

#### "Jiao Tong Global Virtual Classroom" Initiative

#### Spring 2022"Shared Courses"



#### 1. Introduction

"Jiao•Tong Global Virtual Classroom (Jiao•Tong GVC)" Initiative encourages Shanghai Jiao Tong University (SJTU) faculty to co-create collaborative online international learning courses with peers at universities around the world. Virtual exchanges foster valuable, sustainable, and accessible international experiences for all SJTU students. SJTU faculty and their international partners jointly build or share undergraduate or postgraduate courses.

Jiao Tong GVC courses are delivered either synchronously or asynchronously. Students will be able to gain global perspectives and deepen their understanding of the subject matter and cross-culture through engaging in the global virtual classroom. This is where the planned program comes in: Universities share quality teaching resources, that students from different



regions and cultural backgrounds have golden opportunities to exchange ideas and inspire each other in the same class.

#### 2. Academic Courses

- Courses taught in English, covering both undergraduate and postgraduate levels
- Covering all disciplines: Science, Engineering, Agriculture, Medicine, Humanities and Social Sciences
- **SJTU Transcript**: The academic transcript will be sent to students' home institution directly.
- Cost: These courses are offered to students of Partner Universities at no cost.

#### 3. Practice of Fall 2021

In Fall 2021, **20 "Shared Courses" of "Jiao Tong GVC"** have been provided for **15 Partner Universities and The Association of Pacific Rim Universities** (APRU), which attracted more than 90 students from **15 universities** of **9** countries/regions in Asia, Europe, North America and South America.

#### 4. Eligibility & Requirement

To be recommended for participating in virtual exchange, applicants must meet Page 2 of 37



all requirements below:

· Applicants must be enrolled at their home Institution during the

Spring 2022 semester.

- English language proficiency requirements
  - IELTS 6.0, TOFEL 90, or other certificate showing the equivalent competency of English (waived for English native speakers)
- **Others:** Applicants should meet the requirements of home intuition for

virtual exchange.

\* Important Note:

"Jiao<sup>o</sup>Tong GVC" program only open to virtual exchange students. For Normal Exchange students, please refer to <u>Study@SJTU</u>.

#### 5. Application for Shared Courses

#### Before Applying

Please check if there are any pre-requisite or special requirements before applying for the course(s).

#### Time for Application

Deadline: 30 January, 2022

#### Application Procedures

- a. To select **no more than 3 courses** from the course list of Spring 2022;
- b. To download the **application form** and submit to your home institution



c. SJTU coordinator to confirm with the applicant's home university whether the application is endorsed

#### 6. Contact Information

If any questions arise, please kindly contact Lina Tao, Program Coordinator

#### at nalitao0504@sjtu.edu.cn.

NOW please download the **application form** to start your journey of virtual exchange at SJTU.



#### Spring 2022 "Shared Courses"

Course 1: Computational Physics (UG/Grad)	6
Course 2: Lie Groups and Lie Algebras (UG/Grad)	8
Course 3: Materials Chemistry (UG/Grad)	10
Course 4: Fundamentals of Materials Science 2 (UG/Grad)	12
Course 5: Data Structures and Algorithms (UG/Grad)	14
Course 6: VLSI Design I (UG/Grad)	15
Course 7: Methods of Applied Mathematics (UG/Grad)	16
Course 8: Introduction to Data Science (UG/Grad)	18
Course 9: AI Theoretical Basis and MindSpore Development Practice (UG/Grad)	20
Course 10: Multiphase Flow and Heat Transfer (Grad)	21
Course 11: Food Quality and Safety Detection Technology (Grad)	22
Course 12: Scientific Writing and Presentation (UG/Grad)	24
Course 13: Bank Management (UG/Grad)	26
Course 14: The Law of the Sea and China's Practice (UG/Grad)	28
Course 15: Contract Law and Financial Markets (UG/Grad)	30
Course 16: China's Social Welfare Policies & Practices (UG/Grad)	32
Course 17: Elementary Chinese 1 (UG/Grad)	34
Course 18: Two Thousand Years of Sino-foreign Cultural Exchanges (UG/Grad)	36

- Science, Engineering and Biological Sciences: Course 1-12
- Humanities and Social Sciences:
  Course 13-18

\* **UG** stands for courses open for undergraduate students only; **Grad** stands for courses open for graduate students only; **UG/Grad** stands for courses open for both.

