Entrepreneurship Courses for Doctoral Students (Compulsory)

**Center for Entrepreneurship Education (CEE)** 





To survive in an era of VUCA (Volatility, Uncertainty, Complexity and Ambiguity), it is necessary to be equipped with entrepreneurship mindset and skills.

Entrepreneurship  $\neq$  Start-up

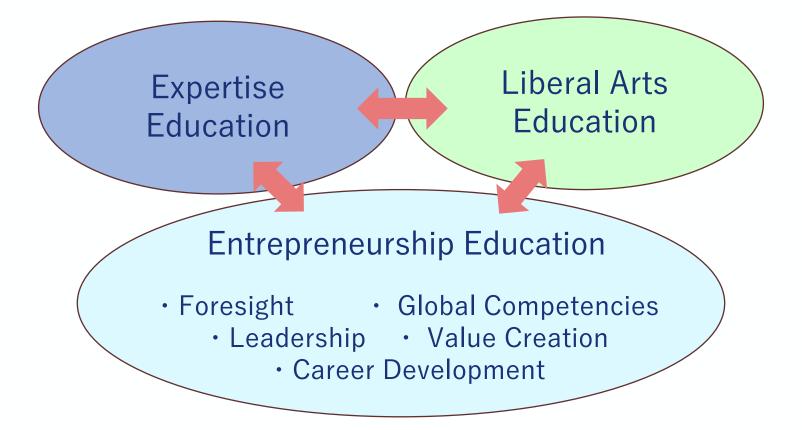
## **Entrepreneurship** >> **Start-up**

In Science Tokyo, entrepreneurship is defined as "a system of behaviour to create new value and implement it in the real world for the well-being of society"

so that you will be able to act autonomously

### Three Pillars of Science Tokyo's Education





Science Tokyo aims to develop human resources working for diverse organisations such as not only start-ups but also companies, universities, government agencies, international organisations, NGOs/NPOs, etc. who can solve global issues raised by the SDGs, etc. by creating new value, and can create future societies by utilising their comprehensive knowledge.



Science Tokyo will implement entrepreneurship education for all students in all degree programs.

Curriculum Models for Graduate Students:

- Entrepreneurship Education Core (M/D Mandatory)
- Global Education Option (M)
- Entrepreneurship Education Plus (D)



Entrepreneurship is like an operating system in computers. It is a system of behaviour (mindset and skills) necessary for all students' future career path to be acquired.

## **Competencies**, Knowledge and Skills to be Acquired



(1) Foresight

- Have a clear vision of a better future for society
- based on scientific and technological developments
- (2) Global Competencies

By understanding the essence of global issues and their relationship with oneself, and through collecting, analysing and elucidating, one should be able to make proposal for solution. Further, one shall be able to equip with collaborative skills with one(s) with different background (culture, custom, and language, etc.) based on respect and mutual understanding.

## (3) Leadership 样

Demonstrate leadership in building consensus among different stakeholders by recognizing hidden assumptions, respecting diversity and expressing opinions based on their own values.

(4) Value Creation







**Important components** 



# Competencies, Knowledge and Skills to be Acquired (Continued)



#### (4) Value Creation 🖊

Based on insights into essential issues in their own area of expertise, they create new value by repeatedly proposing solutions, implementing them and verifying them from multiple perspectives.

They also increase the probability of the process, bring it to fruition in the real world and achieve it with a sense of purpose.

#### (5) Career Development

Find role models as references for their future and develop their future careers. Basic knowledge required for success in society, including industry and company analysis, organizational financial accounting, laws, standards and other regulations, entrepreneurship, ethics and SGDs.

Social skills such as self-understanding and self-presentation, communication, critical thinking, writing, problem-solving and leadership will be obtained.

• CEE provides entrepreneurship courses on elements (1) to (5) at the 600 levels. It is recommended that students take these courses across as many components as possible, especially at least one credit from 'Leadership' and 'Value Creation'.

