *Quest for Peace: An Introduction* (1986). He has lead several initiatives for increasing global cooperation, local equality, and sustainability in local and global policies.

约翰怀特利在哈佛大学获得了他的教育学博士学位，并已经在加州大学欧文分校任教 40 多年。他目前是加州大学欧文分校社会生态学院【环境健康，科学和政策】教授。他的研究重点是青春期后期到早期成人发展的道德发展和各种社会生态平衡。他曾经出版的书籍，包括，*Water、Place、and Equity* (2009) 和 *Quest for Peace: An Introduction* (1986)。他在全球领导了多项倡议，以加强全球合作，地方平等以及地方和全球政策在可持续性方面的发展。

Saleem M. Yamani, M.S., Firmware Engineering Manager, Western Digital

Saleem M. Yamani has more than 20 years' experience in the embedded software engineering field. He has worked in design, and implementation of embedded software programming in various high tech industries, which include Computer, Networking and Hard Disk Drives. He has taught C programming language at Saddleback College for 2 years. Currently he has been teaching Embedded System courses at UCI Division of Continuing Education for past 6 years.

Saleem M. Yamani教授在嵌入式软件工程领域拥有超过20年的经验。他是各种高科技行业设计和实施嵌入式软件编程，包括计算机，网络和硬盘驱动器行业领头人。他曾在Saddleback College教授C编程语言2年。目前，他在UCI教授嵌入式系统课程已有6年。

Martin Wartenberg, BSEE, MSEE, MBA, Licensed Professional Engineer (P.E.)

Martin Wartenberg has over 30 years in High Technology Companies in every position from Engineer to Vice President Research and Development and Company Senior Executive (CEO, COO). Martin has taught Project Management, Product Development, Creativity and Innovation at UCI, UCSD and UCSC. He has taught and consulted with companies in Europe, Asia and South America. His experience included; New Product Development, Medical Devices and Instrumentation and Oil Field Instrumentation as well as both Military and Commercial Aerospace. He is currently working with UCI delivering project management courses in the International Accelerated Program as well as delivering classes to companies in the United States and China.

Martin Wartenberg在高科技公司工作超过30年，经历了从工程师到研发副总裁和公司高级管理人员（首席执行官，首席运营官）的所有职业生涯发展过程。Martin曾在UCI，UCSD和UCSC教授项目管理、产品开发、产品创意和创新科研。他曾在欧洲、亚洲和南美洲的公司任教和负责咨询工作。他的工作履历包括；新产品开发、医疗器械和仪器仪表、以及油田仪器以及军用和商用航空航天产品。他目前正在与UCI合作，在其【实习证书】中提供项目管理课程，并为美国和中国的公司提供各种培训课程。

Kevin Hanegan, B.S., Director of Educational Services for TIBCO Software

Kevin Hanegan, is currently is Director of Educational Services for TIBCO Software and the author of 4 programming books: *Building State-of-the-Art Web Pages*, *Custom CGI Scripting with Perl*, *Practical Guide to Curl*, and *Building Solutions with the DecisionSite Analytics Platform*. He has worked for a variety of software companies, universities, and corporate training centers as a course developer, trainer and consultant.

Kevin Hanegan目前是TIBCO Software的教育总监，他曾经出版过4本编程书籍：如果构建最先进的网页、使用Perl定制CGI脚本、使用Curl实用指南、以及使用DecisionSite 分析构建解决方案平台。他曾在各种软件公司、大学和企业培训中心担任课程开发人员、培训师和顾问。

Bradley J. Holt, M.P.I.A., CEO of HSI, LLC.

Bradley J. Holt is the CEO of HSI, LLC an international trade and business development firm. He has two decades of international business experience, over 15 years focused on business development in the Asian marketplace. Prior to HSI, he served as the Asia General Manager of RPM's StonCor Group for seven years, and held management and marketing positions with GN Netcom (a large European communications company), and AT&T. His former clients include Asian and U.S. firms, spanning the fields of manufacturing, distribution, construction and engineering, architecture, design, entertainment, high technology, health care, and consumer products - such as Motorola, AMD, Intel, Budweiser, Lion Nathan, Baxter Healthcare, Glaxo Smith Kline, Roche, 3M, Bechtel, Fluor, L'Oreal, Huafei, Hangzhou TC, and Andrew Telecommunications, etc.

Bradley J. Holt是国际贸易和商业发展公司HSI的首席执行官和合伙人。他拥有20年的国际商务经验，超过15年专注于亚洲市场的业务发展。在加入HSI之前，他曾担任RPM的StonCor集团亚洲区总经理七年，并在GN Netcom（一家大型欧洲通信公司）和AT&T担任管理和营销职位。他的前客户包括亚洲和美国公司，涵盖制造，分销，建筑和工程，建筑，设计，娱乐，高科技，医疗保健和消费产品领域 - 如摩托罗拉，AMD，英特尔，百威，Lion Nathan，Baxter Healthcare，Glaxo Smith Kline，Roche，3M，Bechtel，Fluor，L'Oreal，Huafei，Hangzhou TC和Andrew，Telecommunications等。

Helen Nam, M.A., Instructor, UCI Division of Continuing Education

Helen Nam holds two master's degrees, one in TESOL and the other in Philosophy, both from Biola University with her BA, also in Philosophy, from UCLA. She has experience teaching both on-ground and online English Composition courses at Bethesda University of California. Ms. Nam is a full-time teacher with International Programs and excels in teaching ESL and teacher training courses. Ms. Nam is also very involved in professional organizations. She currently serves on the Board of CATESOL Orange County Chapter including being Coordinator-Elect. She has vast experience organizing, working at, and presenting at professional conferences. She has travelled widely and speaks Korean fluently.

Helen Nam 拥有两个硕士学位，TESOL 与哲学学位。她的两个学位分别来自 Biola 和加州大学洛杉矶分校。她曾经在加州贝塞斯达大学（Bethesda University of California）教授线上和线下英语作文课程。Nam 女士是 UCI 的全职讲师，擅长教授 ESL 和教师培训课程。Nam 女士也非常积极参与行业专业组织。她目前在 CATESOL Orange County 分会的董事会任职，协调工作。她在组织，工作和参加专业会议方面拥有丰富的经验。她有丰富的旅行游历经验，并且能说流利的韩语。

Emily Wong, M.A., Instructor, UCI Division of Continuing Education

Emily Wong has been teaching ESL/EFL for nearly 10 years. She is a full-time teacher in UC Irvine Division of Continuing Education's International Programs unit and excels in any ESL or teacher-training class she is teaching. In addition, Ms. Wong is Involved in a myriad of professional development projects, most notably a teacher-training podcast that she is currently developing. Ms. Wong received her M.A. in TESOL from Teachers College in New York City. She has lived in Hong Kong and previously taught in Japan. In addition to English, she speaks Cantonese, Japanese, and Mandarin.

Emily Wong已经教授ESL / EFL近10年。她是UCI的全职讲师，擅长任教她的ESL或教师培训课程。此外，黄女士参与了无数的专业发展项目，她最出色的工作就是开发教师培训播客。黄女士在纽约师范学院的TESOL获得了M.A.她曾在香港生活，之前曾在日本任教。除英语外，她还会讲粤语，日语和普通话。