#### Please find more details of "Shared Course" as follows.



# **Course 1: Computational Physics (UG/Grad)**

PHY2505-2 Computational Physics		
Number of Credits	3	
Teaching Hours	48	
Offering School	School of Physics and Astronomy	
Course Teacher	Yue Meng	
Course Level	Undergraduate Level	
Language of Instruction	English	
First Day of Class	14 Feb 2022	
Last Day of Class	1 Jun 2022	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	Mondays 8:00 a.m9:40 a.m. (Bi-weekly) from Week 2-16 + Wednesdays 10:00 a.m11:40 a.m. from Week 1-16 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	Basic Linux usage, PC	
Course Description	The course is characterized by its interdisciplinary nature, with its topics ranging from the classical mechanics, thermodynamics, electromagnetism, fractal theory, quantum mechanics in the discipline of physics, to programming, numerical computation, data analysis and etc. in the discipline of computer science. The course intends to follow the guidelines of student-centered teaching. After learning the course, the students shall be able to apply and evaluate various numerical methods to solve practical physical problems, they shall thus be able to explore new physical phenomenon and enhance their problem-solving skills.	
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.	



Course Introduction Video	Coming soon
This course is available on <u>APRU-VSE platform</u> .	



# Course 2: Lie Groups and Lie Algebras (UG/Grad)

MA418 Lie Groups and Lie Algebras		
Number of Credits	3	
Teaching Hours	48	
Offering School	School of Mathematical Sciences	
Course Teacher	Tudor Stefan Ratiu	
Course Level	Undergraduate Level	
Language of Instruction	English	
First Day of Class	14 Feb 2022	
Last Day of Class	30 May 2022	
Course Component	Lecture/Discussion	
Mode of Teaching	Synchronous	
Meeting Time	Mondays 8:00 a.m 10:45 a.m. Week 1-16 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	For undergraduate and graduate students	
Course Description	The purpose of this course is to provide an introduction to Lie groups and Lie algebras. This course is divided into two parts taught every Spring semester. The first part presents the basic structure theory of complex semi-simple Lie algebras up to and including the classification by Dynkin diagrams. The second part presents the basic theory of Lie groups starting with elementary properties and going through the standard results up to and including Lie's Third Theorem. For the first part, a good knowledge of advanced linear algebra is needed. For the second part, familiarity with manifolds is advised but not necessary since it will be reviewed. The two parts are independent of each other. The basic reference books are Humphries "Introduction to Lie algebras and their	



	representations", Duistermaat and Kolk "Lie Groups", Knapp "Lie
	groups, beyond an introduction", plus other secondary sources that
	could serve for additional reading, depending on the tine interests
	of the students. Depending on the background and interest of the
	students, the material of the course can emphasize certain topics.
	Lie theory is basic to most areas of mathematics, physics, and engineering. The goal is to familiarize the students with this theory
	so that they can use Lie theory in their own course work and
	research. In this class, Professor could answer students' questions
	in 6 languages: English, German, French, Spanish, Portuguese,
	Romanian.
C11 alarma	English
Syllabus	*Please open the link in Firefox or Google Chrome Browser.
Course	
Introduction	Coming soon
Video	
This course is avai	lable on APRU-VSE platform.



# Course 3: Materials Chemistry (UG/Grad)

MSE2602-1 Materials Chemistry		
Number of Credits	2	
Teaching Hours	32	
Offering School	School of Materials Science and Engineering	
Course Teacher	Huanan Duan & Chuanliang Feng	
Course Level	Undergraduate Level	
Language of Instruction	English	
First Day of Class	15 Feb 2022	
Last Day of Class	31 May 2022	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	Tuesdays, 8:00 a.m10:00 a.m. Week 1-16 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	Sophomore with major in Materials Science	
Course Description	Materials chemistry is the study of the synthesis, structure, properties, and application of solid materials. Our technology- driven world is fuelled by advances in materials chemistry with examples of application in areas such as microelectronics, polymers, and energy technology. This course introduces the materials chemistry of several major categories of materials (metals, ceramics and glasses, semiconductors, polymers, nanomaterials) with the emphasis of materials synthesis. The topics span from traditional extractive metallurgy to more recent development of nanomaterials and biomaterials. Through the study of this course, students can master the basic knowledge and theory in the field of materials science and chemical preparation in the material industry, understand the industrial status of related fields, research frontiers, and the concepts of environmental protection and sustainable development that may be involved, and learn to analyze and	

