

# 东 华 大 学

## 暑期课程手册

教务处

二零二二年六月

# 前言

为进一步深化教育教学改革，提高人才培养质量，拓宽学生视野，实现学生多样化学习体验，本学期暑期继续面向本科生开设暑期国际课程及专业大师课程，共计 13 门。

课程开设目标：

## **1. 引进优质课程资源，拓展学生视野**

通过开设暑期国际课程及专业大师课程，实现学生不出校门即可享有聆听国内外知名教师（工程师）授课的机会，拓宽学生国际视野，满足高层次复合型人才培养的需求。

## **2. 强化课程建设，激发学生内驱力**

通过开设国际课程和专业大师课程，强化课程建设，扩展教学环节，进而提升学生课堂参与度，激发学生学习的内驱力，培养学生创造性思维和独立研究能力的的能力。

## **3. 推动教学方式变革，提升教师教学能力**

通过暑期课程这个学习交流的平台，本校教师将得以方便地旁听国内外的知名教师（工程师）所开的课程，能促进教师优化教学模式，创新教学方法，进而提升教师能力，实现教学模式多样化。

# 目录

微电影/微纪录片艺术和技术 .....	1
现代纺织科技及产品 .....	3
羊毛纤维与产品创新 .....	4
循环时尚家居设计 .....	6
服装 3D 数字化技术与实践 .....	9
包容性设计 .....	11
AB 测试与因果分析 .....	13
大漆艺术赏析与素髹漆器制作 .....	15
文化邂逅与设计研究 .....	17
线性系统状态估计 .....	20
纳米医学：从指导原则到诊疗纳米材料工程 .....	23
日本语言文学文化导读 .....	25
环境毒理学和物理辐射 .....	27

# 微电影/微纪录片艺术和技术

## Arts and Techniques of Micro-movies/Micro-documentaries

课程名称：“微电影/微纪录片艺术和技术”

开课学院：人文学院

开课教师：史蒂夫·赖斯 Steve Rice 职称：副教授

章于炎 Ernest Zhang 职称：副教授、主任

课程代码：020069 学分：1

选修人数：100

开课时间：2022.7.18 - 2022.7.23、2022.8.8-2022.8.9

### 教师简介：

史蒂夫·赖斯是密苏里新闻学院媒体融合系的副教授，担任多门媒体融合核心课程的教授，比如：《多媒体报道基础》《移动设备新闻》和《微纪录片/微电影》等。这些课程面向新闻传播的专业学生，广泛而深入地教授视频、音频、摄影、有声音的幻灯片、网络和社交媒体方面的基本知识、技术和艺术。

Steve Rice is an associate professor in convergence journalism. Among the courses he teaches are “The Fundamentals of Multimedia”, “Micro-docs/Micro-movies”, and “Mobile Journalism”, which give students a wide overview and in-depth analysis of the skills and arts needed for video, audio, still photography, audio slide shows, Web, and social media.

章于炎博士简历。章博士是密苏里新闻学院环球交流项目中心中国合作项目部主任。章于炎曾任《广州日报》政文部副主任、《广州英文早报》副主编和广州日报集团办公室副主任，2002年在密苏里新闻学院获硕士学位，2008年5月在该院获博士学位。章于炎的博士研究方向为媒体融合、媒体集团管理、媒体经济学、危机传播和国际新闻学，章于炎为美国AEJMC(全美新闻与大众传播教育协会)、ICA(国际传播协会)、NCA(全美传播协会)和CCA(中国传播协会-[美国])会员,曾有多篇论文在以上协会的学术年会上宣读和演示并在美国、亚洲和中国的新闻传播核心刊物上发表。

Dr. Ernest Zhang is currently the China Program Director at the Missouri School of Journalism. Zhang spent six years in China as editor and reporter. While working with the Guangzhou Daily Press Group, he acted as deputy director of the Political and Cultural News Department and managing editor of other departments. In 2002, he earned his master's degree from MSJ. Zhang's doctoral research interests focus on media convergence, media management, media economics, crisis communication, and international communication. In May 2008, he got his doctorate by defending his dissertation titled "Examining Media Convergence: Does It Also Converge Good Journalism, Economic Synergies and Competitive Advantage?"

