**Experience University Research Online**

**大学科研在线课程**

**January 9 – March 13,2021**

**April 3 – June 5,2021**

**Overview课程概览**

Experience University Research (EUR) online courses allow students from around the world to take college-level coursework at a Top 10 public university. All classes will consist of mostly synchronous Zoom sessions in which students can listen to lectures and ask questions. Assignments and recordings will also be posted for students to view at anytime. Between classes, students will complete assignments and participate in break-out sessions to collaborate remotely with classmates, building practical skills, gaining invaluable experience, and becoming better prepared to attend a competitive university. **Students may enroll in multiple courses in any quarter**.

通过EUR科研在线课程，世界各地的学生都可体验排名美国前十的公立大学课程。所有课程基本都通过Zoom直播，学生听课同时实时提问。作业和授课录像也会提供给学生复习。在课程期间，学生需要完成作业，跟不同地区的同学进行远程分组会议，培养实践技能，并且获得宝贵的远程工作经验。**学生可注册不同学期多门课程**。

Schedule subject to change at University’s discretion.

课程安排如有更改，以大学最终决定为准。

All courses taught in English. iBT TOEFL score of 60 recommended.

所有课程均为英语授课，建议学生有托福iBT 60分英语水平。

**Web Programming w/ HTML, CSS & JavaScript（网络程序设计，HTML, CSS和JavaScript）**

Units: 2.5 (25 hours total)

Description: This course provides intermediate level knowledge and skills for web development, along with an introduction to basic programming concepts and the three web development languages: HTML, CSS, and JavaScript. Furthermore, students of this course will learn how to apply these languages to create web-based applications. An introduction to more advanced topics such as prototypal inheritance, software frameworks, and software development tooling will be covered.

课程描述：提供中级水平的网络开发知识和技能，同时介绍基本的程序设计概念和三种网络开发语言:HTML、CSS和JavaScript。此外，学生将学习如何应用这些语言来创建基于网络的应用程序。

**Advanced Writing Composition for STEM（STEM高级写作）**

Units: 3 (30 hours total)

Description: Effective writing is crucial to success in any field. In this course, 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 academic writing. By the end of the course, students will be expected to identify the writing process, evaluate and use various types of evidence, identify and use effective prose, engage with others’ ideas, and properly cite sources.

课程描述：有效的写作在任何领域都是成功的关键。在本课程中，学生将学会根据不同目的(说明性、分析性和议论文性)、观众和场合有效地开发和表达观点。学生也将学习在学术写作中使用各种修辞策略。在课程结束时，学生将能对写作过程有一个深刻的认知，学会评估和使用各种类型的素材，运用有效的文章，结合他人的观点，并适当地引用材料来源。

**Intro to Sustainability（可持续发展）**

Units: 2.5 (25 hours total)

Description: We learn from an early age that humans depend on the natural environment for survival and to fulfill basic needs (e.g. water, food, shelter). However, our relationship with nature has deeply changed over the last century. Human’s negative impacts on the environment have made it impossible for a number of plants and animal species to survive. Currently, scientific research suggests that our own ability to survive may be compromised. This interdisciplinary course focuses on a broad range of topics related to the interaction between humans and the environment, from the individual to the global level. It prepares students to understand and analyze the most pressing issues facing humanity today.

课程描述：我们从小就知道，人类依靠自然环境生存和满足基本需求(如水、食物、住所)。然而，我们与自然的关系在上个世纪发生了深刻的变化。人类对环境的负面影响已经使一些植物和动物物种无法生存。目前，科学研究表明，我们自身的生存能力可能受到损害。这门跨学科课程的重点是从个人到全球的范围人类与环境之间的互动。培养学生理解和分析当今人类所面临的最紧迫的问题。

**Business Project Management with Data Analytics（数据分析与商业项目管理）**

Units: 2

Description: 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. They will also learn the process of innovation and think like an entrepreneur by leveraging predictive analytics to bring their vision to success. Basic elements of successful Big Data implementation will be covered as well as a review of commercially available tools and technology.