大学 Jiao Tong Global Virtual Classroom
solve problems by applying the basic knowledge and literature study. This course also lays a good foundation of knowledge in materials chemistry and thinking methods for the undergraduate study of materials discipline.
The main contents of this course include the introduction of material chemistry, the theoretical basis of bonding theory and crystal field theory, basic metallurgy methods, the electrochemical methods, preparation methods for inorganic materials (including nanoparticles, thin films, ceramics etc.) synthesis and preparation of polymer materials; the chemistry of organic/inorganic hybrid materials.
English *Please open the link in Firefox or Google Chrome Browser.
<u>Link</u>



## **Course 4: Fundamentals of Materials Science 2**

### (UG/Grad)

MSE2606 Fundamentals of Materials Science 2		
Number of Credits	3	
Teaching Hours	48	
Offering School	School of Materials Science and Engineering	
Course Teacher	Kolan M. Reddy & Guo Qiang	
Course Level	Undergraduate Level	
Language of Instruction	English	
First Day of Class	14 Feb 2022	
Last Day of Class	5 May 2022	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	Mondays 8:00 a.m9:40 a.m.+ Thursdays 10:00 a.m11:40 a.m. Week 1-12 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	For students majored in materials science & engineering, mechanical engineering, physics and etc. Prerequisites include calculus and college physics.	
Course Description	"Fundamentals of Materials Science" is one of the core curriculum for university/college students in the discipline of materials and metallurgy. The fundamentals of materials science is presented by lectures, class discussions, tutorials, laboratory and case studies on particular academic topics. In order to investigate the common laws for materials, the focus is on the internal relationships among the processing, structure, properties and performance for three different types of materials: metals, ceramics and polymers. The course provides guidance for materials design and application and lays a solid theoretical foundation for subsequent advanced courses on materials science	



Jiao∘Tong Global Virtual Classroom

	and engineering. MSE2606 is the second part of this course, and will cover diffusion, phase diagram and phase transformations.
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.
Course Introduction Video	<u>English</u>
This course is available on <u>APRU-VSE platform</u> .	



# **Course 5: Data Structures and Algorithms (UG/Grad)**

VE281 Data Structures and Algorithms		
Number of Credits	4	
Teaching Hours	62	
Offering School	UM-SJTU Joint Institute	
Course Teacher	<u>Hongyi Xin</u>	
Course Level	Undergraduate Level	
Language of Instruction	English	
First Day of Class	9 May 2022 TBD	
Last Day of Class	5 Aug 2022 TBD	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	TBD Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	Introduction to programming + Discrete Math/Computer Science/Junior	
Course Description	This course includes introduction to algorithm analysis and Big- Oh notation; fundamental data structures including priority queues, hash tables, binary trees, binary search trees, balanced trees, and graphs; searching and sorting algorithms; basic graph algorithms; and introduction to dynamic programming.	
Syllabus	<u>English</u> *Please open the link in Firefox or Google Chrome Browser.	
Course Introduction Video	<u>Link</u>	
This course is avail	able on <u>APRU-VSE platform</u> .	



# Course 6: VLSI Design I (UG/Grad)

VE427 VLSI Design I	
Number of Credits	4
Teaching Hours	58
Offering School	UM-SJTU Joint Institute
Course Teacher	Xuyang Lu
Course Level	Undergraduate Level
Language of Instruction	English
First Day of Class	9 May 2022 TBD
Last Day of Class	5 Aug 2022 TBD
Course Component	Lecture
Mode of Teaching	Synchronous
Meeting Time	TBD Course recordings available for students.
Time Zone	Beijing Time (UTC+8)
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	For 3rd/4th year undergraduate students
Course Description	This course is primarily designed for senior undergraduate students interested in integrated circuit design. We will cover the fundamentals and the tools for designing a real-life system. Students are expected to learn digital circuit design and get familiar with design tools including cadence and Synopsys.
Syllabus	English
Course Introduction Video	Link
This course is availab	le on <u>APRU-VSE platform</u> .