#### 课程简介：

在媒体融合的语境下，短视频在网上和社交媒体等数字媒体平台上日趋流行。本课程认为讲授和研讨微电影/微纪录片艺术和技术，是为提高数字媒体平台上短视频的质量的关键之举。所以本课程重在教授学生如何掌握和提高制作不超过 3 分钟长的微纪录片和微电影的技术和艺术，以及相关如何使用其拍摄和录音的常用设备。帮助老师和学生理解这一新闻传播学院新方向的重要性。

In the context of media convergence, it is a vogue that short videos are more and more popular on such digital media platforms as the Internet and social media. In order to improve the quality of those short videos, this course thinks it is a key resolution to popularize micro-documentaries and micro movies on the digital media platforms. The lectures and discussions of this course's topics of the interviewing, shooting, editing, producing skills and arts and equipment used by micro-movies and micro-docs will help faculty members and students understand the importance of this new major to a school of journalism and communication.

# 现代纺织科技及产品

## Modern Textile Technology and Products

课程名称：现代纺织科技及产品

开课学院：纺织学院

开课教师：周家德/曹宗华 职务：首席技术官/工程师、供应链中心顾问

课程代码：040006 学分：1

选修人数：100

开课时间：2022.7.4、2022.7.6 - 2022.7.8

教师简介：

周家德简介：

周家德博士毕业于美国纽约大学化学工程系。普林斯顿纤维研究所博士后。

周博士致力于纤维科学，复合材料及涂料的研究与开发，拥有近 30 年的行业及学术经验，在其研究领域至今先后获得美国专利 26 项，目前国内申请专利 10 余项，并公开发表科技专业文献 50 余部，制订及修订国际准则和标准 20 余项。

曹宗华简介：

波司登羽绒服装有限公司（供应链中心顾问）

全国服装标准化技术委员会羽绒服装分技术委员会秘书长

IDFB（国际羽绒羽毛局）技术委员会委员

课程简介：

课程将针对现代纺织科技及产品，讲解各种在刚性和柔性复合材料、先进的纺织品和涂层产品的开发和解决问题的案例，为学生提供一个深入学习的平台；同时将着重介绍羽绒服装产业的现状、发展趋势及羽绒服产品开发路线，以及羽绒的舒适、健康、安全、经济等特性。

# 羊毛纤维与产品创新

## Wool Fiber and Product Innovation

课程名称：羊毛基础教育课程

开课学院：纺织学院

开课教师：Allan De Boos 职务：项目经理

课程代码：048993 学分：1

选修人数：100

开课时间：2022.7.4 - 2022.7.7

教师简介：

Allan De Boos 博士毕业于新南威尔大学（纺织技术-化学）和曼彻斯特维多利亚大学（物理化学系）。1968-2002 年，他受雇于 CSIRO（联邦科学与工业研究组织）羊毛技术部，从事羊毛和羊毛混纺织物的化学和机械整理研究。

在 CSIRO 期间，他与织物和服装制造商（尤其是意大利和英国）密切合作，开发了用于毛织物和服装制造的织物目标测量的 Sirofast 等系统。

在过去的 15 年里，Allan 一直致力于澳大利亚羊毛创新方面的工作，目前是高等 Woolmark（纯羊毛标志）羊毛教育课程的项目经理。在过去的四年里，他在烟台南山大学任教 Woolmark（纯羊毛标志）课程，并被评为“特聘教授”。Allan 也通过迪肯大学（澳大利亚）的员工，在中国其他几所纺织类高校中，管理开设 Woolmark（纯羊毛标志）课程。

Dr Allan De Boos is a graduate of the University of NSW (Textile Technology - Chemistry) and the Victoria University of Manchester (Dept Chemical Physics). He was employed by CSIRO Division of Wool Technology from 1968-2002 conducting research into the chemical and mechanical finishing of wool and wool-blend fabrics.

While at CSIRO he worked closely with fabric and garment manufacturers, particularly in Italy and the UK, on the exploitation of SiroFAST and other system for fabric objective measurement for wool fabric and garment manufacturing.

Over the last 15years Allan has worked for Australian Wool Innovation and is

currently the Programme Manager responsible for Woolmark Wool Education Course at tertiary level. Over the past four years, he has delivered units of the Woolmark Course at the Yantai-Nanshan university in Nanshan, China, where he now holds the post of 'Distinguished Professor'. Allan also manages the delivery of units of the Woolmark course at several other textile-related universities in China by staff from Deakin University (Australia).