课程描述：本课程将以数据分析为基础，然后计划，执行，检验，最后完成项目。在课堂上使用的案例研究，将是当前数据分析方法的应用，采用大数据和创建新颖的方案来解决商业问题。学生将进行数据驱动的开发和预测，为他们的项目提取价值和竞争情报。学生还将学习创新的过程，并像企业家一样通过预测分析来实现他们的愿景。课程将介绍成功实施大数据的基本要素，以及对商业上可用的工具和技术的审查。

**JavaScript Programming for Web Development（JavaScript程序设计）**

Units: 2.5 (25 hours total)

Description: Learn how to make web pages more exciting and compelling by adding interactive features that react to externally-driven events. This introductory level course covers the fundamental concepts needed to write simple scripts in JavaScript and prepares students for further study in web programming. Using the jQuery library, one of the most popular JavaScript libraries, students will learn about event handling and how to perform in-browser manipulation of the Document Object Model (DOM). Additional tools covered include JavaScript Object Notation (JSON), which is commonly used as a syntax to exchange data between code running on the server (i.e. in PHP) and code running in the browser.

课程描述：了解如何通过添加对事件驱动作出反应的互动功能，使页面更加令人感兴趣和引人注目。这门入门级课程涵盖了用JavaScript编写简单脚本所需的基本概念，并为学生进一步学习网络程序设计做准备。使用最流行的JavaScript库之一jQuery库，学生们将学习事件处理以及如何在浏览器中执行文文件对象模型(DOM)操作。其他工具包括JavaScript对象表示法(JSON)，它通常被用作在服务器上的代码(比如PHP)和运行在浏览器中的代码之间交换数据的语法。

**Public Speaking （公众演讲）**

Units: 3 (30 hours total)

Description: Effective communication is crucial to success in any field. In this course, students will learn the practical skill of public speaking, including techniques to lessen speaker anxiety, and the use of visual aids to enhance speaker presentations. In addition, students will learn to adapt a speech for different occasions and audiences, how to effectively support ideas, and how to select and organize materials in preparation for a speech.

课程描述：有效的沟通在任何领域都是成功的关键。在本课程中，学生将学习公共演讲的实用技巧，包括缓解演讲者焦虑的方法，以及使用视觉辅助来提高演讲者的演讲效果。此外，学生将学习如何根据不同的场合和听众修改演讲稿，如何更生动地展示观点，以及如何选择和组织材料为演讲做准备。

**Expressive Design for IoT Devices and Robotics（物联网设备和机器人设计）**

Units: 3

Description: 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’ 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 build and program robotic cars and work together remotely to solve problems. The course will culminate in a competition, putting students’ programming and designs to the test. May the best robot win!

课程描述：在Python、计算机硬件和物联网设备方面的技能有许多应用，并且非常受欢迎。本课程的目标是培养学生在这些领域的技能，学生用树莓派单板计算机设计和程序设计机器人，并让机器人来完成一系列预先确定的任务。在此过程中，学生将搭建树莓派的环境，使用基于python IDE(集成开发环境)的树莓派，并学习计算机硬件。学生们将制造机器人汽车并编写程序，并远程合作解决问题。课程的高潮将是一场竞赛，对学生的程序设计和设计进行测试。最好的机器人将会赢得比赛。

**International Finance（国际金融）**

Units: 2

Description: To succeed in the expanding international economy, business professionals must learn about the role and impact of international financial markets. This class begins with the history and structure of the international monetary system. Topics build on this foundation with a focus on the forces that drive exchange rates as well as international trade and investment; international financial risks and the protection that can be achieved through the use of financial derivatives. The course also emphasizes some of the most important financial techniques used by multinational firms to manage their international financial operations.

课程描述：为了在不断扩大的国际经济中取得成功，商业专业人士必须了解国际金融市场的作用和影响。本课程从国际货币体系的历史和结构开始。主题在此基础上展开，重点关注推动汇率和国际贸易和投资的力量;国际金融风险和通过使用金融衍生工具可以实现的保护。课程还强调了跨国公司管理其国际金融业务所使用的一些最重要的金融技巧。

**Intro to Machine Learning & AI（机器学习及人工智能）**

Units: 2.5 (25 hours total)

Description: This course introduce concepts and topics essential to AI and Machine Learning. Topics covered include predictive analytics algorithms, artificial neural networks, data analysis, and data mining. Students will explore design, architecture, and applications of networks for practical applications. Students will also learn how artificial neural networks, such as multilayered perception, are implemented using Python.

