

CSAP 2020

COURSE INTRODUCTION

剑桥暑期学术课程项目 | 课程介绍手册

KNOWLEDGE, ON THE ROAD



**CSAP
2020**



TABLE OF CONTENTS



05 CSAP COURSE SYSTEM

10 SESSION 1

46 SESSION 2



1

CSAP COURSE SYSTEM

课程结构

Course Details

课程详情

PROGRAMME DATE | 项目时间
2020.07.19 - 08.09

SESSION 1
3 WEEKS

- NANOTECHNOLOGY AND QUANTUM MECHANICS
纳米材料与量子技术
- SEMICONDUCTOR AND APPLIED INFORMATION ENGINEERING
半导体工程与芯片设计原理
- DEEP LEARNING AND MACHINE LEARNING & DATA MINING (ARTIFICIAL INTELLIGENCE) 深度学习与机器人学习和数据挖掘 (人工智能方向)
- BRITISH CULTURE, LITERATURE AND SOCIOLOGY
英国文化文学及社会学
- INTERNATIONAL FINANCE AND BUSINESS MANAGEMENT
国际金融与商业管理

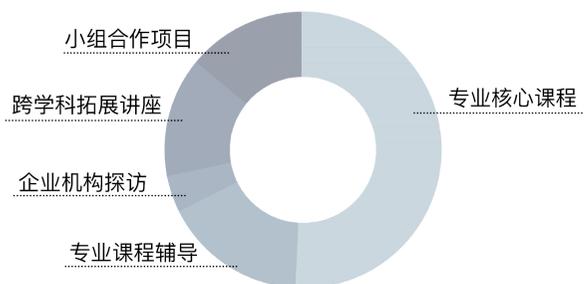
PROGRAMME DATE | 项目时间
2020.08.09 - 08.30

SESSION 2
3 WEEKS

- INTERNATIONAL FINANCE & INVESTMENT
国际金融与投资
- FINTECH AND BEHAVIORAL FINANCE
金融科技与行为金融学
- INTERNATIONAL BUSINESS MANAGEMENT & LEADERSHIP
国际商业管理与领导力
- INTERNATIONAL ACCOUNTING & CAMBRIDGE ECONOMICS
国际会计与剑桥经济学

COURSE STRUCTURE

课程结构

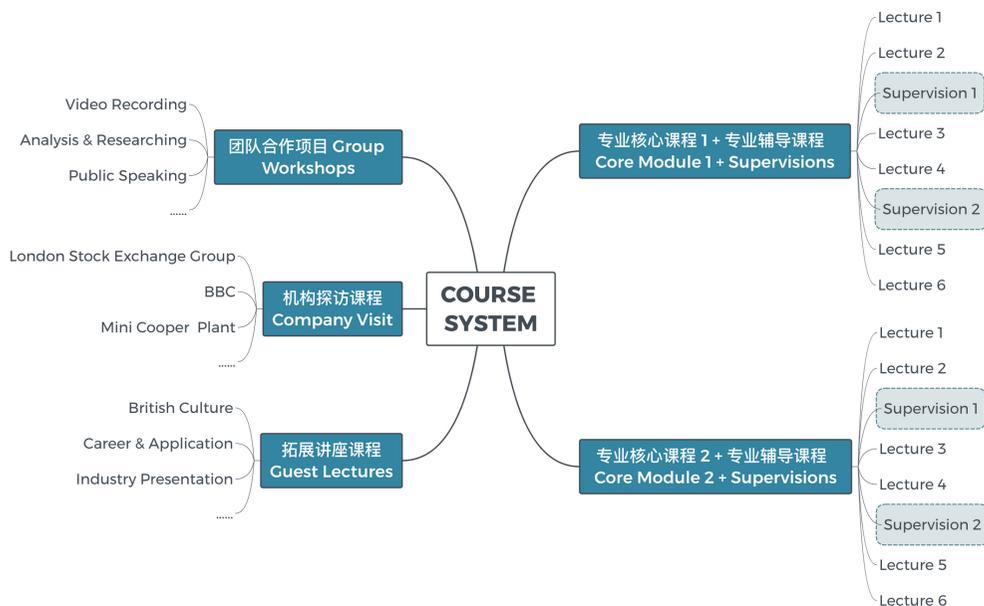


课程总学时
 2周：48小时 3周：61小时
 *部分定制课程时长以实际为准

课程特色

- 牛剑教授担当主讲；
- 全真剑桥专业学习体验；
- “选课制”暑校项目；
- 深入 1 门课程方向学习；
- 平均每周 20 学时；
- 专业成绩单、项目证书；
- 国际学分认证；
- Top5% 可获得推荐信。

* 所有课程，都将参考如下的课程结构进行。个别课程也会根据课程内容等做相应调整。



2

COURSE INTRODUCTION

课程介绍

The course content is subject to change as necessary.
实际授课内容，会根据教授的更新产生变化，以实际为准，以下内容仅供参考

SESSION 1

2020.07.19-08.09

Nanotechnology and Quantum Mechanics

COURSE OVERVIEW

Course Dates: 19th July to 8th August (Session 1)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: Mathematical literacy is essential. Understanding of how to solve simple ordinary differential equations is useful. Some knowledge of basic Physics useful.

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours)

Assessment: Assessed individually and in groups through group presentations

Skills Trained: Problem Solving, Teamwork, Presentation, Communication

Materials Required: Laptop for preparing presentations

COURSE DESCRIPTION

From Quantum mechanics to relativity, science was shaken at its roots over a century ago, and this led to the interest in all things small. The first module of this course takes a look at the origins of nanotechnology, deep in the mists of time when science thought it had all the answers, and then became clear from one discovery after another that this was not the case. It looks at nanotechnology in everyday use, providing an understanding of the basic underpinning principles to view where this exciting field is heading. The second module explores quantum technologies. We will look at what quantum technologies are, where they have come from and where they can and are being used. We will explore the foundations of quantum mechanics and how they led to a deepening of our understanding of the world around us, and how many of the properties of matter can be explained.

Module 1 | Nanotechnology, Materials and Energy

Module Description

Materials scientists are working on solutions to challenges in alternative energy technologies, including solar, wind, nuclear, and hydrothermal. This module starts by looking at nanotechnology, how and why the properties of nanometer-sized objects are fundamentally different to larger things, and how we can take advantage of this. The module explains different electrical properties and how one chooses a material for a particular application, as well as power generation and converting mechanical power to electrical power.

Module Topics

- Classic and Modern science of Nanotechnology
- Electrical properties of materials
- Power, generation and transmission

Module Aims and Objectives

- Have an appreciation of the fundamental scientific principles underpinning Nanotechnology
- Be aware of the mechanisms behind the generation of electrical power, and how it is then transmitted.
- Become familiar with applications such as solar, wind power, geothermal, hydroelectric power

Module Assessment

Students will work in small groups to solve assigned problems and deliver presentations.

Module Recommended Reading

- Nanotechnology 101 – this is a website from the US government-funded National Nanotechnology Initiative: <https://www.nano.gov/nanotech-101>
- There are some useful pages on the website of the Foresight Institute: <https://www.foresight.org/Hotwired.all.files/index.html>

- An insightful discussion can be found here – “Can Nanotechnology save lives?”<https://www.smithsonianmag.com/science-nature/can-nanotechnology-save-lives-1060517/>
- There are some interesting ideas and concepts on this page prepared by the Guardian newspaper:
<https://www.theguardian.com/science/nanotechnology!>

Module 2 | Quantum Technologies

Module Description

In this course, we will look at what quantum technologies are, where they have come from and where they can and are being used. We will explore the foundations of quantum mechanics and how they led to a deepening of our understanding of the world around us, and how many of the properties of matter can be explained. We will look at how this has led to novel devices in computing, data storage, information processing and other fields, and gain an appreciation for this often-misunderstood branch of science. We will introduce the Schrodinger equation and solve it for a number of everyday problems which will reveal the breadth of this field. We will also consider some of the more challenging aspects of the interpretation of quantum mechanics calculations, which are often highly counter-intuitive.

Module Topics

- Introduction to Quantum Mechanics and How to use it
- Specific examples of the application of Quantum principles
- Quantum technologies & Quantum computing

Module Aims and Objectives

- Understand the basic principles of Quantum Mechanics
- Be able to perform simple calculations predicting the behavior of quantum systems
- Appreciate the principle of operation of quantum computers
- Understand where quantum effects are present in everyday cases

Module Assessment

Groups will deliver presentations assigned by the instructor.