# **Course 7: Methods of Applied Mathematics (UG/Grad)**

VV557 Methods of Applied Mathematics		
Number of Credits	3	
Teaching Hours	48	
Offering School	UM-SJTU Joint Institute	
Course Teacher	Horst Hohberger	
Course Level	Postgraduate Level	
Language of Instruction	English	
First Day of Class	14 Feb 2022	
Last Day of Class	20 Apr 2022	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	Mondays: 12:55 p.m15:30 p.m. & Wednesdays: 12:10 p.m13:50 p.m. Week 1-10 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	Students must have previously taken courses on multivariable calculus, linear algebra and ordinary differential equations. Previous knowledge of partial differential equations is desirable but not necessary. The course is aimed at advanced undergraduate students as well as postgraduate students.	
Course Website	English	
Course Description	The course revolves around solving differential equations through methods inspired by the treatment of point sources (charges, masses, forces, etc.). Examples from mechanical as well as electrical engineering will be used throughout. Our initial motivation is the desire to understand the treatment of point sources. Starting from the Dirac delta function as a formal symbol to denote a point source, we begin a formal treatment of generalized functions (distributions), including principal value integrals, notions of convergence and delta families, the distributional Fourier transform and solutions of distributional equations.	



#### Jiao Tong Global Virtual Classroom

	We will then apply the theory of distributions to ordinary differential equations (ODEs). Strong, weak and distributional solutions are introduced and general solution formulas obtained. The main focus is then on obtaining Green's functions for boundary value problems (BVPs) for ODEs, leading to a brief discussion of solvability and modified Green's functions for ODEs.
	The final part of the course extends the ODE methods to PDEs. Green's formulas for boundary value problems of the first, second and third kind are derived. Subsequently, methods for finding Green's functions are explored, including that of full and partial eigenfunction expansions and the method of images. To round off the topic, a short introduction to the use of Green's functions for the Laplace equation in the boundary element method (BEM) is presented.
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.
Course Introduction Video	English



# **Course 8: Introduction to Data Science (UG/Grad)**

ECE4710J Introduction to Data Science		
Number of Credits	4	
Teaching Hours	64	
Offering School	UM-SJTU Joint Institute	
Course Teacher	Ailin Zhang	
Course Level	Undergraduate Level	
Language of Instruction	English	
First Day of Class	9 May 2022 TBD	
Last Day of Class	5 August 2022 TBD	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	TBD Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	For senior undergraduates and graduates.	
Course Description	The course will cover concepts and skills to tackle real-world data science problems. We will follow the data science life cycle to discuss data collection, data cleaning, data visualization, modeling, and data informed decision making. We will introduce concepts in probability, statistical inference, and machine learning. By working on real datasets, you will develop skills in programing and scientific computation (R and Python). In the course, you will learn how to build data-driven models from scratch to inform decision making.	
Syllabus	<u>English</u> *Please open the link in Firefox or Google Chrome Browser.	



Jiao∘Tong Global Virtual Classroom

Course Introduction Video
---------------------------------



# **Course 9: AI Theoretical Basis and MindSpore**

# **Development Practice (UG/Grad)**

AI010 AI Theoretical Basis and MindSpore Development Practice		
Number of Credits	1	
Teaching Hours	16	
Offering School	Student Innovation Center	
Course Teacher	Silva Xiao (SJTU) & Haocong Wang (Expert from Huawei Co.,Ltd)	
Course Level	Undergraduate Level	
Language of Instruction	English	
First Day of Class	23 Mar 2022	
Last Day of Class	13 Apr 2022	
Course Component	Lecture & Discussion	
Mode of Teaching	Synchronous	
Meeting Time	Wednesdays 14:00 p.m18:00 p.m. Week 6-9	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	Students majoring in computer, artificial intelligence, information and other related majors. Prerequisite courses include Python, artificial intelligence, machine learning and other professional basic courses.	
Course Description	The course introduces the basic theories of artificial intelligence and deep learning, describes the deep learning models and algorithms commonly used in the fields of image classification and natural language processing, as well as the open source framework for AI development, and makes students familiar with and master AI development based on MindSpore open source framework through case practice.	
Syllabus	<u>English</u> *Please open the link in Firefox or Google Chrome Browser.	
Course Introduction Video	<u>English</u>	
This course is availa	This course is available on <u>APRU-VSE platform</u> .	



