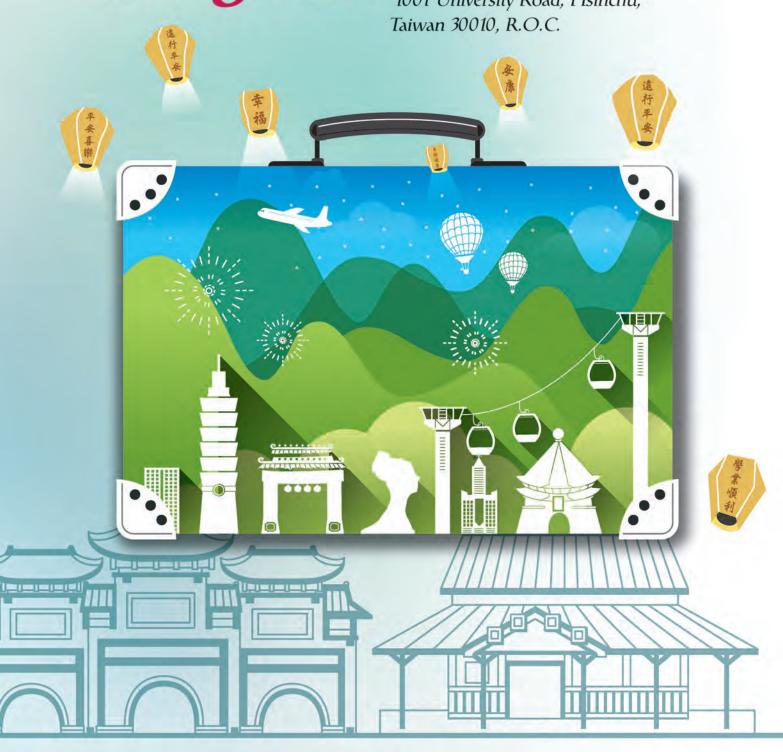


Summer Program

Office of International Affairs, National Chiao Tung University 1001 University Road, Hsinchu,





## 2016 Summer Program

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#### **About NCTU**

- Started as Nanyang College in Shanghai in 1896
- Re-established as NCTU in 1958 in Hsinchu, Taiwan, focusing on Electrical & Computer Engineering
- Situated in Hsinchu, the "Silicon Valley" of Taiwan
- Strong Academic-Industrial Collaboration
- Two-thirds of the CEOs & general managers in the Hsinchu Science Park are NCTU alumni
- QS World University Rankings, 2015/16: #182
  - 51-100<sup>th</sup> in Engineering-Electrical & Electronic
  - · 51-100<sup>th</sup> in Mechanical, Aeronautical& Manufacturing
  - · 51-100<sup>th</sup> in Material Science
  - · 101-150<sup>th</sup> in Computer Science & Information System
  - · 101-150<sup>th</sup> in Engineering-Chemical
- QS Asian University Rankings, 2015/16: #31
- Academic Ranking of World Universities by Shanghai Jiao Tong University, 2014
  - · 51-75<sup>th</sup> worldwide in Computer Science
  - 51-75<sup>th</sup> worldwide in Engineering
- ESI Publications in Computer Science: NCTU Ranked No. 1 in Taiwan and No. 20 in the world
- 10 Departments/Institutes accredited by Institute of Engineering Education Taiwan (IEET)
- Best engineering program in Taiwan
- College of Management accredited by AACSB
- 5<sup>th</sup> best MBA program in Asia (Asia Inc.)

## **Program Introduction**

NCTU will host a 4-week intensive summer program in 2016. It starts from July 6, 2016 to August 5, 2016. There are four modules in the program: Basic Professional Courses, Mandarin Courses, Management Courses and Culture Courses. Each module has either 2 credits (36 hours) courses or 1 credit (18 hours) courses. All credits are transferable among partner universities. After completion, NCTU will issue certificates for attendees. The Basic Professional Courses are covered in the fields of Electrical Engineering, Computer Science, and Engineering respectively. A special designed Mandarin Course will be offered at 3 different levels. The Management Courses provide students of the knowledge of business management. The Culture Courses will be focused on Cyber Community and Chinese culture.

In addition, NCTU will arrange a 3-day culture trip to Hualien. Students will explore the beauty and the hospitality of Taiwan. It is an excellent opportunity for students to experience different cultures and the nature of Taiwan.