Module Recommended Reading

- <https://www.livescience.com/33816-quantum-mechanics-explanation.html>

- <https://www.forbes.com/sites/chadorzel/2015/07/08/six-things-everyone-should-knowabout-quantum-physics/#574ff3157d46>
- <https://plus.maths.org/content/ridiculously-brief-introduction-quantum-mechanics>
- <http://www.bbc.com/earth/story/20150731-what-is-a-ray-of-light-made-of>

新工科材料科学 纳米材料与量子技术

纳米材料与量子技术

课程时间：7月19日至8月8日（第一期）

课程时长：3周

学分：相当于3个美国学分

要求：数学素养至关重要。了解如何求解简单的常微分方程以及了解一些基本物理知识将非常有用。

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）

评估：通过个人和小组讲演进行评估

培训技能：解决问题能力，团队合作能力，讲演能力，沟通能力

所需材料：携带可用于讲演的笔记本电脑。

课程说明

从量子力学到相对论，科学早在一个世纪前就被动摇了，这引起了人们对所有小事物的兴趣。本课程的第一个模块着眼于纳米技术的起源，当还在迷雾笼罩的时代时，科学认为它可以解决所有问题，然后从一个又一个的发现中清楚地认识到事实并非如此。这个模块着眼于日常使用的纳米技术，以了解其基础原理，并了解这一令人兴奋的领域的发展方向。第二个模块探讨了量子技术。我们将研究量子技术是什么，它们来自何处以及可以在何处使用。我们想探索量子力学的基础，以及它们如何使我们加深对周围世界的理解。

模块 1 | 纳米技术、材料和能源

模块说明

材料科学家正在研究替代能源这一技术挑战的解决方案，包括太阳能，风能，核能和水热能。本模块从研究纳米技术，纳米尺寸物体的特性是如何并且为何与大型物体有着根本的不同，以及我们如何利用这一点。该模块介绍了不同的电气特性，以及如何为特定应用选择材料，以及发电和如何将机械能转换为电能。

模块主题

- 纳米技术的经典与现代科学
- 材料的电性能
- 电力，发电和输电

学习目标

- 了解支撑纳米技术的基本科学原理
- 注意产生电能的机制，以及如何传输电能
- 熟悉太阳能，风能，地热，水力发电等应用

模块评估

学生将以小组形式解决被分配的问题并进行讲演。

模块推荐读物

- 纳米技术101-这是美国政府资助的国家纳米技术计划的网站：
<https://www.nano.gov/nanotech-101>
- 前瞻研究所的网站上有一些有用的页面：
<https://www.foresight.org/Hotwired.all.files/index.html>
- 在这里可以找到有见地的讨论-“纳米技术可以拯救生命吗？”：
<https://www.smithsonianmag.com/science-nature/can-nanotechnology-savelives-1060517/>
- 监护人报纸在此页面上准备了一些有趣的想法和概念：
<https://www.theguardian.com/science/nanotechnology!>

模块 2 | 量子技术

模块说明

在本课程中，我们将研究什么是量子技术，它们来自何处以及可以在何处使用。我们将探索量子力学的基础，以及它们如何使我们加深对周围世界的理解。我们想看看这如何运用到计算，数据存储，信息处理和其他领域中的新型设备中，并能够对这一经常被误解的科学分支有正面的理解。我们将介绍Schrodinger方程，并针对许多日常问题解决该方程，这些问题将揭示该领域的广度。因此，我们要考虑量子力学计算中一些更复杂的方面，这些方面通常是极其不符合直觉的。

模块主题

- 量子力学导论及其使用方法
- 量子原理应用的具体例子
- 量子技术与量子计算

学习目标

- 了解量子力学的基本原理
- 预测量子系统的性能
- 了解量子计算机的工作原理
- 了解日常情况下的量子效应

模块评估

学生将以小组形式就老师分配到的题目进行讲演。

模块推荐读物

- <https://www.livescience.com/33816-quantum-mechanics-explanation.html>
- <https://www.forbes.com/sites/chadorzel/2015/07/08/six-things-everyone-should-knowabout-量子物理学/#574ff3157d46>
- <https://plus.maths.org/content/ridiculously-brief-introduction-quantum-mechanics>
- <http://www.bbc.com/earth/story/20150731-w>

Semiconductor Technology and Information Engineering

COURSE OVERVIEW

Course Dates: 19th July to 8th August (Session I)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: Understanding of basic semiconductor physics, including conduction and valence bands, and the Fermi energy

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours)

Assessment: Assessed individually and in groups through group presentations

Skills Trained: Problem Solving, Teamwork, Presentation, Communication

Materials Required: Laptop for preparing presentations

COURSE DESCRIPTION

Electrical and electronic engineers are at the forefront of technology, working to improve communication in different aspects of life through the performance of electronic equipment and power distribution. First, the course looks at how the most common semiconductor devices operate and what their performance metrics depend on, allowing us to think about how they will be engineered into the future. As we try to improve the performance of semiconductor devices, we need to understand quantitatively how they operate and therefore how their performance depends on their geometry and the material that we use for their manufacture. The module then provides an introduction to how microfabrication techniques are used to manufacture semiconductors and MEMS devices. The second module of the course features an introduction to information theory, a field which has had a great impact in computer engineering, communications, and signal processing. We will consider the limit of data compression and transmission. We will also learn practical coding techniques to attain optimal limits.

Module 1 | Semiconductor Engineering

Module Description

This module begins with an introduction to the ubiquity of semiconductor devices, crystalline silicon and alloys, metallization and materials characterization. First, we will learn about the pn junction diode. Although it is one of the simplest semiconductor devices, it forms the basis of more complex systems. The second half of the module introduces microfabrication. Microfabrication has enabled the development of the consumer electronic devices that we rely on today. The module presents two key classes of materials that are used: silicon-based materials and metals, including how to characterize these materials.

Module Topics

- The pn Junction Diode
- Current Flow in the P+n Junction
- Metal-Semiconductor Junctions
- Semiconductor roadmap
- The BJT & HBT
- The MOSFET (Part 1)
- The MOSFET (Part 2)

Module Aims and Objectives

- Appreciate the key engineering considerations in the design of pn junction diodes, metal-semiconductor diodes, bipolar junction transistors and MOSFETs
- Appreciate the importance of microfabrication for the development of modern electronic components

Module Assessment

Groups will deliver presentations on Recent Engineering of the MOSFET in Microprocessors.

Module Recommended Reading

- Solid State Electronic Devices, Streetman & Banerjee Prentice Hall, (3rd-5th Edition)
- Physics of Semiconductor Devices ('Big Size') Sze, Wiley, 2nd Edition
- Introductory Semiconductor Device Physics, Parker, IoP Publishing

Module 2 | Applied Information Theory

Module Description

This module introduces the concepts of information theory that are essential building blocks in the design of communication and storage systems. It reviews the probability theory of discrete random variables, introduces fundamental measures of uncertainty and information, and derives the fundamental limits of communication and storage. Furthermore, it presents a number of practical compression and error control algorithms.

Module Topics

- Review of discrete probability theory
- Entropy, uncertainty
- Fundamental limits of data compression
- Huffman coding and arithmetic coding
- Mutual information
- Fundamental limits of reliable transmission / storage
- Linear codes
- Low-density parity-check codes

Module Aims and Objectives

- Understand principles and applications of information theory
- Define channel capacities and properties
- Understand encoding and communication schemes

Module Assessment

Students will work in small groups to solve assigned problems and deliver presentations.

Module Recommended Reading

- D. J. C. MacKay, Information theory, inference, and learning algorithms, Cambridge University Press, 2003. (free online version)
- James L. Massey, Applied Digital Information Theory, <https://goo.gl/9vmVXZ>
- T. M. Cover and J. A. Thomas, Elements of Information Theory, Wiley Series in Telecommunications, 2nd Edition, 2006.