课程描述：本课程介绍人工智能和机器学习的基本概念和主题。涵盖的主题包括预测分析算法、人工神经网络、数据分析和数据挖掘。学生将探索网络的设计、架构和实际应用。学生还将学习如何使用Python实现人工神经网络，如多层感知。

**Speech & Debate（演讲和辩论）**

Units: 3 (30 hours total)

Description: Understanding of the basic principles of argumentation and debate is fundamental to the education of the individual as well as to the civic health of society. In this course, students will research and present arguments on current issues, learn case construction, refutation, and cross-examination techniques. In addition, this course will help students to construct, analyze and evaluate claims. Learning from classical and contemporary examples, students will develop a range of strategies to strengthen their critical competence.

课程描述：理解论证和辩论的基本原则，对于个人的教育和社会的公民健康都是至关重要的。在这门课程中，学生将研究和提出当前问题的论点，学习案例构建、反驳和交叉诘问技巧。此外，本课程将帮助学生建构、分析和评估索赔要求。从古典和当代的例子中学习，学生将发展一系列的策略来加强他们的批判能力。

**Tentative Instructor Biographies讲师介绍**

**Majed Al-Ghandour, PhD**

Dr. Majed Al-Ghandour has a PhD in Engineering from NC State University and teaches for UCI- Division of Continuing Education (DCE), NCSU, and Wake Technical Community College for over 24 years. Majed teaches several courses at UCI, Continuing Education including Introduction to Data Science, Data Engineering, and Introduction to Machine Learning, and Docker Fundamentals with AWS. Majed also teaches Data Analytics for MBA Graduates as a Visiting Lecturer for NCSU. He has extensive experience in data analytics, machine learning, and cloud computing.

Majed Al-Ghandour博士拥有北卡罗来纳州立大学工程博士学位，在UCI继续教育学院(DCE)、NCSU和Wake技术小区学院任教超过24年。Majed在UCI继续教育学院教授几门课程，包括数据科学导论、数据工程和机器学习导论，以及使用AWS的Docker基础。Majed还作为NCSU客座讲师为MBA研究生教授资料分析。他在数据分析、机器学习和云计算方面有着丰富的经验。

**Linda Gruen, PhD**

Linda Gruen holds a PhD in Spanish, two teaching credentials, and two master’s degrees, one in Spanish and one in Teaching Second Language. She has taught lower division writing courses at UC Irvine.

Linda Gruen拥有西班牙语博士学位，两个教学资格证书，和西班牙语和第二语言教学的研究生双学位。她在加州大学欧文分校教授低年级写作课程。

**Bradley J. Holt, MPIA**

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HSI, LLC的首席执行官，该公司是一家国际贸易和业务发展公司。他有20年的国际商业经验，15年的时间专注于亚洲市场的商业发展。在加入HSI之前，他曾担任RPM斯通科集团亚洲总经理7年，并在GN Netcom(一家大型欧洲通信公司)和美国电话电报公司担任管理和营销职位。他以

前的客户包括亚洲和美国公司，横跨制造、分销、建筑和工程、建筑、设计、娱乐、高科技、医疗保健和消费品领域，如摩托罗拉、AMD、英特尔、百威、Lion Nathan、百特医疗保健、Glaxo Smith Kline、Roche、3M、Bechtel、Fluor、欧莱雅、华飞、杭州TC和Andrew电信等。

**Christian V. Hur, MS**

Christian V. Hur is an instructor and author who holds a Master of Science in Computer Information Systems with a concentration in Web Application Development from Boston University. His career in web technologies spans over 20 years and he has taught computer programming and web development courses at both the undergraduate and graduate level. In industry, he has built websites and web-based applications using various web technologies throughout his career. In addition to authoring books published by MC Press, he produces online training courses for Lynda.com and Packtpub.com. In his spare time, he enjoys exploring new web technologies, learning AR/VR and game development, and contributing to Stack Overflow and Quora.