# **Course 10: Multiphase Flow and Heat Transfer (Grad)**

PO6011 Multiphase Flow and Heat Transfer		
Number of Credits	3	
Teaching Hours	48	
Offering School	School of Mechanical Engineering	
Course Teacher	<u>Po Hu</u>	
Course Level	Postgraduate Level	
Language of Instruction	English	
First Day of Class	18 Feb 2022	
Last Day of Class	3 Jun 2022	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	Fridays, 12:55 p.m15:40 p.m. Week 1-16 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	Heat transfer, fluid dynamics, advanced mathematics; Open to students in all engineering majors	
Course Description	Multiphase flow exists widely in industries and everyday life, such as thermal energy and power engineering, nuclear engineering, chemical engineering and power machinery engineering. The research on multiphase flow has been carried out in various fields using analytic and experimental methods. Many of them are still on-going research topics. The current course covers major ideas, models, analytic methods and frontier topics in multiphase flow.	
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.	
Course Introduction Video	Link	



# **Course 11: Food Quality and Safety Detection**

## Technology (Grad)

FOST8011 Food Quality and Safety Detection Technology		
Number of Credits	2	
Teaching Hours	32	
Offering School	College of Agriculture and Biology	
Course Teacher	Chunlei Shi & Weiying Lu	
Course Level	Postgraduate Level	
Language of Instruction	English	
First Day of Class	17 Feb 2022	
Last Day of Class	28 Apr 2022	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	Thursdays, 18:00 p.m20:20 p.m. Week 1-11 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	Prerequisites: Food Microbiology, Food Chemistry	
Course Description	The objective of this course is to teach students how to write a paper, an abstract in English for publication in a scientific journal and to teach students the oral presentation and poster presentation skills needed to present their results at international scientific conferences. Moreover, the students will learn how to communicate with editors and reviewers of the journals. The course includes both lectures and tutorials with a number of in-class writing exercises and discussion of good and not- so-good writing practices. The tutor will particularly emphasize graphical organization, drafting and finalizing research publication figures and posters. The course will finish with an in-class poster presentation with oral discussion. Students who complete this course will learn what to do to get	



	their research published and how best to present their work at a scientific conference.
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.
Course Introduction Video	Link



# **Course 12: Scientific Writing and Presentation**

### (UG/Grad)

GE7001-080-M03 Scientific Writing and Presentation		
Number of Credits	2	
Teaching Hours	32	
Offering School	School of Life Sciences and Biotechnology	
Course Teacher	Ilya A. Vinnikov	
Course Level	Postgraduate Level	
Language of Instruction	English	
First Day of Class	16 Feb 2022	
Last Day of Class	1 June 2022	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	Wednesdays, 10:00 a.m11:40 a.m. Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	No restrictions. The course might be equally useful for undergraduates.	
Course Description	The objective of this course is to teach students how to write a paper, an abstract in English for publication in a scientific journal and to teach students the oral presentation and poster presentation skills needed to present their results at international scientific conferences. Moreover, the students will learn how to communicate with editors and reviewers of the journals. The course includes both lectures and tutorials with a number of in-class writing exercises and discussion of good and not-so-good writing practices. The tutor will particularly emphasize graphical organization, drafting and finalizing research publication figures and posters. The course will finish with an in-class poster presentation with oral discussion. Students who complete this course will learn what to do to get their research	



	published and how best to present their work at a scientific conference.
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.
Course Introduction Video	Link



# Course 13: Bank Management (UG/Grad)

ECON3513 Bank Management		
Number of Credits	2	
Teaching Hours	32	
Offering School	Antai College of Economics and Management	
Course Teacher	Nan Li Link 1 & Link 2	
Course Level	Undergraduate Level	
Language of Instruction	English	
First Day of Class	17 Feb 2022	
Last Day of Class	2 Jun 2022	
Course Component	Lecture + Discussion	
Mode of Teaching	Synchronous	
Meeting Time	Thursdays 18:00 p.m 20:40 p.m. Week 1-16 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	3-4 year Students major in economics, finance, management. Students in other majors with solid background in mathematics, basic economics can apply with consent of lecture.	
Course Website	English	
Course Description	This course builds on basic finance theory and economic principles to address topics that are important for managing financial institutions in a rapidly changing international environment. The students are expected to learn not only the theoretical framework to analyze the financial system, risk management and financial crisis, but also to learn how to apply tools and methods leant in this course to solve problems faced by the banks in the real economy. This course consists of following topics: Specialness, Risks and Regulations of Financial Institutions; Organization, Structure, Changing Dynamics of Banking Industry and Performance Evaluation of Commercial Banks; Liquidity Risk and Monetary Policy; Interest Rate Risk and Market Risk; Credit Risk	
Syllabus	English	



Course Introduction Video	Coming soon
This course is available on <u>APRU-VSE platform</u> .	