新工科电子信息工程 半导体工程与芯片设计原理

半导体工程与芯片设计原理

课程时间：7月19日至8月8日（第一期）

课程时长：3周

学分：相当于3个美国学分

要求：了解半导体的基本物理原理，包括导带和价带以及费米能量

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）

评估：通过个人和小组讲演进行评估

培训技能：解决问题能力，团队合作能力，讲演能力，沟通能力

所需材料：携带可用于讲演的笔记本电脑。

课程说明

电气和电子工程师处于技术的最前沿，他们致力于通过电子设备的性能和配电来改善生活各个方面的交流。首先，本课程着眼于最常见的半导体器件的工作方式以及它们的性能指标是如何运作的，这使我们能够思考如何将它们运用到未来的生活。当我们尝试提高半导体器件的性能时，我们需要定量地了解它们的工作方式，因此它们的性能如何取决于它们的几何形状以及用于制造它们的材料。其次，该模块介绍了如何使用微细加工技术来制造半导体和微机电系统器件。本课程的第二个模块介绍了信息理论，该理论对计算机工程，通信和信号处理产生了重大影响。我们将研究数据压缩和传输的限制，并学习实用的编码技术以达到最佳极限。

模块 1 | 半导体工程

模块说明

该模块首先介绍了半导体器件，晶体硅和合金，金属化和材料表征的普遍性。首先，我们将了解pn结二极管。尽管它是最简单的半导体器件之一，但它是更复杂系统的基础构成。该模块的后半部分介绍了微细加工技术。微细加工使我们现在所依赖的电子设备得以发展。该模块介绍了其使用的两种主要材料：硅基材料和金属，并包括如何描绘这些材料的特征。

模块主题

- pn结二极管
- P + n结中的电流
- 金属半导体结
- 半导体路线图
- BJT和HBT
- MOSFET（第1部分）
- MOSFET（第2部分）

学习目标

- 鉴别pn结二极管，金属半导体二极管，双极结晶体管和MOSFET设计工程中需要考虑的关键因素
- 领会微细加工对于现代电子元件发展的重要性

模块评估

小组将进行有关微处理器MOSFET的最新工程的讲演。

模块推荐读物

- 固态电子设备，Streetman和Banerjee Prentice Hall，（第3-），第5版
- 半导体器件物理，Sze，Wiley，第二版
- 半导体器件物理入门，Parker，IoP出版

模块 2 | 应用信息论

模块说明

本模块介绍了信息理论的概念，是通信和存储系统设计中必不可少的组成部分。它回顾了离散随机变量的概率理论，介绍了不确定性和信息的基本度量，并得出了通信和存储的基本限制。此外，它提出了许多实用的压缩和错误控制算法。

模块主题

- 离散概率理论述评
- 熵，不确定性
- 数据压缩的基本限制
- 霍夫曼编码和算术编码
- 交互信息
- 可靠的传输/存储的基本限制
- 线性码
- 低密度奇偶校验码

学习目标

- 了解信息论的原理和应用
- 定义信道容量和属性
- 了解编码和通信方案

模块评估

学生将以小组形式解决被分配的问题并进行讲演。

模块推荐读物

- 《信息论，推理和学习算法》，D. J. C. MacKay，剑桥大学出版社，2003年。（免费在线版本）
- 《应用数字信息理论》，James L.Massey，<https://goo.gl/9vmVXZ>
- 《信息论原理-远程通信Wiley系列》，T. M. Cover和J. A. Thomas，第二版，2006年。

Artificial Intelligence:Machine Learning and Data Mining

COURSE OVERVIEW

Course Dates: 19th July to 8th August (Session I)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: Read “Mathematical Tools for Machine Learning” to review vectors, matrices, and probability theory. Familiarize yourself with Python (www.python.org) and download it to your laptop.

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours).

Assessment: Assessed individually and in groups through group presentations.

Skills Trained: Problem Solving, Teamwork, Presentation, Communication.

Materials Required: Bring a laptop with Python.

COURSE DESCRIPTION

Computing is one of the most significant advances of the twentieth and twenty-first centuries. Within the discipline of computing, artificial intelligence is one area with growing impact on everyday life. Artificial Intelligence holds potential to solve problems previously impossible to overcome. This course introduces artificial intelligence and principles which can be employed to generate solutions to real-world problems. It focuses on the cutting-edge of two areas: Deep Learning and Machine Learning.

Module 1 | Deep Learning

Module Description

Deep learning is part of a broader family of machine learning methods based on artificial neural networks. Artificial neural networks are computing systems inspired by the biological neural networks that constitute animal brains. Such systems "learn" to perform tasks by considering examples, generally without being programmed with any task-specific rules. Applications of deep learning include automatic speech recognition, image recognition, visual art processing, and natural language processing.

Module Topics

- Deep Neural Networks
- Autoencoders
- Variational Autoencoder architectures for Data integration
- Graph neural networks
- Spatio-temporal neural Networks
- Generative adversarial networks
- Reinforcement learning
- Multiscale Neural Networks
- Random Forest and Boosting
- Linking neural networks with random forests

Module Aims and Objectives

- Learn foundations of Deep Learning
- Understand computations underlying Deep Learning
- Become familiar with Deep Learning applications

Module Assessment

Groups will deliver presentations on Recent Engineering of the MOSFET in Microprocessors.

Module Recommended Reading

"Mathematical Tools for Machine Learning." Readings will be provided to students prior to the course.

Module 2 | Machine Learning and Data

Module Description

Machine learning is a subset of artificial intelligence. It explores the study and construction of algorithms that can learn from and make predictions on data. The types of machine learning algorithms differ in their approach, the type of data they input and output, and the type of task or problem that they are intended to solve. This module introduces machine learning algorithms and applications through a practical tutorial.

Module Topics

- Online Learning
- Supervised Learning
- Spectral Graph Algorithms and Clustering
- Tutorial
- Basic Graph Algorithms
- Linear Programming

Module Aims and Objectives

- Understand landmarks and recent developments of Machine Learning and Algorithms
- Learn key ideas of several Machine Learning Algorithms and applications such as face detection
- Apply Machine Learning theory to real world data

Module Assessment

Students will work in small groups to solve assigned problems and deliver presentations.

Module Recommended Reading

- “Mathematical Tools for Machine Learning.” Readings will be provided to students prior to the course.

新工科计算机科学 深度学习与机器人学习和数据挖掘 (人工智能方向)

深度学习与机器人学习和数据挖掘 (人工智能方向)

课程时间：7月19日至8月8日（第一期）

课程时长：3周

学分：相当于3个美国学分

要求：通过阅读“机器学习的数学工具”来复习向量，矩阵和概率论。熟悉如何使用Python (www.python.org) 并在笔记本电脑上安装。

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）。

评估：通过个人和小组讲演进行评估。

培训技能：解决问题能力，团队合作能力，讲演能力，沟通能力。

所需材料：携带安装好Python的笔记本电脑。

课程说明

计算机信息处理技术是20世纪和21世纪最重要的进步之一。在该学科中，人工智能对人们的日常生活正在产生越来越大的影响。人工智能具有解决以前无法克服问题的潜力。本课程将介绍人工智能及其原理，这些可用于提供现实问题的解决方案。本课程专注于两个前沿领域的研究：深度学习和机器学习。

模块 1 | 深度学习

模块说明

深度学习源于人工神经网络研究，是机器学习方法系列的一部分。人工神经网络是一种计算系统，是在对构成动物大脑的生物神经网络的研究基础上提出的。这样的系统通常可以通过参考示例来“学习”执行任务，而无需使用任何特定任务的规则进行编程。深度学习的应用包括自动语音识别，图像识别，视觉艺术处理和自然语言处理。

模块主题

- 深度神经网络
- 自动编码器
- 用于数据集成的变体自动编码器架构
- 图神经网络
- 时空神经网络
- 生成对抗网络
- 强化学习
- 多尺度神经网络
- 随机森林和助推
- 神经网络与随机森林的链接

学习目标

- 学习深度学习的基础
- 了解深度学习的基础计算

模块评估

熟悉深度学习的应用

模块推荐读物

- 《机器学习的数学工具》。课程开始前将向学生提供阅读材料。

模块 2 | 机器学习和数据

模块说明

机器学习是人工智能的子集。它探索了通过研究数据预测得出算法的研究和构建。机器学习算法的类型不同之处在于其方法，输入和输出的数据类型以及要解决的任务或问题的类型。本模块通过实用教程介绍机器学习算法及其应用。

模块主题

- 在线学习
- 监督学习
- 频谱图算法和聚类
- 教程
- 基本图算法
- 线性编程

学习目标

- 了解机器学习和算法的里程碑和最新发展
- 了解几种机器学习算法和应用的核心概念，例如面部检测
- 将机器学习理论应用于现实世界数据

模块评估

学生将以小组形式解决被分配的问题并进行讲演。

模块推荐读物

- 《机器学习的数学工具》，课程开始前将向学生提供阅读材料。

British Culture, Literature and Sociology

COURSE OVERVIEW

Course Dates: 19th July to 8th August (Session I)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: None.