For further information, please refer to the website at www.ia.nctu.edu.tw and seeking for "2016 NCTU Summer Program". Students can also contact the program coordinator, Ms. Avis Liu, either via phone or email.

#### **Course Schedule**

Time	Monday		Tuesday	Wednesday
	Digital Circuit Design			
	The Competitiveness of Asian Enterprises from the Aspect of Innovation and Entreprises			f Innovation and Entrepreneurship
	Mandarin Courses			
09:00 ~ 12:00	Introduction to Linguistics			
	Cyber Community and Culture			
	Introduction to Communications Technology			
	Convex Optimization			
	Computer Organization			
	Music of Taiwan- Culture and Practice  Language and Mind  Introduction to Engineering Mechanics			
13:30 ~ 16:30				
13.30 ~ 10.30				
	Information and Communication Technology Policies in Everyday Life  Design Thinking			licies in Everyday Life
1credit/ 18 hours/	/2 weeks 7/11~7/20	1credit/18	hours/2 weeks 7/25~8/3	2 credits/36 hours/ 4 weeks 7/11~8/3

## **Fees for Partner Universities**

Desis Dusfessional Courses	
Basic Professional Courses	
1 credit course	NTD 2,400
2 credits course	NTD 4,800
Mandarin Courses	NTD 4,800
Management Courses	NTD 4,800
Culture Courses	
1 credit course	NTD 2,400
2 credits course	NTD 4,800
Miscellaneous	NTD 9,000
Accommodation	
NCTU Dorm on Campus	NTD 6,000
NSRRC Guest House	NTD 17,000
Culture Trip to Hualien (optional)	NTD 6,500
Culture Trip to Hualien (optional)	NTD 6,500

#### Note:

- Course fees are triple as listed above for students of non-partner universities.
- 2. New Taiwan Dollar (NTD) Currency is required as the payment
- 3. All the fees are not refundable

## **Bank Information**

Please kindly scan the bank receipt and email it to Ms. Avis Liu after wiring the fee. Students who fail to make the payments by April 27, 2016 will not be accepted.

- Bank Name: E. Sun Commercial Bank, Ltd., Hsinchu Branch
- Bank Address: No.34, Minzu Rd., Hsinchu City 300-43, Taiwan (R.O.C.)
- Bank Telephone No.: +886-3-523-1313
- Bank Fax No.: +886-3-526-2951
- Swift Code: ESUNTWTP
- Beneficiary: National Chiao Tung University
- BENF A/C No: 0060-466-138899

# Program Coordinator: Avis Liu Email: avisliu@nctu.edu.tw Tel: +886-3-571-2121 ext 50661 Fax: +886-3-573-1716

#### Note:

- 1. If participants apply for dropping the program, the payment will not be refunded.
- 2. Wiring fee will not be included in the payments; the charge needs to be paid by individual student.



## **Modules Descriptions**

#### 1. Basic Professional Courses

In this module, there are five basic professional courses offered by the following Colleges. Students can select one of the courses listed as below. The class will be scheduled on every Monday, Tuesday, and Wednesday.

Basic Professional Courses		
College	Course Name	
College of Electrical & Computer Engineering	Introduction to Communications Technology	
	Convex Optimization	
Callage of Computer Colones	Computer Organization	
College of Computer Science	Digital Circuit Design	
College of Engineering	Introduction to Engineering Mechanics	
College of Engineering	Design Thinking	

#### Introduction to Communications Technology

· Credit: 1

· Instruction Hours: 18

Instruction Time: 09:00 ~ 12:00
Course Duration: 7/11 ~ 7/20

This course intends to provide a fast and easy-to-understand overview of the vast engineering field that is known as communications. The class presentation will be tuned toward general audience that may not have sufficient backgrounds in engineering. However, I do expect that the students have some knowledge of college-level math and physics. The goal is to help students establish fundamental concepts and build intuitive understanding of more advanced topics.