# Course 14: The Law of the Sea and China's Practice (UG/Grad)

LAW6724 The Law of the Sea and China's Practice		
Number of Credits	1	
Teaching Hours	16	
Offering School	Koguan School of Law	
Course Teacher	Dan Liu	
Course Level	Postgraduate Level	
Language of Instruction	English	
First Day of Class	15 Feb 2022	
Last Day of Class	22 March 2022	
Course Component	Lecture	
Mode of Teaching	Synchronous	
Meeting Time	Tuesdays, 18:00 p.m20:20 p.m. Week 1-6 Course recordings available for students.	
Time Zone	Beijing Time (UTC+8)	
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	No restrictions. The course might be equally useful for undergraduates.	
Course Description	This course will cover the basic theoretical knowledge of the law of the sea, such as international fundamentals and the law of the sea, the three United Nations conferences on the law of the sea, the island system, the maritime "zoning" system, territorial disputes and maritime delimitation, the system of conservation of marine living resources, marine environmental protection, the peaceful settlement of maritime disputes, and the practice of China's law of the sea. Based on the introduction of the basic theoretical knowledge of the law of the sea, students are given academic training, especially how to use the basic theory of the law of the sea and the United Nations Convention on the Law of the Sea to analyze in depth and express their personal views in relation to the popular and difficult issues of the sea.	



#### Jiao∘Tong Global Virtual Classroom

	Students are guided to analyze classic law of the sea cases of international judicial bodies and training in writing essays on law of the sea topics.
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.
Course Introduction Video	Link



### **Course 15: Contract Law and Financial Markets**

### (UG/Grad)

LAW6459 Contract Law and Financial Markets	
Number of Credits	2
Teaching Hours	32
Offering School	Koguan School of Law
Course Teacher	Wei Shen
Course Level	Postgraduate Level
Language of Instruction	English
First Day of Class	17 Feb 2022
Last Day of Class	28 Apr 2022
Course Component	Lecture
Mode of Teaching	Synchronous
Meeting Time	Thursdays, 18:00 p.m20:20 p.m. Week 1-11 Course recordings available for students.
Time Zone	Beijing Time (UTC+8)
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	No restrictions.
Course Description	This is an intensive course focusing on a comparative analysis of business systems across the world, particularly those in Hong Kong, the mainland China and the US. We will discuss the basic question: how does law matter to business practice? To answer this question, we need to take into consideration two complementarities. First, the legal system in a given jurisdiction consists of a variety of legal subject areas, including corporate law, securities regulation, labor law, bankruptcy law, and tax law, among others. These areas of law do not operate in isolation but rather in complement to affect the business practices in a country. Second, the law operates in conjunction with economic markets and social norms.



	With this in mind, I propose the following framework: consider the company as a forum for incentive bargaining among four major participants: management, employees, creditors, and shareholders. How do the complementary effects of various laws, markets and norms affect the incentives of each participant? How has this affected the accepted business practices in a country, and in turn, the broader business system?
	On each of the following topics, students will be exposed to classical readings in business law theory, as well as more recent scholarship that applies those classical theories to case studies of modern US and Asian firms. Through the readings and participation in class discussions, my hope is that students will learn to think critically about the dynamic interplay of legal systems, economic markets, and social norms and their combined effects on business systems. Certainly, as the course title suggests, one of the key components in this course is shareholder protection and shareholder remedies.
	Just a reminder, please do not take it for granted that this is a practice or training course. Put the other way, this is a core course on corporate law and corporate governance theories.
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.
Course Introduction Video	Coming soon