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours).

Assessment: Assessed individually and in groups through group presentations.

Skills Trained: Critical thinking, Teamwork, Presentation, Communication.

Materials Required: Laptop for preparing presentations.

COURSE DESCRIPTION

This course is designed to provide an introduction to topics within sociology and culture studies. Sociologists study the actions, beliefs, values, norms, organizations, institutions, and other social forces that characterize a society and shape people's lives. The first module focuses on social analysis of media and culture in daily life. The module analyzes key theories and debates in the study of culture and media. Digital media are analyzed and topics such as cultural production, media and identity, and theories of everyday life are explored. The second module introduces European culture, literature, and art. It raises questions of how and to what extent culture has an influence on art.

Module 1 | Sociology and Culture Studies

Module Description

The module provides students with an introduction to some of the key theoretical approaches to the study of culture and the media. In this module we will discuss different approaches to understanding representation in relation to studying the media, and consider a range of topics including vulnerability, gender, social media, activism, suffering and injury, and public engagement. Students will have the opportunity to develop skills in presentations, working in groups, and critically analysing social phenomena.

Module Topics

- Social Media
- Gender
- Activism and Public engagement

Module Aims and Objectives

- Understand key theories and concepts related to media representation
- Explore different issues and challenges arising from representation
- Analyse debates and contribute to discussions
- Engage with, articulate and present ideas

Module Assessment

Students will work in small groups to develop a presentation on key ideas raised during the module.

Module Recommended Reading

- S. Hall, 'The Work of Representation', in S. Hall (ed), *Cultural Representations and Signifying Practices* (SAGE, 1997).
- Koivunen, A. Kyrölä, K. and Ryberg, I. (eds.) 2018. *The power of vulnerability: Mobilising affect in feminist, queer and anti-racist media cultures*. Manchester: Manchester University Press. Chapter 1.

- Allende, I. *The Stories of Eva Luna* (MacMillan, 1988) ['And of Clay Are We Created']. Available at:
http://www.literaturewithleonetti.com/uploads/9/2/5/7/92571264/and_of_clay_are_we_created.pdf
- M. Kannan, R. Hall and M.W Hughey, 'Watching Moonlight in the Twilight of Obama', *Humanity & Society* 41/3 (2017), pp. 287-298.
- N. Clark and Y. Gunaratnam, 'Exorbitant Responsibility: Geographies of Climate Justice', in J. Bhavnani, J. Foran, P. A. Kurian and D. Munshi (eds), *Climate Futures: Re-imagining Global Climate Justice* (University of California Press, 2018). Available at:
https://eprints.lancs.ac.uk/id/eprint/125837/1/ExorbitantResponsibilityFINAL_copy.pdf

Module 2 | European Culture, Society, and Literature

Module Description

There are fascinating parallels between Britain (& Europe) in the nineteenth century and China in the twenty-first century. In this module, we will discuss four authors: Turgenev, Balzac, Dickens, and Trollope. These important authors expose so much that is timeless about European culture. Whether literary geniuses can carry such influence in an age of the internet is a question worth debating. The module features lectures on British culture and Cambridge in British history and culture.

Module Topics

- Formation of British culture
- European literature
- European art

Module Aims and Objectives

- Consider the influence of literature on culture past and present
- Understand cultural issues of contemporary society in literature

Module Assessment

Groups will deliver presentations in response to questions discussed in the lectures.

Module Recommended Reading

- Charles Dickens (title to be specified) and excerpts from European literature

人文社科 英国文化文学及社会学

英国文化文学及社会学

课程时间：7月19日至8月8日（第一期）

课程时长：3周

学分：相当于3个美国学分

要求：无

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）。

评估：通过个人和小组讲演进行评估。

培训技能：解决问题能力，团队合作能力，讲演能力，沟通能力。

所需材料：携带可用于讲演的笔记本电脑。

课程说明

本课程旨在提供社会学和文化研究主题的介绍。社会学家研究行为，信念，价值观，规范，组织，机构和其他描述社会特征并影响人们生活的社会力量。第一个模块着重于进行对日常生活中媒体和文化的社会分析。该模块将分析文化和媒体研究中的关键理论和争议。其中包括分析数字媒体，探讨文化生产，媒体和身份以及日常生活理论等主题。第二个模块介绍了欧洲的文化，文学和艺术。它提出了文化如何以及在多大程度上影响艺术的问题。

模块 1 | 社会学与文化研究

模块说明

该模块将向学生介绍文化和媒体研究的一些关键理论方法。其中我们将讨论如何理解与研究媒介表征相关的不同方法，并研究一系列主题，包括脆弱性，性别，社交媒体，行动主义，痛苦和伤害以及公众参与。学生将有机会提高讲演技巧，小组合作以及批判性地分析社会现象的能力。

模块主题

- 社交媒体
- 性别
- 行动主义与公众参与

学习目标

- 了解与媒介表征有关的关键理论和概念
- 探索媒介表征带来的不同问题和挑战
- 分析争议并进行讨论
- 参与，表达和提出想法

模块评估

学生将以小组形式进行有关课程期间提出的关键思想的讲演。

模块推荐读物

- 《代表性作品》，S. Hall (ed)，《文化表征与象征实践》(SAGE, 1997年)。
- 《脆弱性的力量：影响女权主义，同性恋和反种族主义媒体文化的动员》。Koivunen, A.Kyrölä, K.和Ryberg, I. (ed.) 2018。曼彻斯特：曼彻斯特大学出版社。第1章。
- “伊娃·卢娜的故事”（麦克米伦，1988年）《我们在泥土中诞生》。伊莎贝尔·阿连德。可在以下网址获得：

http://www.literaturewithleonetti.com/uploads/9/2/5/7/92571264/and_of_clay_are_we_created.pdf

- 《在奥巴马的暮色中看月光》，M. Kannan, R. Hall和M.W Hughey, 《人类与社会》 41/3 (2017) , 第287-298页。
- N. Clark和Y. Gunaratnam, “过高的责任：气候正义的地理学”，作者：J. Bhavnani, J. Foran, P. A. Kurian和D. Munshi (编辑) , 《气候的未来：重新构想全球气候正义》 (加利福尼亚大学) 出版社, 2018年。可访问：
https://eprints.lancs.ac.uk/id/eprint/125837/1/ExorbitantResponsibilityFINAL_copy.pdf

模块 2 | 欧洲文化、社会与文学

模块说明

十九世纪的英国（和欧洲）与二十一世纪的中国有着令人着迷的相似之处。在本模块中，我们将讨论四位作家：Turgenev, Balzac, Dickens和Trollope。这些重要的作家向我们展示了欧洲文化的永恒。文学天才是否可以在互联网时代也发挥这种影响力，这是一个值得争论的问题。该模块的特色是关于英国文化和剑桥在英国历史文化中的地位和影响的讲座。

模块主题

- 英国文化的形成
- 欧洲文学
- 欧洲艺术

学习目标

- 分析文学对过去和现在文化的影响
- 在文学中理解当代社会的文化问题

模块评估

学生将以小组形式解决被分配的问题并进行讲演。

模块推荐读物

- 查尔斯·狄更斯（Charles Dickens）（标题待定）和欧洲文学摘录

International Finance and Business Management

COURSE OVERVIEW

Course Dates: 19th July to 8th August (Session I)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: None.

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours).

Assessment: Assessed individually and in groups through group presentations.

Skills Trained: Case Study Analysis, Critical thinking, Teamwork, Presentation, Communication.

Materials Required: Laptop for preparing presentations.

COURSE DESCRIPTION

The ultimate goal of corporations is to take on the best possible projects (e.g. a plant expansion) and finance them the best way possible (e.g. issuing debt or equity). The time and uncertainty of investment payoffs make these problems nontrivial and essential for long-term success. One of the main questions of finance is to answer how to value and choose projects and to value of a company. The aim of the first module is to give you a framework to understand and answer these issues in theory and in practice. After gaining understanding of the fundamentals of corporate finance, the second module considers the Capitalist's Dilemma that the right thing for longterm prosperity is the wrong thing for most investorsshort-term. We will learn about one of the most influential business theories, disruptive innovation, and we will discuss business strategies for corporate social responsibility.

Module 1 | Corporate Finance

Module Description

First, we will discuss how economic variables affect financial markets and, in particular, stock prices and interest rates. We will examine and interpret information from the Financial Times, seeing in practice what the most important economic indicators are. Second, we will see an introduction to financial statements, talking about balance sheets and profit/loss statements. Third, we will see how to estimate the value of a company using the multiples technique applied to Apple. We will apply basic concepts to talk about techniques that are the main workhorses of valuation: Multiples and Discounted Cash Flows (DCF) valuation.