#### Learning Objective:

Understand following concepts:

- 1. The role of communications in modern society
- 2. Information
- 3. Signals
- 4. Systems
- 5. Communication Systems
- 6. Communication Networks
- 7. Internet of Things

#### Course Requirement & Grading:

- 1. Three essay assignments (90%)
- 2. Class participation (10%)
- 3. Bonus points (<10%): technical projects based with MATLAB simulations

#### Convex Optimization

· Credit: 1

· Instruction Hours: 18

Instruction Time: 09:00 ~ 12:00
Course Duration: 7/25 ~ 8/3

The course covers following areas: Affine and convex sets; Generalized inequalities; Separating and supporting hyperplanes; Dual cones and generalized inequalities; Convex functions: properties and examples; Operations that preserve convexity; The conjugate function; Quasiconvex functions; Log-concave and log-convex functions; Optimization problems; Convex optimization Linear optimization problems; Quadratic optimization problems; Geometric programming; Generalized inequality constraints; Vector optimization; Duality; The Lagrange dual function; The Lagrange dual problem; Optimality conditions

#### Learning Objective:

Acquire the fundamental theory and practice of convex optimization.

#### Course Requirement & Grading:

Good knowledge of linear algebra. Some knowledge of probability and numerical computing.

- · Homework 20%
- · Final exam 80%
- · These weights are approximate; we reserve the right to change them later.

#### Computer Organization

· Credit: 2

· Instruction Hours: 36

Instruction Time: 13:30 ~ 16:30
Course Duration: 7/11 ~ 8/3





This course is aimed at introducing the ways a general-purpose digital computer can be organized. Issues to be discussed include how to set design goals, how to organize the various components to achieve these goals, how to evaluate the designs, and in the meantime know what possible design alternatives there can be. The most important is that you can learn the fundamentals of how a digital system works and the principles that you should base on in your design. (To take this course, it will help if you have some digital logic design background.)

#### **Learning Objective:**

- 1. Computer Abstractions and Technology
- 2. Instructions: Language of the Computer
- 3. Arithmetic for Computers
- 4. The Processor: Datapath and Control
- 5. Large and Fast: Exploiting Memory Hierarchy

#### Course Requirement & Grading:

- 1. Two examinations, each covering one half of the course contents and intended to be given at the end of 1/2 and 2/2 of the semester
- 2. Grading policy:
  - · Quizzes: 20%
  - · Examinations: 80% (Above are just suggestions; to be finalized with the class)

#### • Digital Circuit Design

· Credit: 2

· Instruction Hours: 36

Instruction Time: 09:00 ~ 12:00
Course Duration: 7/11 ~ 8/3

This course is aimed at introducing the fundamental concepts and the basic tools used in the logic design of digital systems such as a digital electronic computer

#### Learning Objective:

- 1. Digital Systems and Binary Numbers
- 2. Boolean Algebra and Logic Gates
- 3. Gate-Level Minimization
- 4. Combinational Logic
- 5. Synchronous Sequential Logic
- 6. Registers and Counters

#### Course Requirement & Grading:

1. Two examinations, each covering one half of the course contents and intended to be given at the end of 1/2 and 2/2 of the semester



#### 2. Grading policy:

· Quizzes: 20%

Examinations: 80%

(Above are just suggestions; to be finalized with the class)

#### Introduction to Engineering Mechanics

· Credit: 1

· Instruction Hours: 18

Instruction Time: 13:30 ~ 16:30Course Duration: 7/11 ~ 7/20



Based on the knowledge of applied mechanics, mechanics of materials, and theory of structures, this course first introduces the basic engineering mechanics and then extends the scope to selected topics in theory of structures. Various methods will be taught to analyze specific problems to help students understand that there are different approaches in solving engineering problems.

#### Learning Objective:

Through the study of mechanics problems, students will be equipped with ability to analyze related problems in mechanics and engineering.

The topics are listed as follows:

- 1. Introduction to engineering mechanics
- 2. Structural analysis
- 3. Direct approach

#### Course Requirement & Grading:

1. Prerequisites: Calculus and general physics

2. Grading policy:

· Grading:

· Homework: 50%

· Attitude & attendance: 50%

#### Design Thinking

· Credit: 1

· Instruction Hours: 18

Instruction Time: 13:30 ~ 16:30
Course Duration: 7/25 ~ 8/3



This course is an introduction to the design thinking process. Students will learn with partners to perform the empathizing, identifying, ideation, prototyping and testing process.

#### **Learning Objective:**

This is a project-based course. Students will collaborate with team members and engage with minds, eyes and hands to generate creative design.