Christian V. Hur是一名教师和作家，拥有波士顿大学计算机科学信息系统网络应用程序开发硕士学位。他在网络技术领域的职业生涯超过20年，他教授过本科和研究生阶段计算机程序设计和网络开发课程。在工业领域，他在整个职业生涯中使用各种望楼技术建立了网站和基于网络的应用程序。除了撰写由MC Press出版的书籍外，他还为Lynda.com和Packtpub.com提供在线培训课程。在他的业余时间，他喜欢探索新的网络技术，学习AR/VR和游戏开发，并为Stack Overflow和Quora做贡献。

**Steven Keener, DBA**

Steven J. Keener, DBA is President and Founder of Business Financial Solutions, Inc. of Orange County California. He consults on international markets and furnishes a complete financial package to small entrepreneurial base companies. He has had executive levels accountabilities with major International Corporations and has planned, executed and implemented business strategies for acquisitions, partnerships, global sourcing, marketing and numerous relocations of companies in foreign and domestic countries. He has taught at the University of California, Irvine since 2009 emphasis on International Markets, Finance, and Business.

Steven J. Keener, DBA是加州奥兰治县商业金融解决方案公司的总裁和创始人。他提供国际市场咨询，并为小型创业公司提供一整套财务服务。他曾在大型国际公司担任高管职务，并曾策划、执行和实施商业战略，包括收购、合作、全球采购、市场营销和众多国内外公司的搬迁。自2009年以来，他一直在加州大学欧文分校(University of California, Irvine)任教，教学重点是国际市场，金融和商业。

**Karen Nguyen, MS, PMP, CSM**

Karen Nguyen has over 20 years of experience in practicing and teaching traditional and agile project management framework, principals, and theories. She also has an extensive experience managing a large

portfolio of enterprise-based systems along with overseeing corporate strategic planning and development of national improvement initiatives to increase customer satisfaction, service profitability, and customer retention. Her passion is to deliver value and equip students with a distinctive blend of program management along with leadership skills for real-world experience and application. Karen is a recipient of the UCI Division of Continuing Education Alumni of the Year, SoCal Most Powerful & Influential Woman of Diversity, and Phi Kappa Phi Honor Society for Academic Excellence.

Karen Nguyen在传统和敏捷项目管理框架、原则和理论方面有超过20年的实践和教学经验。她在管理基于企业的大型系统组合，并监督企业战略规划和国家改进措施的发展，以提高客户满意度、服务盈利能力和客户保留率拥有丰富的经验。她乐于为学生提供价值，并为学生提供独特的项目管理和领导技能，以获得真实世界的经验和应用。Karen是UCI继续教育学院年度校友奖的获得者，南加州最具影响力的多元化女性，以及优等生荣誉学会的获得者。

**Saleem M. Yamani, MS**

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 is a Firmware Engineering Manager at Western Digital and has been teaching Embedded System courses at UCI Division of Continuing Education for the past 6 years.

Saleem M. Yamani在嵌入式软件工程领域有超过20年的经验。他曾在各种高科技行业(包括计算机、网络和硬盘驱动器)从事嵌入式软件程序设计的设计和实施工作。他在Saddleback College教过2年C程序设计语言。目前，他是Western Digital的固件工程经理，在UCI继续教育学院教授嵌入式系统课程已经有6年了。

**Juliana Zanotto, PhD**

Dr. Juliana Zanotto is a lecturer and assistant specialist at the School of Social Ecology, University of California, Irvine. Her research focuses on urban planning practice amidst neoliberal globalization, and its connection to inequality, sustainability, and suburbanization. She has been particularly interested in studying the role of planning in advancing regressive social and environmental issues, particularly in the Global South. She is also interested in exploring qualitative methodologies to connect theory and practice. She has taught in the areas of spatial analysis, urban design, inequality, and environmental issues.

Juliana Zanotto博士是加州大学欧文分校社会生态学学院的讲师和助理专家。她的研究集中在新自由主义全球化中的城市规划实践，以及它与不平等、可持续性和郊区化的联系。她特别感兴趣的是研究规划在促进退化的社会和环境问题方面的作用，特别是在全球南方。她对探索将理论与实践联系起来的定性方法也很感兴趣。她的教学领域包括空间分析、城市设计、不平等和环境问题。