Module Topics

- How Are Financial Markets Connected to the Economy?
- Introduction to Accounting and Financial Statements
- Multiples Valuation

Module Aims and Objectives

- Understand financial markets and interpret the main movements of stock markets.
- Understand the basic structure of financial statements, in particular a balance sheet and a profit & loss statement of a company.
- Implement the multiples technique to value a stock relative to its peers.

Module Assessment

Students will analyze a case study and deliver presentations in small groups.

Module Recommended Reading

- Course pack will be provided with case studies, readings, and slides.
- Corporate Finance, by Stephen A. Ross, Randolph W. Westerfield and Jeffrey Jaffe (RWJ), 10th edition, McGraw-Hill 2013.

Module 2 | Business Innovation and Strategy

Module Description

In this module you will be introduced to key ideas in business strategy and will develop an understanding and ability to evaluate key strategic decisions. Leaders value innovation and aim to foster a culture of innovation in organizations. Yet, innovation is an ongoing challenge. This module defines disruptive innovation, a form of innovation that can be a major threat or advantage. The module also explores how leaders can have a positive impact on society and channel their influence for a better world.

Module Topics

- Business strategy
- Disruptive Innovation
- Impact Investing

Module Aims and Objectives

- Learn to identify stages of the innovation cycle
- Understand the Capitalist's Dilemma
- Improve professional communication skills

Module Assessment

Students will work in groups to generate a business idea for social impact. Groups will present their business proposal.

Module Recommended Reading

- "The Innovator's Dilemma" Author: Clayton Christensen
- "How Will You Measure Your Life?" Author: Clayton Christensen
- <https://www.deseretnews.com/article/865659714/Sarona-A-private-investment-firm-with-a-heart.html>

- <https://www.deseretnews.com/article/865666094/Embrace-the-disruption-innovation-that-enters-our-personal-lives.html>
- <https://www.deseretnews.com/article/865634210/Crowdfunding-lends-to-need-for-financial-literacy.html>

商科 国际金融与商业管理

国际金融与商业管理

课程时间：7月19日至8月8日（第一期）

课程时长：3周

学分：相当于3个美国学分

要求：无

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）。

评估：通过个人和小组讲演进行评估。

培训技能：案例研究分析能力，批判性思维，团队合作能力，讲演能力，沟通能力

所需材料：携带可用于讲演的笔记本电脑。

课程说明

公司的最终目标是承担可能的最佳项目（例如，工厂扩建）并以可能的最佳方式为其融资（例如，发行债务或股权）。投资回报的时间和不确定性使这些问题对于公司的长期成功至关重要。金融的主要问题之一是如何评估和选择项目以及如何评估公司。第一个模块的目的是为你提供一个框架来解决理论和实践上的问题。在了解了企业融资的基础知识之后，第二个模块将介绍资本主义的困境：对于长期繁荣而言是正确的事情对大多数短期投资者而言都是错误的。我们将学习最具影响力的商业理论之一，颠覆性创新，并讨论关于企业社会责任的商业策略。

模块 1 | 企业融资

模块说明

首先，我们将讨论经济变量如何影响金融市场，尤其是股票价格和利率。我们将检查和解释来自《金融时报》的信息，并在实践中了解最重要的经济指标是什么。其次，我们将介绍财务报表，讨论资产负债表和损益表。第三，我们将看到如何使用应用于苹果公司的倍数技术来估算公司的价值。我们将运用基本概念来讨论估值的主要手段：倍数和折现现金流（DCF）估值。

模块主题

- 金融市场如何与经济联系起来？
- 会计和财务报表导论
- 倍数估值

学习目标

- 了解金融市场并解释股票市场的主要动向。
- 了解财务报表的基本结构，特别是公司的资产负债表和损益表。
- 实施倍数技术对股票进行估值，并与同业做对比

模块评估

学生将以小组形式分析案例并进行讲演。

模块推荐读物

• 《公司融资》，斯蒂芬·罗斯（Stephen A. Ross），伦道夫·韦斯特菲尔德（Randolph W. Westerfield）和杰弗里·贾菲（Jeffrey Jaffe）（RWJ），第十版，麦格劳·希尔（McGraw-Hill）2013年。

模块 2 | 商业创新与策略

模块说明

在本模块中，将向您介绍商业战略中的关键思想，更好地理解关键战略决策并提高决策能力。领导者重视创新，并致力于在组织中培养创新文化。然而，创新是一项持续的挑战。该模块定义了颠覆式创新，这种创新形式可能是一种威胁也可能是一种优势。该模块也将探讨领导者如何对社会产生积极影响，以及如何发挥其影响力以创造更美好的世界。

模块主题

- 经营策略
- 颠覆式创新
- 影响力投资

学习目标

- 学习识别创新周期的各个阶段
- 了解资本家的困境
- 提高专业沟通能力

模块评估

学生将分组讨论并提出有关社会影响的商业理念，并将以讲演的形式展示该商业方案。

模块推荐读物

- 查《创新者的困境》作者：Clayton Christensen
- 《您将如何衡量自己的生活？》作者：克莱顿·克里斯滕森（Clayton Christensen）
- <https://www.deseretnews.com/article/865659714/Sarona-A-private-investment-firm-with-a-heart.html>
- <https://www.deseretnews.com/article/865666094/Embrace-the-disruption-innovation-that-enters-our-personal-lives.html>
- <https://www.deseretnews.com/article/865634210/Crowdfunding-lends-to-need-for-financial-literacy.html>

SESSION 2

2020.08.09-08.29

International Finance and Investment

COURSE OVERVIEW

Course Dates: 9th August to 29th August (Session II)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: None.

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours).

Assessment: Assessed individually and in groups through group presentations.

Skills Trained: Case Study Analysis, Critical thinking, Teamwork, Presentation, Communication.

Materials Required: Excel and laptop for preparing presentations.

COURSE DESCRIPTION

The ultimate goal of corporations is to take on the best possible projects (e.g. a plant expansion) and finance them the best way possible (e.g. issuing debt or equity). The time and uncertainty of investment payoffs make these problems nontrivial and essential for long-term success. One of the main questions of finance is to answer how to value and choose projects and to value a company. The aim of the first module is to give you a framework to understand and answer these issues in theory and in practice. After gaining understanding of the fundamentals of corporate finance, the second module introduces real estate investment. This module teaches the analytical techniques necessary to make effective real estate investment decisions. Excel based appraisal and performance evaluation techniques will be used to give course participants an opportunity to apply them to property development and investment deals.

Module 1 | Corporate Finance

Module Description

First, we will discuss how economic variables affect financial markets and, in particular, stock prices and interest rates. We will examine and interpret information from the Financial Times, seeing in practice what the most important economic indicators are. Second, we will see an introduction to financial statements, talking about balance sheets and profit/loss statements. Third, we will see how to estimate the value of a company using the multiples technique applied to Apple. We will apply basic concepts to talk about techniques that are the main workhorses of valuation: Multiples and Discounted Cash Flows (DCF) valuation.

Module Topics

- How Are Financial Markets Connected to the Economy?
- Introduction to Accounting and Financial Statements
- Multiples Valuation

Module Aims and Objectives

- Understand financial markets and interpret the main movements of stock markets.
- Understand the basic structure of financial statements, in particular a balance sheet and a profit & loss statement of a company.
- Implement the multiples technique to value a stock relative to its peers.

Module Assessment

Students will analyze a case study and deliver presentations in small groups.

Module Recommended Reading

Course pack will be provided with case studies, readings, and slides.

- Corporate Finance, by Stephen A. Ross, Randolph W. Westerfield and Jeffrey Jaffe (RWJ), 10th edition, McGraw-Hill 2013.

The course content is subject to change as necessary.

Module 2 | Real Estate Investment

Module Description

The module begins with an introduction to global real estate markets, real estate development and investment valuation using discounted cash flow projections, investment performance evaluation based on net present value (NPV) and internal rate of return (IRR). More advanced topics in real estate finance and risk analysis will focus on capital structure considerations between equity and debt finance, real estate investment trusts (REITs), and the subprime crisis in the USA and Europe.

Module Topics

- Real estate and investment valuation
- Cash flow methods
- Real estate debt and equity finance

Module Aims and Objectives

- Analyze the risk of different types of financing structures
- Evaluate the performance of real estate investment trusts (REITs)
- Understand real estate boom & bust behavior

Module Assessment

Students will work in small groups to analyze case studies that consider valuation and investment analyses for financing commercial investment and development.