#### Course Requirement & Grading:

- · Class participation and engagements 50%
- · Team project 50%

#### 2. Mandarin Courses

- Introductory Everyday Chinese I
  - · Credit: 2
  - · Instruction Hours: 36

Instruction Time: 09:00 ~ 12:00
Course Duration: 7/11 ~ 8/3



#### 《Far East Everyday Chinese》 Book 1 Lessons 1~3

- 1. To read and write with the Pinyin Romanization system.
- 2. To learn more than 150 Traditional Chinese characters, phrases and grammar structures.
- 3. To be familiar with the Chinese numbering system; to apply the content taught in class to hold simple daily conversations, such as exchanging telephone numbers and shopping.

#### Learning Objective:

Whenever new materials are to be introduced in class, there will be a vocabulary quiz at the beginning of class. There will be no make-up quizzes, so be there on time.

This course will be aimed at these two following objects:

- 1. To enable you to communicate (listen, speak, read, write) accurately and appropriately in simple Chinese for common everyday purposes.
- 2. To lay a good foundation for you by helping you to speak Chinese with correct pronunciation and intonation and to know the structures of Chinese characters, the stroke order and basic radicals.

#### Course Requirement & Grading:

- · Homework 25%
- · Quizzes 10%
- · Tests 15%
- · Preparation & participantion 25%
- · Final exam(written) 15%
- · Final exam(oral) 10%

#### • Intermediate Practical Chinese Conversation

· Credit: 2

· Instruction Hours: 36

Instruction Time: 09:00 ~ 12:00
Course Duration: 7/11 ~ 8/3



This is a Chinese conversation course meeting the needs and interests of intermediate level students and

## Multiple Culture, Different Experience

above. The course is designed to encourage active learning through group discussion, with an emphasis on development of their scope of learning.

The course consists of various topics to facilitate learning of practical vocabulary in different fields. Through a deeper understanding of Chinese thought and culture, the course is particularly beneficial for international students who wish to attain native Chinese oral skills and consolidate their Chinese communicative competence.

#### Learning Objective:

The lessons are based on sharing ideas, group discussions, and question and answer sessions. They are conducted as follows:

- 1. Students will choose the topic and discussion leader before the class.
- 2. The assigned student will be responsible for:
  - · Preparing information for the topic and/or presenting their personal opinion.
  - · Posing questions and leading the discussion.
  - Each discussion leader will be expected to speak for 5-10 minutes.

#### Course Requirement & Grading:

Students need to well prepare before the class in order to achieve the best learning result.

1. Class participation 40%

Grading policy:

- 2. Assignments and tests 20%
- 3. Discussion leading 20%
- 4. Final oral presentation 20%
- Advanced Chinese: Cultural Taiwan

· Credit: 2

· Instruction Hours: 36

· Instruction Time: 09:00 ~ 12:00

• Course Duration:  $7/11 \sim 8/3$ 





By playing films and talking about the news, strengthen and enhance all aspects of the students' language skills. Students will have a better understanding by learning from different aspects of Taiwan's society and culture.

#### Learning Objective:

This course will be aimed at these two following objects:

- 1. From the contents of films, students will have a deeper insight of the culture.
- 2. Articles of various topics including national and international issues in Taiwanese newspapers are introduced and explained in Chinese. Students are strongly encouraged to read the selected articles and express their own opinions by using what they learn during the class.





#### Course Requirement & Grading:

Preparation and Participation 50% Assignments 30% Final oral presentation 20%

#### 3. Management Course

 The Competitiveness of Asian Enterprises from the Aspect of Innovation and Entrepreneurship

· Credit: 2

· Instruction Hours: 36

Instruction Time: 09:00 ~ 12:00
Course Duration: 7/11 ~ 8/3



The world's economic centre of gravity is continuously shifting east, and it will be in Asia probably in 2025, given the speeding-up pace. In line with the theme on Asian enterprises' competiveness, this course consists of a series of lectures for basic concepts and principles, case discussions of Asian companies, and field trips with real-world experiences. In particular, the issue of enterprise competiveness is addressed from the aspect of innovation and entrepreneurship, which play a much more crucial role in shaping

today's world economy. The course is concluded by the group project to present a conceptual business plan of a product/service. The specific topics covered in the course include the followings.

- · Innovation Management in the Emerging Economies
- The Entrepreneurial Process, from Concept to Model and Market.
- · Legal Issues and Intellectual Property for Start-ups
- · Customer Value Creation and Demand Chain Management
- · From Copycats to Global Leaders the Cases of Korean Companies
- · Business Ethics, Social Responsibility and their Impacts on Business Competitiveness

#### Learning Objective:

- 1. Provide the business major students with advanced knowledge and diversified perspectives for a specialized management topic with rising importance, the Asian enterprise Competitiveness.
- 2. Motivate the non-business major students to explore the area of management and to pursuit the opportunity for innovation and entrepreneurship based on their specialty.