# Course 16: China's Social Welfare Policies & Practices

## (UG/Grad)

PUM8303 China's Social Welfare Policies & Practices	
Number of Credits	3
Teaching Hours	48
Offering School	School of International & Public Affairs
Course Teacher	Fan Yang
Course Level	Postgraduate Level
Language of Instruction	English
First Day of Class	17 Feb 2022
Last Day of Class	2 June 2022
Course Component	Lecture
Mode of Teaching	Synchronous
Meeting Time	Thursdays, 18:00 p.m20:20 p.m. Course recordings available for students.
Time Zone	Beijing Time (UTC+8)
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	No restrictions.
Course Description	Social welfare policies and practices is a mirror of the relationship between state and people. China's social welfare policies have witnessed vast changes in the past more than half a century, and a course in introducing the dynamic process and revealing the internal logic therein will provide a desirable angle for foreign students to understand China, as well as foster their critical thinking as with the existing frameworks in analyzing Chinese society and policy process. This course is divided into two major sections, namely 1) the welfare policy introduction and analysis and 2) the welfare policy implementation mechanism analysis. The welfare policies covered include: pension, medical insurance, social assistance,



	housing, and migrant children welfare. Four guest speakers will
	be invited to talk about related topics, including doctor-patient
	NGOs and migrant children welfare.
Syllabus	English
	*Please open the link in Firefox or Google Chrome Browser.
Course	Link
Introduction Video	



# Course 17: Elementary Chinese 1 (UG/Grad)

CHN0902-1 Elementary Chinese 1	
Number of Credits	4
Teaching Hours	64
Offering School	School of Humanities
Course Teacher	Jun Wang
Course Level	Undergraduate Level
Language of Instruction	English
First Day of Class	14 Feb 2022
Last Day of Class	3 Jun 2022
Course Component	Lecture
Mode of Teaching	Synchronous/Asynchronous
Meeting Time	Mondays 16:00 p.m17:40 p.m. & Fridays 16:00 p.m17:40 p.m. Course recordings available for students.
Time Zone	Beijing Time (UTC+8)
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	This is a beginners' course. If you have learned Mandarin Chinese before, please contact the instructor (wjchs@sjtu.edu.cn) for suggestion.
Course Website	English *Please open the link in Google Chrome Browser.
Course Description	This course is to build a preliminary foundation in spoken Chinese for the students within limited time and enable them to communicate in the target language for some basic functions. 250 most frequently used Chinese characters will also be taught. Meanwhile passing HSK 2 is an optional target. This course is also helpful to those who want to study Chinese language in depth in the future. No prerequisite is required. By completing this course, students will have a vocabulary size of 500 words and reach the proficiency level of HSK 2, and be able to communicate with Chinese people fluently in most topics.



#### Jiao Tong Global Virtual Classroom

	The course has the full support of a MOOC
	(https://www.coursera.org/specializations/learn-mandarin), and
	can be delivered in the "flipped classroom" mode, which is
	efficient for both face-to-face and distant learning. The MOOC has
	been certified as a "national high-quality undergraduate course"
	by the Ministry of Education of China.
Syllabus	English
	*Please open the link in Firefox or Google Chrome Browser.
Course	T :_1_ 1
Introduction	
Video	Link 2
This course is available on <u>APRU-VSE platform</u> .	



# **Course 18: Two Thousand Years of Sino-foreign**

### Cultural Exchanges (UG/Grad)

CL025 Two Thousand Years of Sino-foreign Cultural Exchanges	
Number of Credits	2
Teaching Hours	32
Offering School	School of Humanities
Course Teacher	Zhaoyang Zhang
Course Level	Undergraduate Level
Language of Instruction	English
First Day of Class	15 Feb 2022
Last Day of Class	31 May 2022
Course Component	Lecture
Mode of Teaching	Synchronous
Meeting Time	Tuesdays, 16:00 p.m17:40 p.m. Week 1-16 Course recordings available for students.
Time Zone	Beijing Time (UTC+8)
Course-specific Restrictions (e.g. Prerequisites / Major / Year of Study)	No restrictions.
Course Description	This course investigates cultural exchanges between China and the world during the past two thousand years. It will cover various topics, including the Silk Road trades, Maritime Silkroad, the receptions of Buddhism, Christianity and Islam by China, the spread of Chinese inventions to the Old World, Admiral Zheng He's voyages from China to Africa during the 15th century, and etc. This Course aims to improve cross-cultural understandings. It will demonstrate that even though pre-modern China was geographically isolated from the rest of Eurasia by mountains, deserts, and oceans, Chinese civilization managed to engage in



	important cultural exchanges with other major civilizations via land and ocean routes, and that had significant impacts both to the development of China and the world.
Syllabus	English *Please open the link in Firefox or Google Chrome Browser.
Course Introduction Video	Link
This course is available on <u>APRU-VSE platform</u> .	