Module Recommended Reading

- "Case study will be provided.
- Bruggeman W B and Fisher J D, Real Estate Finance & Investment, McGraw-Hill. DiPasquale D and Wheaton WC, Urban Economics and Real Estate Markets, Prentice Hall.
- Geltner D and Miller N, Commercial Real Estate Analysis and Investments, South-Western Thomson Learning.
- Johnson T, Davies K and Shapiro E, Modern Methods of Valuation, Estates Gazette.

国际金融与投资

国际金融与投资

课程时间：8月9日至8月29日（第二期）

课程时长：3周

学分：相当于3个美国学分

要求：无

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）。

评估：通过个人和小组讲演进行评估。

培训技能：案例研究分析能力，批判性思维，团队合作能力，讲演能力，沟通能力

所需材料：带有Excel，并可用于讲演的笔记本电脑。

课程说明

公司的最终目标是承担可能的最佳项目（例如，工厂扩建）并以可能的最佳方式为其融资（例如，发行债务或股权）。投资回报的时间和不确定性使这些问题对于公司的长期成功至关重要。金融的主要问题之一是如何评估和选择项目以及如何评估公司。第一个模块的目的是为你提供一个框架来解决理论和实践上的问题。在了解了企业融资的基础知识之后，第二个模块将介绍房地产投资。该模块教授有效的房地产投资决策所必需的分析技术。基于Excel的评估和绩效评估技术将使课程参与者有机会将其应用于房地产开发和投资交易。

模块 1 | 企业金融

模块说明

首先，我们将讨论经济变量如何影响金融市场，尤其是股票价格和利率。我们将检查和解释来自《金融时报》的信息，并在实践中了解最重要的经济指标是什么。其次，我们将介绍财务报表，讨论资产负债表和损益表。第三，我们将看到如何使用应用于苹果公司的倍数技术来估算公司的价值。我们将运用基本概念来讨论估值的主要手段：倍数和折现现金流（DCF）估值。

模块主题

- 金融市场如何与经济联系起来？
- 会计和财务报表导论
- 倍数估值

学习目标

- 了解金融市场并解释股票市场的主要动向。
- 了解财务报表的基本结构，特别是公司的资产负债表和损益表。
- 实施倍数技术对股票进行估值，并与同业做对比

模块评估

学生将以小组形式分析案例并进行讲演。

模块推荐读物

- 《公司融资》，斯蒂芬·罗斯（Stephen A. Ross），伦道夫·韦斯特菲尔德（Randolph W. Westerfield）和杰弗里·贾菲（Jeffrey Jaffe）（RWJ），第十版，麦格劳·希尔（McGraw-Hill）2013年。

模块 2 | 房地产投资

模块说明

该模块首先介绍全球房地产市场，使用折现现金流预测房地产开发和投资估值，投资绩效评估是基于净现值（NPV）和内部收益率（IRR）的。房地产金融和风险分析中更前沿的主题将集中在股票和债务金融以及房地产投资信托（REIT）和美国及欧洲的次贷危机之间的资本结构。

模块主题

- 房地产与投资估值
- 现金流量法
- 房地产债务和股权融资

学习目标

- 分析不同类型金融结构的风险
- 评估房地产投资信托（REIT）的绩效
- 了解房地产的繁荣与萧条

模块评估

学生将以小组形式分析为商业投资和发展筹集资金进行的估值和投资案例。

模块推荐读物

- 《麦格劳-希尔房地产金融与投资》 Bruggeman W B和Fisher J D， McGraw-Hill。
- 《城市经济学和房地产市场》， DiPasquale D和Wheaton WC， Prentice Hall。
- 《商业房地产分析和投资》 Geltner D和Miller N， 西南汤姆森学习中心。
- 《现代估价方法》， Johnson T， Davies K和Shapiro E， 房地产公报。

Fintech and International Finance

COURSE OVERVIEW

Course Dates: 9th August to 29th August (Session II)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: None.

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours).

Assessment: Assessed individually and in groups through group presentations.

Skills Trained: Critical Thinking, Case Study Analysis, Teamwork, Presentation, Communication.

Materials Required: Laptop with Excel for preparing presentations.

COURSE DESCRIPTION

The ultimate goal of corporations is to take on the best possible projects and finance them the best way possible. The time and uncertainty of investment payoffs make these problems nontrivial and essential for long-term success. The first module will cover questions of how to value and choose projects and how to value a company. In the second module, we will explore how technology is changing the finance industry. Over the entire history of finance research, it has been believed that markets are efficient and that prices reflect fundamental values. Over the last decade however, a number of researchers have documented that anomalies can be observed in returns to firms after an enormous variety of corporate events – from mergers to share repurchases to stock splits. FinTech has emerged to address information problems and coordinate business activity.

Module 1 | Finance

Module Description

First, we will discuss how economic variables affect financial markets and, in particular, stock prices and interest rates. We will examine and interpret information from the Financial Times, seeing in practice what the most important economic indicators are. Second, we will see an introduction to financial statements, talking about balance sheets and profit/loss statements. Third, we will see how to estimate the value of a company using the multiples technique applied to Apple. We will apply basic concepts to talk about techniques that are the main workhorses of valuation: Multiples and Discounted Cash Flows (DCF) valuation.

Module Topics

- How Are Financial Markets Connected to the Economy?
- Introduction to Accounting and Financial Statements
- Multiples Valuation

Module Aims and Objectives

- Understand financial markets and interpret the main movements of stock markets.
- Understand the basic structure of financial statements, in particular a balance sheet and a profit & loss statement of a company.
- Implement the multiples technique to value a stock relative to its peers.

Module Assessment

Students will analyze a case study and deliver presentations in small groups.

Module Recommended Reading

Course pack will be provided with case studies, readings, and slides.

- Corporate Finance, by Stephen A. Ross, Randolph W. Westerfield and Jeffrey Jaffe (RWJ), 10th edition, McGraw-Hill 2013.

The course content is subject to change as necessary.

Module 2 | Fintech Revolution

Module Description

The FinTech revolution is rapidly transforming the financial industry. This module explores how technology is helping us deal with asymmetric information in firms and markets. The basic issue in this module is how to coordinate on a goal to achieve something. There are two basic approaches: Coordinating through a market or coordinating through a hierarchy (a firm). Effective coordination means first dealing with imperfect, asymmetric information, and behavioral biases.

Module Topics

- Asymmetric Information
- Information Flows in Firms
- Information Flows in Markets
- Disruption in Financial Intermediaries
- Automation, AI, and Blockchain
- The Coordination Problem

Module Aims and Objectives

- Understand decision making and communication in the firm.
- Learn how technology is disrupting one industry: The financial intermediary industry.

Module Assessment

Students will work in small groups to analyze a case study and deliver presentations.

Module Recommended Reading

Course pack will be provided with case studies, readings, and slides. The course content is subject to change as necessary.

金融科技与行为金融学

金融科技与行为金融学

课程时间：8月9日至8月29日（第二期）

课程时长：3周

学分：相当于3个美国学分

要求：无

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）。

评估：通过个人和小组讲演进行评估。

培训技能：案例研究分析能力，批判性思维，团队合作能力，讲演能力，沟通能力

所需材料：带有Excel，并可用于讲演的笔记本电脑。

课程说明

公司的最终目标是承担可能的最佳项目，并以可能的最佳方式为其融资。投资回报的时间和不确定性使这些问题对于公司的长期成功至关重要。课程的第一个模块将涵盖如何评估和选择项目以及如何评估公司的问题。在第二个模块中，我们将探讨技术如何改变金融业。在整个金融研究的历史上，人们一直认为市场是有效的，价格反映了基本价值。然而，在过去的十年中，许多研究人员记录到，在发生了各种各样的公司事件之后，从合并，股票回购到股票拆分，是可以观察到公司收益中存在的异常。金融科技的出现，可以解决信息问题并协调业务活动。

模块 1 | 金融

模块说明

首先，我们将讨论经济变量如何影响金融市场，尤其是股票价格和利率。我们将检查和解释来自《金融时报》的信息，并在实践中了解最重要的经济指标是什么。其次，我们将介绍财务报表，讨论资产负债表和损益表。第三，我们将看到如何使用应用于苹果公司的倍数技术来估算公司的价值。我们将运用基本概念来讨论估值的主要手段：倍数和折现现金流（DCF）估值。