#### Course Requirement & Grading:

- 1. 60% Class Participation
- 2. 40% Group Project Presentation

#### 4. Humanities and Culture Courses

Humanities and Culture Courses		
College	Course Name	
	Cyber Community and Culture	
College of Hakka Studies	Information and Communication Technology Policies in Everyday Life	
College of Llumonities and Cosial Caionasa	Introduction to Linguistics	
College of Humanities and Social Sciences	Language and Mind	
Center for General Education	Music of Taiwan- Culture and Practice	

#### Cyber Community and Culture

· Credit: 1

· Instruction Hours: 18

Instruction Time: 09:00 ~ 12:00
Course Duration: 7/11 ~ 7/20

This course is designed to provide students with an overview of online communities and culture, including the social impacts of the Internet, and the social and cultural aspects of online behaviors and communities. The study of online communities and culture is by nature multidisciplinary; researchers from communication/media and information studies, sociology, psychology, information systems/technology, and other disciplines all study the Internet. However, we will pay particular attention to the social and cultural aspects of online communities. We will focus on the Internet in the social contexts, by studying the development and features of online communities, Internet adoption, digital divide, social construction of online communities, online communication, how larger scale social institutions affect the use and the impacts of the Internet, and the ways that the Internet is used and the online culture is developed.

#### Learning Objective:

At the end of this course, students should be able to:

- Describe the main types, history, and uses of online communities among different social groups and in general.
- · Understand the different aspects and effects of online communities and online culture, and the digital divide.
- · Be able to describe the different types of social impacts of the Internet on society and critically assess the latest research in this area.
- · Better understand the impacts of the Internet on their daily lives.

#### Course Requirement & Grading:

- 1. Attendance & Class Participation: 40%
- 2. Internet Use Diary: 20%
- 3. Project: Evolution and Impacts of Online Communities and Culture: 40%





Information and Communication Technology Policies in Everyday Life

· Credit: 1

· Instruction Hours: 18

Instruction Time: 13:30 ~ 16:30
Course Duration: 7/11 ~ 7/20

Information and Communication Technology (ICT) industries contribute vitally important services for all other sectors of the economy. Without the internet and communications, finance, transportation, health care, energy supply, retailing, and many other services would be severely impeded. Moreover, ICT industries are among the most dynamic high-tech sectors of the economy in many countries, including Taiwan. Given their importance, many aspects of ICT industries are subject to public policies intended to help realize their benefits to the economy and society. Technology, business strategy, and public policy are therefore closely intertwined; one cannot fully understand one without the other.

In this course, we will focus on the economics, the organization, and the business challenges faced by firms in these industries, including voice and data services, Internet access, entertainment, search, and apps. We will also address how the basic economics and business conditions of these activities are affected by public policy and how influential players in these industries attempt to change public policy to gain competitive advantages. Specifically, we will discuss some cases in Taiwan to help students familiar themselves with the ICT policy debates in Taiwan. ICT industries have rather unique economic characteristics that make them particularly interesting to study but also challenging to manage: high fixed and low incremental costs; products and services that can be copied easily and therefore reused many times; strong interdependencies among users and hence network effects; the need to coordinate increasingly complex value chains and networks; users who increasingly produce and contribute themselves ("prosumers"); and recurring concerns about privacy and security.

#### Learning Objective:

At the end of the semester, students should:

- · Have a comprehensive knowledge of the organization of ICT industries
- · Understand the basic economic structure of these industries and how they relate to management challenges
- · Have a clear picture of the interaction of technology, economics/business strategy, and public policy
- · Be familiar with the basic and important ICT policies
- · Acquire a good understanding of the market environment to which your career will take you
- · Be familiar with cases of firms that succeeded and others that failed in meeting the unique challenges of ICT industries

#### Course Requirement & Grading:

Students' grades will be determined based on the following weights:

Component	Points	Percent of grade
Participation	40	40%
Proposal for the case study	15	15%
Presentation	15	15%
Final Paper (Case Study)	30	30%

#### • Introduction to Linguistics

· Credit: 2

· Instruction Hours: 36

Instruction Time: 09:00 ~ 12:00
Course Duration: 7/11 ~ 8/3

You will draw from this course a broad understanding of human language: what it is, what it is used for and how it works. This course will introduce you to basic concepts and procedures that are part of contemporary Linguistics. Its goals include introducing you to major fields of specialty such as phonetics, phonology, morphology, syntax, historical linguistics and language acquisition. Students are required to propose pre-class questions based on assigned reading each week. There will also be a poster presentation at the end of the term. There is no prerequisite for this class.