#### 课程简介：

“羊毛鉴别”是让学员了解什么是羊毛纤维、它从哪里来和如何把它制作成各种各样产品的初级介绍性课程。本课程还会介绍近期一些与羊毛产品相关的创新技术。本课程主要针对纺织科学与工程、时装与纺织设计以及纺织制造领域的高级学员。它涵盖了羊毛纤维的特性、纱线和织物形成过程、质量评估和售后服务问题。

The Wool Fiber and Product Innovation is an introductory-level course that provides participants with a foundational understanding of the wool fibre, what it is, where it comes from and how it is made into a wide range of products. Some recent innovations in wool products will also be introduced in this course. The course is primarily aimed at tertiary-level participants studying within the fields of textile science and engineering, fashion and textile design, and textile manufacturing. It covers the properties of the wool fibre, processes used on the formation of yarn and fabrics, assessment of quality and issues of aftercare.



# 循环时尚家居设计

## Recycle Design for Fashion Home Furnishing

课程名称：循环时尚家居设计

开课学院：上海国际时尚创意学院

开课教师：Helena Hyvönen 职称：教授

Tapani Hyvönen 职称：教授

课程代码：050073 学分：1

选修人数：20

开课时间：2022.7.11、7.15、7.18、7.22

教师简介：

Helena Hyvönen

阿尔托大学教授，前阿尔托大学阿尔托艺术设计与建筑学院院长。作为国际顶级时尚设计大师与时尚设计教育先驱，在其研究领域具有颇高的艺术造诣，享有极高的行业声誉与影响力。她在时尚设计领域与时尚教育领域取得了突破式的成就，并将先进的技术与设计理念融入上海，致力于推广可持续设计与环保时尚文化教育的全球发展，提出“设计服务于社会”，并将该理念融入上海与芬兰的国际化时尚人才培养体系，为探索跨学科的时尚创意人才做出了巨大贡献。她积极关注并组织社会公益活动，承担了重要的社会责任。在2016年获得“白玉兰纪念奖”之后，在深入推动上海时尚创意跨学科人才培养和持续推进上海时尚产业的国际交流与合作做出了巨大贡献。

Professor of Aalto University and former dean of Aalto School of art, design and architecture of Aalto University. As the world's top fashion design master and fashion design education pioneer, she has high artistic attainments in the research field and holds high industry reputation and influence. She has made breakthroughs in the field of fashion design and fashion education, integrated advanced technology and design concepts into Shanghai, committed to promoting the global development of sustainable design and environmental protection fashion culture education, proposed

"design serves the society", and integrated this concept into the international fashion talent training system of Shanghai and Finland, making great contributions to the exploration of interdisciplinary fashion creative talents. She actively pays attention to and organizes social public welfare activities and undertakes important social responsibilities. After winning the "Magnolia Memorial Award" in 2016, it has made great contributions to the in-depth promotion of interdisciplinary talent training of Shanghai fashion creativity and the continuous promotion of international exchanges and cooperation in Shanghai fashion industry.

#### Tapani Hyvönen

教授，国际著名工业设计大师，红点奖等国际设计大赛评委。以其在设计思维和智能可穿戴设计领域深厚的造诣为中国可持续时尚发展助力。2019 年度建设了“SCF-HYDE 大师工作室”，深化 SCF 国际化“产学研用”模式，积极建立与其他大学、学院的合作。引入国际最优秀的设计、教学理念以及最新的创新概念，在家具设计、时尚材料、纺织品设计、新课程教学模型及材料产品等多个领域启动 实践项目，参与学院跨学科人才培养项目，为学院课程体系规划与建设，国际化 人才培养贡献力量。

Professor, international famous industrial design master, judge of international design competitions such as red dot award. With his profound attainments in the field of design thinking and intelligent wearable design, it helps China's sustainable fashion development. In 2019, the "SCF-Hyde Master Studio" was built to deepen the "production, study, research and application" mode of SCF internationalization, and actively establish cooperation with other universities and colleges. Introduce the best international design, teaching concepts and the latest innovative concepts, start practical projects in many fields such as furniture design, fashion materials, textile design, new curriculum teaching model and material products, participate in the interdisciplinary talent training project of the college, and contribute to the planning and construction of the college's curriculum system and the training of international talents.