模块主题

- 金融市场如何与经济联系起来？
- 会计和财务报表导论
- 倍数估值

学习目标

- 了解金融市场并解释股票市场的主要动向。
- 了解财务报表的基本结构，特别是公司的资产负债表和损益表。
- 实施倍数技术对股票进行估值，并与同业做对比

模块评估

学生将以小组形式分析案例并进行讲演。

模块推荐读物

• 《公司融资》，斯蒂芬·罗斯（Stephen A. Ross），伦道夫·韦斯特菲尔德（Randolph W. Westerfield）和杰弗里·贾菲（Jeffrey Jaffe）（RWJ），第十版，麦格劳·希尔（McGraw-Hill）2013年。

课程包将提供案例研究，阅读材料和幻灯片。

模块 2 | 金融科技革命

模块说明

金融科技革命正在迅速改变金融业。本模块探讨技术如何帮助我们处理公司和市场中的不对称信息。本模块中的基本问题是如何协调目标以实现目标。有两种基本方法：通过市场进行协调或

模块主题

- 非对称的信息
- 企业信息流
- 市场信息流
- 金融中介机构的破坏
- 自动化，人工智能和区块链
- 协调问题

学习目标

- 了解公司的决策和沟通。
- 了解技术如何变革一个行业：金融中介行业。

模块评估

学生将以小组形式分析案例并进行讲演。

模块推荐读物

提供案例研究。

课程内容可能会根据需要进行更改。

International Business Management and Leadership

COURSE OVERVIEW

Course Dates: 9th August to 29th August (Session II)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: None.

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours).

Assessment: Assessed individually and in groups through group presentations.

Skills Trained: Critical Thinking, Case Study Analysis, Teamwork, Presentation, Communication.

Materials Required: Laptop with Excel for preparing presentations.

COURSE DESCRIPTION

This course raises discussion about how leaders guide an organization or team toward success while also creating positive social impact in a global context. In the first module, we will focus on one of the most influential theories for understanding business success and failure, disruptive innovation. We will discuss business strategies for making an impact beyond the organization and benefiting society. This theme continues in the second module, as we look at global leadership. The world is made up of individual countries which largely get along with each other, trade, and talk to each other through the channel of Diplomacy. With the rise of non-governmental organizations, individuals are also playing an influential role on the world stage. The module aims to develop understanding of the global context in which individuals and organizations can work to solve problems and promote peace.

Module 1 | Business Innovation and Strategy

Module Description

Leaders value innovation and aim to foster a culture of innovation in organizations. Yet, innovation is an ongoing challenge. This module defines disruptive innovation, a form of innovation that can be a major advantage for organizations to harness growth. You will be introduced to ways of thinking about business strategy and will develop the ability to evaluate strategic decisions. The module explores how business leaders can have a strategic and positive impact beyond the organization.

Module Topics

- Business strategy
- Disruptive Innovation
- Impact Investing

Module Aims and Objectives

- Learn to identify stages of the innovation cycle
- Understand the Capitalist's Dilemma
- Improve professional communication skills

Module Assessment

Students will work in groups to generate a business idea for social impact. Groups will present their business proposal.

Module Recommended Reading

- "The Innovator's Dilemma" Author: Clayton Christensen
- "How Will You Measure Your Life?" Author: Clayton Christensen
- <https://www.deseretnews.com/article/865659714/Sarona-A-private-investment-firm-with-a-heart.html>
- <https://www.deseretnews.com/article/865666094/Embrace-the-disruption-innovation-that-enters-our-personal-lives.html>
- <https://www.deseretnews.com/article/865634210/Crowdfunding-lends-to-need-for-financial-literacy.html>

Module 2 | Global Leadership

Module Description

This module aims to develop understanding of the global context in which leaders can channel their influence for a better world. First, we will discuss leadership and the qualities of an effective leader. We will then examine a range of international organizations and their different purposes. We will look at the political, economic and social environments in which international organizations operate and the challenges they face.

Module Topics

- Leadership development
- International leadership
- The rise of NGOs

Module Aims and Objectives

- Recognize competencies of leadership
- Appreciate the role of the NGO sector
- Evaluate how shifts in global power may be accomplished peacefully

Module Assessment

Groups will be assigned questions from the lectures and group presentations will be assessed based on content and participation.

Module Recommended Reading

- Mendenhall, M.E., Osland, J.S., Bird, A., Oddou, G.R., Maznevski, M.L., Stevens, M.J., and Stahl, G.K. (2013). *Global Leadership: Research, Practice and Development* (2nd Ed.). New York: Routledge. ISBN-13: 978-0415808866
- George, B., Sims, P., McLean, A.N., & Mayer, D. (2007). *Discovering Your Authentic Leadership*. Harvard Business Review, October 2007.

- https://scholar.princeton.edu/sites/default/files/gji3/files/power_and_liberal_order.pdf<https://www.theguardian.com/commentisfree/2017/sep/09/global-power-shifting-asia-europe-must-adapt>
- <http://acuns.org/wp-content/uploads/2013/11/gg-weiss.pdf>
- <https://ec.europa.eu/digital-single-market/en/content/governance-triangle-regulatory-standards-institutions-and-shadow-state>

国际商业管理与领导力

国际商业管理与领导力

课程时间：8月9日至8月29日（第二期）

课程时长：3周

学分：相当于3个美国学分

要求：无

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）。

评估：通过个人和小组讲演进行评估。

培训技能：批判性思维，团队合作能力，讲演能力，沟通能力

所需材料：携带可用于讲演的笔记本电脑。

课程说明

本课程将提出有关领导者如何引导组织或团队取得成功，同时在全球范围内创造积极的社会影响的讨论。在第一个模块中，我们将重点介绍最有影响力的理论之一，以了解业务的成功与失败并理解颠覆式创新。我们将讨论在组织之外产生影响并造福社会的业务战略。这个主题将在第二个模块中持续，同时我们也将探讨全球领导力。世界由各个国家组成，这些国家在很大程度上通过外交途径相处，进行贸易和相互对话。随着非政府组织的兴起，个人在世界舞台上也发挥着重要作用。该模块旨在加深对个人和组织可以在全球化背景下解决问题和促进和平的理解。

模块 1 | 业务创新与战略

模块说明

领导者重视创新，并致力于在组织中培养创新文化。然而，创新是一项持续的挑战。该模块定义了颠覆式创新，这是一种创新形式，可以成为组织增长的主要优势。同时该模块将介绍有关业务战略的思维方式，及如何发展评估战略决策的能力。该模块探讨了企业领导者如何在组织范围之外提出战略并产生积极影响。

模块主题

- 经营策略
- 颠覆式创新
- 影响力投资

学习目标

- 学习识别创新周期的各个阶段
- 了解资本家的困境
- 提高专业沟通能力

模块评估

学生将分组讨论并提出有关社会影响的商业理念，并将以讲演的形式展示该商业方案。

模块推荐读物

- 《创新者的困境》作者：Clayton Christensen
- 《您将如何衡量自己的生活？》作者：克莱顿·克里斯滕森（Clayton Christensen）
- <https://www.deseretnews.com/article/865659714/Sarona-A-private-investment-firm-with-a-heart.html>
- <https://www.deseretnews.com/article/865666094/Embrace-the-disruption-innovation-that-enters-our-personal-lives.html>
- <https://www.deseretnews.com/article/865634210/Crowdfunding-lends-to-need-for-financial-literacy.html>

模块 2 | 全球领导力

模块说明

领导者重视创新，并致力于在组织中培养创新文化。然而，创新是一项持续的挑战。该模块定义了颠覆式创新，这是一种创新形式，可以成为组织增长的主要优势。同时该模块将介绍有关业务战略的思维方式，及如何发展评估战略决策的能力。该模块探讨了企业领导者如何在组织范围之外提出战略并产生积极影响。

模块主题

- 经营策略
- 颠覆式创新
- 影响力投资

学习目标

- 学习识别创新周期的各个阶段
- 了解资本家的困境
- 提高专业沟通能力

模块评估

学生将分组讨论并提出有关社会影响的商业理念，并将以讲演的形式展示该商业方案。

模块推荐读物

- 《全球领导力：研究，实践和发展》（第二版），M.E. Mendenhall, J.S.Osland A.Bird, G.R.Oddou, M.L.Maznevski, M.J.Stevens和G.K. Stahl（2013），纽约：Routledge，ISBN-13：978-0415808866
- 《发现您的真实领导力》，乔治·B.，西姆斯·P.，麦克莱恩·A.N.和梅耶·D.（2007），《哈佛商业评论》，2007年10月。

- https://scholar.princeton.edu/sites/default/files/gji3/files/power_and_liberal_order.pdf
- <https://www.theguardian.com/commentisfree/2017/sep/09/global-power-shifting-asia-europe-must-adapt>
- <http://acuns.org/wp-content/uploads/2013/11/gg-weiss.pdf>
- <https://ec.europa.eu/digital-single-market/zh-CN/content/governance-triangle-regulatory-standards-institutions-and-shadow-state>

课程内容可能会根据需要进行更改。

International Accounting and Cambridge Economics

COURSE OVERVIEW

Course Dates: 9th August to 29th August (Session II)

Course Duration: 3-Weeks

Credit Equivalency: 3 US

Prerequisites: None.