#### Learning Objective:

You will acquire skills and techniques for learning how particular languages work and behave; you will also get some practice in using them to discover the organizing principles of language. You will become aware of the diversities and similarities of language systems. This course will acquaint you with the basic concepts necessary to further pursue linguistic studies, if you wish to.

#### Course Requirement & Grading:

- · Pre-class questions 10%
- · Assignment and quiz 10%
- · Poster presentation 20 %
- · Exams (2) 60%

#### Language and Mind

· Credit: 2

· Instruction Hours: 36

Instruction Time: 13:30 ~ 16:30
Course Duration: 7/11 ~ 8/3

This class focuses on the effect of language on human mind. We will start with a brief introduction of major sub-disciplines of linguistics and move on to discuss the following questions: How does language affect thought processes? How do we process language? Are certain brain areas specialized for language? How does our first and second languages interact with each other and thus affect our brain? Students are required to propose pre-class questions based on assigned reading each week. There will also be a poster presentation at the end of the term.

No previous knowledge of linguistics is required.

#### Learning Objective:

- · You will study theories regarding human language processing.
- · You will be acquainted with techniques for psycholinguistics and Neurolinguistic.
- · You will become aware of effect of first and second language to human brain.





#### Course Requirement & Grading:

- · Pre-class questions 10%
- · Assignment and quiz 10%
- · Poster presentation 20 %
- · Exams (2) 60%

#### Music of Taiwan - Culture and Practice

· Credit: 2

· Instruction Hours: 36

Instruction Time: 13:30 ~ 16:30
Course Duration: 7/11 ~ 8/3

This course aims to introduce music of Taiwan in terms of musical practice and its cultural context, and in further, to inspire students to see music as culture, not only as a way of affectional expression or recreational activities.

This course introduces music of Taiwan, including: (1) music at present, such as pop singer Jay Chou's works, the National Symphony Orchestra's classical music performances etc; (2) music in history, such as Taiwanese folk songs around 1940-50, aboriginal music etc; (3) music mixed with historical materials and new elements, such as jazz or symphonic arrangements of Taiwanese folk songs etc.



#### Learning Objective:

- 1. Students will learn from audio-video materials, lectures and articles assigned.
- 2. A field work/field trip will be arranged to provide students an opportunity experiencing through observation and participation a selected live music performance or rehearsal in Taipei.
- 3. A group presentation will be required to show students' observation and understanding on the music and its cultural context of a selected musician, musical group or musical genres.

#### Course Requirement & Grading:

- 1. 40% Field trip/work report
- 2. 40% Final group oral presentation with ppt
- 3. 20% Attendance and Participation

## How to apply the Program

#### Registration via email

Step 1 Please download the application form (2016 Summer Program Application Form) at our website <a href="https://www.ia.nctu.edu.tw">www.ia.nctu.edu.tw</a>

Step 2 Fill out the application form and email it to Ms. Avis (avisliu@nctu.edu.tw)

Step 3 Additional materials need to email to Ms. Avis (avisliu@nctu.edu.tw); the materials are mandatory:

- $\bullet$  ID photo in JPG file format (236 imes 301 pixels) including your full name by April 10, 2016
- The scanned bank receipt by April 27, 2016
- Flight schedule by June 1, 2016

#### Note:

NCTU will issue an admission letter after received the payments Students have NOT received the letter by May 6, 2016; please contact Ms. Avis Liu via email.

## **Accommodation**

Students who participate in 2016 NCTU Summer Program can stay either in National Synchrotron Radiation Research Center (NSRRS) Guest House or NCTU dorms.

#### **NSRRS** Guest House II

#### Introduction:

Located in the Hsinchu Science Park, nearby National Chiao Tung University and National Tsing Hua University, NSRRC guest house is a 4 story building with an area of 9,472 square meters. Travelers can enjoy their stay at the guest house with a safe and cozy environment.