### 课程简介：

工作坊以羊毛、聚酯纤维、丝绸等回收面料为材料，以时尚家居单品为载体，以提高设计师与消费者的环保意识为目的，鼓励学生调研践行可持续理念的品牌，应用回收再生的材料，通过家居用品的创新设计，打造舒适健康、可持续的生活理念。

The workshop takes recycled fabrics such as wool, polyester and silk as material, fashionable household items as the carrier, and aims to improve the environmental awareness of designers and consumers. Students are encouraged to investigate and brands with the concept of sustainability, apply recycled materials, and create a comfortable, healthy and sustainable life concept through the innovative design of household products.

# 服装 3D 数字化技术与实践

## The Technologies and Applications of 3D Fashion

课程名称：服装 3D 数字化技术与实践

开课学院：服装与艺术设计学院

开课教师：William Tan 职务：中国区董事总经理

陈毓华 职务：R&D 负责人

刘海峰 职务：Studio 负责人

沈航 职务：Tech 专员

课程代码：060297 学分：1

选修人数：不限

开课时间：2022.7.4 - 2022.7.8

教师简介：

William Tan 陈威廉：布络维科技中国区董事总经理

陈威廉自 2021 年起获委任为国际服装 3D 科技引领企业布络维科技驻中国区董事总经理，负责公司于大区商务及研发业务。他先后毕业于美国康奈尔大学及英国牛津大学。加入布络维前，威廉曾于中国大型百货集团担任自营品牌总经理，再之前于国际采购供应链巨头香港利丰集团担任副总裁，于利丰时职务横跨供应链金融、国际时尚采购、及国际电商品牌柔性供应链等事务，因此对全球时尚供应链有深度专业经验。威廉也有丰富的教学经验，曾受邀新加坡，美国，德国，及瑞士顶尖学府任客座讲师。他职业生涯始于已故设计、建筑大师及普利茨克奖得主女爵士扎哈·哈迪德（Dame Zaha Hadid）驻伦敦工作室，专于国际高端设计及 3D 科技项目。

陈毓华：布络维科技中国区研发总监，美国西弗吉尼亚大学、吉林大学计算机硕士。超过 7 年的智慧服装制造的系统研发、战略与业务咨询及创业经验；超过 20 年的电商、互联网、物联网、智慧制造与企业信息化、数字化的开发、咨询、教育与创业经验；超过 10 年美国硅谷高科技公司从业经验，曾就职美国惠普科技，eBay 等高科技公司。

刘海峰：布络维科技中国区 Studio 团队负责人。从事创意设计领域 19 年，喜欢与时俱进的学习设计学的新知识和理念。

沈航：布络维科技资深 3D 产品专家。

Browzwear：资深 3D 技术，七年国内一线设计师品牌制版师工作经历，丰富的服装行业经验，擅长服装数字化孪生。

#### 课程简介：

数字化是服装产业发展的一个重要方向，本课程将从服装3D数字化设计入手，系统地涵盖从服装数字化3D技术的基本原理、3D服装数字化的设计、建模、操作，直到生成服装的3D渲染和视频3D服装软件工具的操作，以及数字化的服装产业前景、人才需求及人才培养等，讲述和介绍围绕3D服装数字化的各个领域。拓展学生们对于服装数字化的了解，为他们未来在服装数字化领域的发展奠定基础。

Digitization is one of the most important trends in fashion industry. This course will systematically cover most topics of digitization start from the fundamental 3D technologies, the utilization for the 3D tools, the building of the 3D model, the simulation, the rendering and the 3D animation, all the way to the vision of fashion in virtual world and the possible career path of 3D digitizer. It will bring the knowledge of fashion digitization and lay a solid foundation for their development in this promising domain.

# 包容性设计

## Inclusive Design

课程名称：包容性设计

开课学院：服装与艺术设计学院

开课教师：Cruz Guerra Christian Francisco 职称：教授

课程代码：062494 学分：1

选修人数：25

开课时间：2022.8.18-8.20

教师简介：

Cruz Guerra Christian Francisco

-1999 Bachelor of Graphic Design. School of Design, University of Chile, Chile

-2006 Master of Visual Communication Design. Graduate School of Design, Kyushu University, Japan

-2009 Doctor of Visual Communication Design. Graduate School of Design, Kyushu University, Japan

-2010 Lecturer. School of Design, Sojo University of Kumamoto, Japan.