Methodology: Lecture (36 hours), Supervision discussion (8 hours), Organization visit (4 hours).

Assessment: Assessed individually and in groups through group presentations.

Skills Trained: Critical Thinking, Case Study Analysis, Teamwork, Presentation, Communication.

Materials Required: Excel and laptop for preparing presentations.

COURSE DESCRIPTION

Accounting and economics provide different tools and theories which together are essential to informing financial decisions in organizations. This course teaches the fundamentals through practical applications in private and public sectors. The first module introduces accounting principles through analysis of real estate investment. This module develops an understanding of the techniques necessary to make effective investment decisions. Excel based appraisal and performance evaluation techniques will be used to give course participants an opportunity to apply them to property development and investment deals. The second module focuses on economics with a Cambridge approach. The classes loosely follow the structure and contents of major textbooks in International Economics, with an approach informed by other social science disciplines. After an overview of the main themes of micro and macroeconomic analysis, we will explore applications by learning about European integration and Britain's exit from the EU.

Module 1 | Accounting and Investment

Module Description

The module begins with an introduction to global real estate markets, real estate development and investment valuation using discounted cash flow projections, investment performance evaluation based on net present value (NPV) and internal rate of return (IRR). More advanced topics in real estate finance and risk analysis will focus on capital structure considerations between equity and debt finance, real estate investment trusts (REITs), and the subprime crisis in the USA and Europe.

Module Topics

- Introduction to Accounting and financial statements
- Cash flow methods
- Real estate debt and equity finance

Module Aims and Objectives

- Understand financial statements
- Analyze the risk of different types of financing structures
- Evaluate the performance of real estate investment trusts (REITs)
- Understand real estate boom & bust behavior

Module Assessment

Students will work in small groups to analyze case studies that consider valuation and investment analyses for financing commercial investment and development.

Module Recommended Reading

- Bruggeman W B and Fisher J D, Real Estate Finance & Investment, McGraw-Hill.
- DiPasquale D and Wheaton WC, Urban Economics and Real Estate Markets, Prentice Hall.
- Geltner D and Miller N, Commercial Real Estate Analysis and Investments, South-Western Thomson Learning.
- Johnson T, Davies K and Shapiro E, Modern Methods of Valuation, Estates Gazette.

Module 2 | Cambridge Economics

Module Description

This course will introduce microeconomics and macroeconomics with the aim to understand the context and implications of Britain's exit from the European Union. After an overview of the main themes of microeconomic analysis, the course will cover macroeconomic concepts including: Invisible Hand, Division of Labour, and the Wealth of Nations; Growth, Development, and Poverty. We will then explore Brexit, economic and political regionalism, and prospects of European Union integration.

Module Topics

- Microeconomics and Macroeconomics
- International Financial Integration
- The EU and Financial Meltdown

Module Aims and Objectives

- Consider what makes a good economist
- Understand the objectives and conflicts of a Macroeconomic Union
- Evaluate possible scenarios for the future of economic integration

Module Assessment

Small group presentations based on assigned questions.

Module Recommended Reading

Some preparatory suggestions are included here; more will be provided before and during the course.

- Acemoglu, D. and J. Robinson (2013). *Why Nations Fail: The Origins of Power*,
- *Prosperity and Poverty*. London: Profile Books.
- Chang, H-J.(2014), *Economics: The User's Guide*. A Pelican Introduction.
- Chang, H-J.(1994), *The Political Economy of Industrial Policy*. Palgrave Macmillan.

- El-Agraa, A. and B. Ardy (2011), The European Union. Cambridge University Press.

You might use these textbooks as a guideline. An important feature of this course, however, is that you will be encouraged to widen your learning by exploring a variety of policy-oriented, current resources from discussion papers, to official documents, to podcasts of relevant radio programs, official speeches etc.

The course is subject to change if necessary.

国际会计与剑桥经济学

国际会计与剑桥经济学

课程时间：8月9日至8月29日（第二期）

课程时长：3周

学分：相当于3个美国学分

要求：无

课程结构：专业讲座课程（36小时），专业辅导课程（8小时），机构探访课程（4小时）。

评估：通过个人和小组讲演进行评估。

培训技能：批判性思维，团队合作能力，讲演能力，沟通能力

所需材料：携带可用于讲演的笔记本电脑。

课程说明

本课程将提出有关领导者如何引导组织或团队取得成功，同时在全球范围内创造积极的社会影响的讨论。在第一个模块中，我们将重点介绍最有影响力的理论之一，以了解业务的成功与失败并理解颠覆式创新。我们将讨论在组织之外产生影响并造福社会的业务战略。这个主题将在第二个模块中持续，同时我们也将探讨全球领导力。世界由各个国家组成，这些国家在很大程度上通过外交途径相处，进行贸易和相互对话。随着非政府组织的兴起，个人在世界舞台上也发挥着重要作用。该模块旨在加深对个人和组织可以在全球化背景下解决问题和促进和平的理解。

模块 1 | 会计与投资

模块说明

该模块首先介绍全球房地产市场，使用折现现金流预测房地产开发和投资估值，投资绩效评估是基于净现值（NPV）和内部收益率（IRR）的。房地产金融和风险分析中更前沿的主题将集中在股票和债务金融以及房地产投资信托（REIT）和美国及欧洲的次贷危机之间的资本结构。

模块主题

- 会计和财务报表导论
- 现金流量法
- 房地产债务和股权融资

学习目标

- 了解财务报表
- 分析不同类型金融结构的风险
- 评估房地产投资信托（REIT）的绩效
- 了解房地产的繁荣与萧条

模块评估

学生将以小组形式分析为商业投资和发展筹集资金进行的估值和投资案例。

模块推荐读物

- 《麦格劳-希尔房地产金融与投资》 Bruggeman W B和Fisher J D, McGraw-Hill。
- 《城市经济学和房地产市场》， DiPasquale D和Wheaton WC, Prentice Hall。
- 《商业房地产分析和投资》 Geltner D和Miller N, 西南汤姆森学习中心。
- 《现代估价方法》， Johnson T, Davies K和Shapiro E, 房地产公报。

模块 2 | 剑桥经济学

模块说明

本课程将介绍微观经济学和宏观经济学，旨在了解英国退出欧盟的背景和意义。在概述了微观经济分析的主要主题之后，本课程将涵盖宏观经济概念，包括：看不见的手，劳动分工和国家财富；增长，发展与贫困。然后，我们将探讨英国脱欧，经济和地方民族主义主义以及欧盟一体化的前景。

模块主题

- 微观经济学和宏观经济学
- 国际金融一体化
- 欧盟与金融危机

学习目标

- 思考什么才是优秀的经济学家
- 了解宏观经济联盟的目标和冲突
- 评估未来经济一体化的可能现象

模块评估

以小组形式对被分配到的问题进行讲演。

模块推荐读物

以下提供一些关于准备的建议；在课程开始之前和期间将提供更多内容。

- 《为什么国家失败：权力的起源，繁荣与贫困》，Acemoglu, D. J. Robinson (2013)，伦敦：简介书籍。
- 《经济学：用户指南》，Chang, H-J (2014)，鹈鹕介绍。
- 《产业政策的政治经济学》，Chang, H-J (1994)，帕格雷夫·麦克米伦 (Palgrave Macmillan)。
- El-Agraa A. 和 B. Ardy (2011)，欧洲联盟，剑桥大学出版社。

你可以将这些教科书当作指导用书。但是，本课程的一个重要特点是，我们鼓励你通过探索各种以政策为导向的最新资源，包括讨论文件，官方文件，相关广播节目的播客，官方演讲等，以扩大学习范围。

如有必要，课程可能会有所更改。

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