#### **Facility:**

- A. Public facilities
  - · Public telephone
  - · Water fountain with ice / warm / hot water
  - · Laundry room: washer / dryer
  - · Dinning hall: Microwave and toaster provided
- B. Room facilities
  - · Air conditioning
  - · Thermos bottle
  - Hair dryer
  - · Mini refrigerator
  - · Toiletries
  - Television
  - · Wireless Internet access





#### **NCTU Dorms**

#### Introduction:

The dorms located on Kuang Fu campus, all rooms are 4-bed room. Students can use their student ID card to access the entrances of the dorms. There are four convenient stores available 24x7.

- A. Public facilities
  - · Public telephone
  - · Water fountain with ice / warm / hot water
  - · Laundry room: coin washer / dryer
  - Lounge
- B. Room facilities
  - · Air conditioning: students can buy the AC card at the 7-11 convenient store on campus
  - Table
  - · Closet
  - Internet

	NSRRS Guest House II	NCTU Dorms
Price	NTD 17,000	NTD 6,000
Room Type	2-bed room	4-bed room
Room Cleaning Services	Provided	Not provided
Breakfast	Provided	Not provided
Location	Hsinchu Science Park	NCTU Kuang Fu Campus

## Trip to Yilan & Hualian

A 3-day trip for summer program participants will be arranged. The trip is optional. The tour fee is NTD 6,500; meals are included.

#### Day 1

A bus will take the participants to the Su'aoxin train station and head to Hualian. Students can experience the beauty of nature in Taiwan. The tour guide will lead students to visit Taroko National Park, such as Tianxiang and Yanzikou (Swallow Grotto).



Tianxiang



Yanzikou (Swallow Grotto)

#### Day 2

There are many famous tourist attractions in Hualien. Participants have the opportunity to visit Liyutan Reservoir and Qixingtan Scenic Area. Liyutan Reservoir is the largest inland lake in Hualien. Various water activities and







Liyutan Reservoir

recreational facilities are available. Liyu Mountain has many forest footpaths which allow hikers to enjoy the birds, flowers, and scenery, making it one of the best exercise choices. Qixingtan Scenic Area has been well known for abundant natural beauties, multiple scenic trails, and Star-Gazing Square.

Located on the northeast beach of Xincheng Town, Qixingtan is the only county level scenic area in Hualien. Along the crescent bay and clear blue waters of the Pacific Ocean, the beach is full of colorful agates that are easily found and appreciated. Abundant natural beauty, multiple scenic trails, beach pavilions, pagodas, and Star-Gazing Square, Qixingtan has become a popular tourist destination, particularly known for its remarkably blue sky and turquoise seas.

In the afternoon, participants will head to Yilan.



Qixingtan

#### Day 3

The Wushi Port was inaugurated in the Sixth Year of Emperor Daoguang of the Qing Dynasty in 1826 and is thus historically important rather than just an ordinary fishery port. It only takes 5-minute drive from Wushi Harbor to the nearby fishing port, where lots of seafood waiting for you to taste. Participants can have the chance to experience whale-watching, dolphin-watching or Guishan Island debarkation.



Wushi Harbor



Guishan Island

#### Related tour information websites

- http://tour-hualien.hl.gov.tw/en/
- http://eng.taiwan.net.tw/
- http://eng.taiwan.net.tw/





## **Airport Pickup Service**

There is no individual airport pick up service. NCTU will arrange 3 shuttles at Taiwan Taoyuan International Airport.