-2015 Associate Professor. Faculty of Global and Science Studies, Yamaguchi University, Japan

课程简介：

“每个人都可能在人生的某个阶段经历残疾”，视力变差、骨折、划破手指等“暂时性残疾”的情形都会给你的生活带来不同程度的影响。因此，包容性设计和我们每个人的生活都息息相关。作为当代设计师，我们有责任和义务树立包容的设计态度，为更广大的用户提供更好的设计。

本课程将邀请国外包容性设计专家前来授课，通过介绍国际前瞻设计理念及方法，达到培养学生们包容性设计情怀的目的。该课程将结合包容性设计理论和案例，运用设计思维创新流程，通过一定的课题训练让学生在短时间内理解该理念并能将其运用在设计实践中。

“Everyone would be disabled at some point in your lives”. Temporary disability, such as vision loss, fracture and injured fingers, will affect your life in different degrees. So, inclusive design is closely related with everybody. As contemporary designers, we should be responsible and committed to establishing inclusive design attitude, to offer a better design for a wider group of people.

This course will invite two Japanese experts of inclusive design to give lectures to our students. The aim of this course is to build up the inclusive design sense through introducing the international frontier design idea and methods. The course will include the philosophy of inclusive design, inclusive methods and cases. Besides, a design theme based on inclusive design will be exercised for students to apply the design philosophy.

# AB 测试与因果分析

## AB Test and Causal Analytics

课程名称：AB 测试与因果分析

开课学院：旭日工商管理学院

开课教师：王刚 职称：副教授

课程代码：070063 学分：1

选修人数：20

开课时间：2022.7.18-7.21

教师简介：

Gang Wang is an Associate Professor of management information systems (MIS) at the Lerner College of Business & Economics, the University of Delaware. He received his Ph.D. degree in Operations and Information Management from the University of Connecticut. His research interests include online social influence, multi-sided e-markets, and digital transformation and regulation. His research has been published in MIS Quarterly, Information Systems Research, Decision Support Systems and other premier academic journals. He currently serves as an Associate Editor at Decision Support Systems.

王刚是美国特拉华大学经济管理学院管理信息系统副教授。他获得康涅狄格大学管理学博士学位，主要研究领域包括线上社交影响、多方商务平台、数字化转型和政府监管。其研究成果发表于 MIS Quarterly, Information Systems Research, Decision Support Systems 等国际知名期刊，目前担任 Decision Support Systems 副主编。

课程简介：

本课程是基于数据进行因果分析的初级课程。通过本课程的学习，学生将了解因果推断的概念，并掌握在互联网中常用于产品开发的 AB 测试法。课程将通过真实商务案例介绍 AB 测试的概念、测试设计、数据分析，以及常用的匹配方法。同时，本课程将通过课堂练习使学生掌握 R 软件的基本操作。



This course is an introduction to data-driven causal analytics. Students will learn the concept of causal inference and popular methods for causal analytics. In this course, we start by introducing AB tests using real-world business examples, then demonstrate how to design an AB test, and how to conduct data analysis from an AB test. Finally, matching methods will be discussed. The goal of this course is to help students understand and conduct causal analytics using data. R will be used in this class and homework assignments. Related tutorials on the program will be given in class.

# 大漆艺术赏析与素髹漆器制作

## Appreciation of Lacquer Art and Production of Plain

### Lacquerware

课程名称：大漆艺术赏析与素髹漆器制作

开课学院：机械工程学院

开课教师：苑黛曼 职务：创始人

瞿德华 职务：合伙人

课程代码：087046 学分：1

选修人数：20

开课时间：2022.7.4 - 2022.7.8

教师简介：

苑黛曼：法国第三代大漆传承匠人，法国大漆艺苑公司漆艺总设计师，中国朝漆苑创始人

瞿德华：毕业于中国美术学院公共艺术（漆画）专业，毕业作品《完不整》获崇丽奖，中国美术学院图书馆收藏。《正当午》参加中国（厦门）漆画展。《正当午》第三届全国漆画展（南京）以及海峡漆艺大展，福建美术馆收藏。《房内夜烛》湖北国际漆艺三年展。《当歌》浙江省第十三届美展。《众生浮游》海峡漆艺大展。

课程简介：

主题：

本课程能帮助大家真正了解国家级非物质文化遗产大漆深厚的历史文化底蕴以及大漆素髹工艺的具体制作方法，让大家熟知神秘材料的特殊工艺。教师从当代人的视角带大家去观察、认识、理解、表达漆艺。

教学过程：

通过课程的学习不仅可以帮助大家试着完成古老而又神秘的漆器，更可以打开你在设计与制作漆艺术品方面强烈欲望，带你掌握这个极具魅力的传统手工艺。以亲身制作的方式，零距离接触与制作漆器，从而在制作工程当中深入理解大漆

艺术之美。打磨木胎、稀释与过滤生漆、反复涂漆水磨，制作属于自己的漆器作品。

课程特色;

在有限课时内完成漆器制作，制作的大漆作品可以服务日常生活，让传统漆艺回归生活，短时间完成漆器素髹工艺。

# 文化邂逅与设计研究

## Design Research & Cultural Encounters

课程名称：文化邂逅与设计研究

开课学院：机械工程学院

开课教师：Carmelo Di Stefano 职务：创始人

李芸婷 职务：行政总监

课程代码：082681 学分：1

选修人数：30

开课时间：2022.7.10-2022.7.13

教师简介：

Carmelo 是一位不断在教育和设计领域创新的实践家。身为教育者，他无时无刻激发着学生和身边的人，源源不绝地产生新观点和改进的动力。身为设计师，他擅长在具有功能性的设计之上赋予情绪和文化的附加价值。在早期的职业生涯中曾于瑞典高科技研究中心 ACREO 从事新科技与生活应用研发。之后他将工作重心转往教育，于上海视觉艺术学院任教三年，并创立 Superhike 工作室，致力于创意、设计、可持续方面的教育。

Carmelo Di Stefano

Carmelo is multidisciplinary in both design and education professions. As an educator, he is always inspiring to students and to other people around him. As a designer, he brings emotional and spiritual values on top of functional design. In the beginning of his career, he worked in one of the top research institute, ACREO in Sweden, to design for the future with new technology. Later he switched his focus to education and teaches sustainable design in Universities in China.

Monica Lee

Monica 对设计与可持续充满热情，并渴望透过自身力量来启发下一代。虽然她本科专业和早期的工作都是国际贸易，但之后追随自己的兴趣而转往产品设计之路。藉着同时具备商科背景与创意设计思维的跨领域整合能力，成功地踏入设

计界，担任产品开发人员、家具设计师和项目经理。近六年任职于德稻/上海视觉艺术学院，主讲可持续家具设计，现任 Superhike 行政总监。

Monica is passionate about design, sustainability and inspiring the next generation. Her first degree and profession was business, and then turned into the innovative world of design with the strong inner calling. She bridges her dual backgrounds as product developer, office furniture designer and project manager. In the previous four years, she had been teaching Sustainable Product Design in the bachelor program of Detao / Shanghai Institute of Visual Art.

#### 课程简介：

The sudden counterattack of the epidemic in China this year has greatly shocked several cities affected by Covid-19. The previously life style has been turned upside down under the strict epidemic prevention policy. Under this circumstance, people form different views on the basic supplies of life, and the ways of interaction among people have changed unprecedentedly. Neighbors who were unfamiliar before formed a strong helping group; roommates who originally had their own life became a 24-hour life community; the home space was instantly switched from family mode to co-working mode during daytime, adapting to work for adults and online classes for children. The people from other places working in Shanghai feel that they are farther away from their hometowns, but they also earn more spare time suddenly to connect online with old friends whom they haven't seen for a long time, and exchange their thoughts and feelings.

As Shanghai is gradually unlocked, some aspects of life are about to return to normal, while others will develop new social routines and relationships as a result of this special experience. This summer course is aiming to discuss the new interpersonal relationship brought about by the epidemic in the form of workshops, use trend analysis methods to predict the future development direction, and gain insight into opportunities from a creative perspective, so as to provide more information for the coming new social model to provide sustainable living proposals.