Pick-up Schedule			
Date	Leaving		
July 6	16:00		
July 7	15:00		
July 7	18:00		

## For other arrivals can take the Taiwan High Speed Rail (THSR)





#### **Taoyuan International Airport**





Shuttle NTD 30



#### Taiwan High Speed Rail

Taoyuan >>> HsinchuShuttle NTD 130





Shuttle NTD 15

THSR Hsinchu >>> NCTU Bus Stop

10 ~ 15 min on foot





**NCTU North Gate** 

**Refer Information Counters at airport & THSR stations** 

#### **Contact Information**



Program Coordinator: Avis Liu



Tel: +886-3-571-2121 ext 50661



Email: avisliu@nctu.edu.tw



Fax: +886-3-573-1716









2016 NCTU Summer Program







#### About NCTU

- · Started as Nanyang College in Shanghai in 1896
- Re-established as NCTU in 1958 in Hsinchu, Taiwan, focusing on Electrical & Computer Engineering
- · Situated in Hsinchu, the "Silicon Valley" of Taiwan
- Strong Academic-Industrial Collaboration
- Two-thirds of the CEOs & general managers in the Hsinchu Science Park are NCTU alumni
- QS World University Rankings, 2015/16: #182
- · 51-100th in Engineering-Electrical & Electronic
- · 51-100th in Mechanical, Aeronautical & Manufacturing
- · 51-100th in Material Science
- · 101-150th in Computer Science & Information System
- · 101-150th in Engineering-Chemical
- QS Asian University Rankings, 2015/16: #31
- Academic Ranking of World Universities by Shanghai Jiao Tong University, 2014
- · 51-75th worldwide in Computer Science
- · 51-75th worldwide in Engineering
- ESI Publications in Computer Science: NCTU Ranked
   No. 1 in Taiwan and No. 20 in the world
- 10 Departments/Institutes accredited by Institute of Engineering Education Taiwan (IEET)
- · Best engineering program in Taiwan
- · College of Management accredited by AACSB
- 5th best MBA program in Asia (Asia Inc.)





## 2016 NCTU Summer Program

Coordinator: Ms. Avis Liu

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Phone: +886-3-571-2121 ext 50661

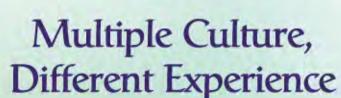
Fax: +886-3-573-1716

Office of International Affairs, National Chiao Tung University 1001 University Road, Hsinchu, Taiwan 30010, R.O.C.











## 2016 NCTU Summer Program

- NCTU offers 4-week intensive program: July 6 - August 5, 2016
- There are four modules in the program. 2 credits/36 hours courses and 1 credit/18 hours courses are offered.
- All credits are transferable among partner universities.

#### **Four Modules**

- Basic Professional Courses
- Mandarin Courses
- Management Courses
- · Culture Courses
- \* For detailed course and registration information please refer to http://www.ia.nctu.edu.tw/

## **Basic Professional Courses**

- Introduction to Communications Technology
- Convex Optimization
- · Digital Circuit Design
- Computer Organization
- Introduction to Engineering Mechanics
- · Design Thinking

## **Management Courses**

• The Competitiveness of Asian Enterprises from the Aspect of Innovation and Entrepreneurship

#### **Culture Courses**

- · Cyber Community and Culture
- · Information and Communication Technology Policies in Everyday Life
- · Music of Taiwan Culture and Practice
- Introduction to Linguistics
- · Language and Mind

#### Fee

l credit course	NTD 2,400
2 credits course	NTD 4,800
Mandarin Courses	NTD 4,800
Management Courses	NTD 4,800
Culture Courses	
1 credit course	NTD 2,400
2 credits course	NTD 4,800
Miscellaneous	NTD 9,000
Accommodation	
NCTU Dorm on campus	NTD 6,000
NSRRC Guest House	NTD 17,000
Culture Trip to Hualien	NTD 6,500

Application Deadline: April 17, 2016

		Course Schedule		
Time	Monday	Tuesday	Wednesday	
		Digital Circuit Desig	n	
09:00 ~ 12:00	The Competitiveness of Asian Enterprises from the Aspect of Innovation and Entrepreneurship			
	Mandarin Courses			
		Introduction to Linguistics		
	Cyber Community and Culture			
	Introduction to Communications Technology			
- 1	Convex Optimization			
_	Computer Organization			
		Music of Taiwan - Culture and Practice		
13:30 ~16:30	Language and Mind			
13.30 ~10.30	Introduction to Engineering Mechanics			
	Information and Communication Technology Policies in Everyday Life			
		Design Thinking		
2 credits/36	hours 7/11~8/3	1 credit/18 hours 7/11~7/20	1 credit/18 hours 7/25~8/3	



Pick-up Schedul	e
Date	Leaving
July 6	16:00
July 7	15:00
July 7	18:00

• Office of International Affairs will arrange 3 shuttles pick-up service at Taiwan Taoyuan International Airport as scheduled

## For other arrivals: please take the Taiwan High Speed Rail





#### Taiwan High Speed Rail

Taoyuan >>> Hsinchu Ticket NTD 130



Shuttle NTD 15



THSR Hsinchu >>> NCTU Bus Stop

10 ~ 15 min on foot



**NCTU North Gate** 

Refer Information Counters at airport & THSR stations