This course content includes:

- Social innovation
- Service/Product/Device Design
- Creative thinking tool
- Social sustainability
- Creative communication for design outcome

# 线性系统状态估计

## Linear System State Estimation

课程名称：线性系统状态估计

开课学院：信息科学与技术学院

开课教师：施凌 职称：教授

课程代码：090029 学分：1

选修人数：10-20

开课时间：2022.7.4 -7.8

教师简介：

施凌，香港科技大学电子及计算机工程系教授（终身教职），机器人研究所副所长。2002年于香港科技大学电子及电机工程系获本科工学学士学位，2008年于加州理工学院控制与动力系统系获博士学位。施教授在信息物理系统的建模和控制、安全与隐私等领域取得了丰硕的成果，在控制领域顶级期刊，包括 IEEE Transactions on Automatic Control, Automatica，发表论文 100 余篇。Google 学术引用超过 8300 次，H-index 47，其中 5 篇代表作引用次数超过 300（1 篇入选 ESI 高被引论文）。相关研究成果获得了 2017 年度教育部高等学校科学研究优秀成果奖自然科学一等奖以及 2019 年度上海市自然科学二等奖。2019 年入选第二届世界顶尖科学家论坛青年科学家（全球仅 100 人入选），2020 年入选世界经济论坛青年科学家（全球仅 25 人入选）。施凌教授对教学育人工作抱有极大的热忱。他曾获 2011 年度香港科技大学工学院优秀教学成果奖以及 2021 年度香港科技大学电子与计算机工程系优秀教学成果奖。至 2021 年，共培养了 14 名博士、10 名硕士。他培养的 3 名博士分别入选 2016、2017、2018 年度的国家级青年人才计划（并加入浙江大学、东北大学、上海大学任职教授），另有 5 名博士分别于 2018-2020 年度加入华为深圳、香港、以及上海的研究院，并在其在博士研究工作基础上继续从事新一代网络控制研究与通讯协议的研发。

Ling Shi, Professor in the Department of Electronic and Computer Engineering, and the associate director of the Robotics Institute, both at the Hong Kong University

of Science and Technology. He received a Bachelor's degree from the Department of Electronic and Computer Engineering at the Hong Kong University of science and technology in 2002 and a Doctor's degree from the Department of Control and power systems of the California Institute of technology in 2008. His research interests include cyber-physical systems security, networked control systems, sensor scheduling, event-based state estimation, and exoskeleton robots. He has published more than 100 papers in top journals in the field of control, including IEEE Transactions on Automatic Control, Automatica. Google has cited more than 8300 academic works, including 47 h-index, of which 5 representative works have been cited more than 300 times (1 selected into ESI highly cited papers). The relevant research achievements won the first prize of 2017 excellent scientific research achievement award of colleges and universities of the Ministry of education and the second prize of 2019 Shanghai Natural Science Award. In 2019, he was selected as the young scientist of the second world top scientists Forum (only 100 people in the world were selected), and in 2020, he was selected as the young scientist of the World Economic Forum (only 25 people in the world were selected). Professor Shi Ling has great enthusiasm for teaching and educating people. He has won the 2011 excellent teaching achievement award of the school of technology of the Hong Kong University of science and technology and the 2021 excellent teaching achievement award of the Department of electronic and computer engineering of the Hong Kong University of science and technology. By 2021, 14 doctors and 10 masters have been trained. The three doctors he supervised were selected into the national youth talent program in 2016, 2017 and 2018 (and joined the professors of Zhejiang University, Northeast University and Shanghai University). Another five doctors joined the research institutes of Huawei in Shenzhen, Hong Kong and Shanghai in 2018-2020, and continued to engage in the research and development of new generation network control and communication protocols on the basis of their doctoral research.



### 课程简介:

本课程介绍线性系统状态估计的基础知识。首先回顾数学和线性系统知识，其次介绍最小二乘法和随机最小二乘法，然后介绍新息过程，最后介绍著名的卡尔曼滤波器，它是线性高斯系统的最小均方差估计器。

This course introduces the basics of linear system state estimation. Firstly, the knowledge on the mathematics and linear systems are reviewed, followed by an introduction of least square and stochastic least square methods. Then, the innovation process is introduced and, finally, the well-known Kalman filter is introduced which is the MMSE estimator for linear Gaussian systems.

## 纳米医学：从指导原则到诊疗纳米材料工程

### **Nanomedicine: from guiding principles to engineering of nanomaterials for therapy and imaging**

课程名称：纳米医学：从指导原则到诊疗纳米材料工程

开课学院：化学化工与生物工程学院

开课教师：Mangency Claire 职称：教授

课程代码：100012 学分：1

选修人数：30

开课时间：2022.7.5-2022.7.8

教师简介：

Claire MANGENEY 教授是法国巴黎第五大学 LCBPT 实验室（化学，生物化学，药理学，毒理学联合实验室），Nano-bio spectroscopy 课题组组长，其研究领域集中在生物传感器，纳米材料和表面增强拉曼光谱方面。

医学，药学，生物医药等学科的排名位居全法前茅，是欧洲最重要的生物医药领域教学科研基地之一。

Claire MANGENEY

Full Professor, LCBPT Laboratory, Université Paris Cité

Leader of the group Nano Bio Spectroscopy

45 rue des Saints Pères 75006 Paris

Email : claire.mangency@u-paris.fr.

课程简介：

本课程主要介绍用于在医学诊断、治疗以及诊疗一体化领域的纳米技术，例如新型的纳米药物输送系统，纳米传感器、纳米探针等等，以及这些技术在体内与体外的应用，为学生提供关于纳米技术在医药与临床应用的最新知识。

This course will deal with innovation approaches on nanomedicine in the fields of therapy, diagnosis and theranostic, such as innovative drug delivery systems, nanosensors and nanoprobe. This course aims to provide students with the necessary

training to be able to understand the principles of nanotechnology and its application in medical research and clinical practice.

# 日本语言文学文化导读

## Introduction to Japanese Language, Literature and Culture

课程名称：日本语言文学文化导读

开课学院：外语学院

开课教师：修刚 职称/职务：教授

课程代码：127037 学分：1

选修人数：50

开课时间：2022.7.4-2022.7.8

### 教师简介：

修刚，辽宁丹东人。天津外国语大学学科带头人、原校长。现任教育部外语教学指导委员会副主任、教育部外语教学指导委员会日语分委员会主任、中国翻译协会副会长、天津翻译协会会长、中国日语教学研究会名誉会长、中央编译局博士后流动站导师、解放军外国语学院、东北师范大学、厦门大学等国内外知名学府的博士生导师。

1982年获辽宁师范大学日语语言文学专业学士学位，1984年7月毕业于天津外国语学院日语系日语专业获硕士学位，2008年11月获日本武藏野大学名誉博士称号。国务院特贴专家。

### 课程简介：

本课程是一门由修刚教授领衔的、融合日本语言、日本文学、中日文化交流等多样化内容的综合性课程。本课程为全校公共文化类课程，旨在帮助学生从多角度了解日本，理解中日两国语言文化文学等多方面的差异性。在树立本国文化自信的同时，也能正确认识日本和中日关系。

This course is a comprehensive course led by Professor XiuGang, integrating Japanese language, Japanese literature, Sino Japanese cultural exchange and other diversified contents. This course is a public culture course of the whole school, which aims to help students understand Japan from multiple perspectives and understand the

differences between Chinese and Japanese language, culture and literature. At the same time, we can have a correct understanding of Japan and Sino Japanese relations.

# 环境毒理学和物理辐射

## Environmental Toxicology and Radiation Hazard

课程名称：环境毒理学和物理辐射

开课学院：环境科学与工程学院

开课教师：Paul Heroux      职称/职务：教授

课程代码：142691 学分：1

选修人数：50-250

开课时间：2022.7.4-2022.7.8

教师简介：

Paul Heroux 是麦吉尔大学职业和环境卫生专业的教授，同时也是公共卫生职业和环境卫生专业的主任。Heroux 教授在工程领域工作十五年，在环境卫生和健康风险评估领域工作二十五年，同时也是国际上有名望的低频环境污染和辐射健康评估专家。

课程简介：

本课程在介绍基本的毒理学原理基础上，讲授环境有害因素对人体健康的影响和危害评估技术。讨论大气、土壤和水体的污染及其对人体健康的危害，重点介绍物理有害因素如电磁辐射（微波及其他电磁波等）等对健康的影响。课程主要是帮助学生理解毒理学原理，认识环境有害因素，以及保护措施。

Course Description

This course is to teach the effects of environmental hazardous factors on human health based on the general introduction of toxicology. In addition, the risk assessment method will be introduced. The pollutants in air, water and soil will be discussed in terms of their health effects. The key content will cover the physical hazardous factors (like microwave, electromagnetic radiation, etc.) which will affect human health. The course attempts to improve the understanding of toxicology and environmental hazardous factors, and protection methods.