Also available are expertise courses provided by each school that can be regarded as entrepreneurship courses.
 6



#### Table D-2 Entrepreneurship courses provided by CEE (Excerpt.)

Elements	Level	Code	Course Title	Credit	Quarter		
Value	600	ENT.V601	Doctoral Introduction to Entrepreneurship 1 (博士アントレプレナーシップ入門 1)	1-0-0	3Q	英語 GAOD	GA0D
Creation	600	ENT.V602	Doctoral Introduction to Entrepreneurship 2 (博士アントレプレナーシップ入門 2)	1-0-0	4Q	英語 GAID	GA1D
Career	600	ENT.A621	博士アカデミックリテラシー (Doctoral Academic Literacy)	1-0-0	1Q/2Q/ 3Q/4Q	GA1D/原則とし て 博士後期課程入 学後半年以内は 履修不可	
	600					iA1D/博士後期 果程入学後半年	
			Practice)	0.5-0		以内は履修不可	



#### Table D-3 Entrepreneurship-deemed courses provided institute-wide (Excerpt.)

Elements	Level	Code	Course Title	Credit	Quarter	Category		GA0D
	600	TAL.C603	The Psychology of Leadership (リーダーシップの心理学)	1-0-0	4Q	ToTAL	英語 GA0D	$\mathbf{r}$
	600	TAL.S603	Leadership Facilitation Practicum (リーダーシップ・ファシリテーション演習)	0-1-0	1~2Q	ToTAL	英語 GA1D	
	600	TAL.A601	Doctoral Essential Course of Group Work for Leadership (博士リーダーシップ・グループワーク特論)	0-1-0	1~2Q/ 3~4Q	ToTAL	英語 GA1D	GA0D GA1D
Leader ship	600	TAL.I601	リーダーシップ・オフキャンパスプロジェクト (Leadership Off-Campus Project)	0-0-4	1Q/2Q / 3Q/4Q	ToTAL	GA0D GA1D	
	600	TAL 1602	リーダーシップ・異分野研究プロジェクト	0-0-4	1Q/2Q /	Total	GA0D	
		GA: Knowledge and Skills to be acquired					GA1D	
	600	TAL.W602	Doctoral Practical Group Work for Leadership I (博士リーダーシップ・グループワーク実践I)	0-2-0	1~2Q/ 3~4Q	ToTAL	英語 GA0D GA1D	



## Table D-4 Entrepreneurship-related courses provided institute-wide (Excerpt.)

Elements	Level	Code	Course Title	Credit	Quarter	Category		
	600	ENT.G601	Advanced International Experience 1AB for doctoral course (国際経験実践アドバンスト 1AB 博士)	0-0-1	1~2Q		英語 GA なし	No GA
	600	ENT.G602	Advanced International Experience 1CD for doctoral course (国際経験実践アドバンスト 1CD 博士)	0-0-1	3~4Q		英語 GA なし	2
国際性	600	ENT.G603	Advanced International Experience 2AB for doctoral course (国際経験実践アドバンスト 2AB 博士)	0-0-2	1~2Q		英語 GA なし	
	600	ENT.G604	Advanced International Experience 2CD for doctoral course (国際経験実践アドバンスト 2CD 博士)	0-0-2	3~4Q		英語 GA なし	
	600	ENT.G605	Advanced International Experience 3AB for doctoral course	0-0-3	1~2Q		英語 GA た I	

For those who would like to obtain more than 4 mandatory credits or to take 'Entrepreneurship Education Plus' Curriculum Model



- Each school provides expertise courses that can be regarded as entrepreneurship courses.
- GA has been recognized

Please check the 'Study Guide' for details.

Table ○ Courses that can be regarded as entrepreneurship courses for ●● Doctoral Program
 Entrepreneurship-deemed Courses offered by each School (Including information about GA)

Note Credits for one course cannot be double-counted for both expertise course and entrepreneurship course.



## Entrepreneurship Education Core (Doctoral)

It is compulsory for doctoral students to obtain at least 4 credits to fulfil the following two GAs (GA0D and GA1D) set out in Table D-1 in the 'Study Guide'.

#### Table D-1 Graduate Attributes

GA0D	You can clearly design your own career and contribute to realizing scient technological, or social innovation through a comprehensive understandi of the knowledge, skills, social responsibilities and ethics required become an active member of academia and/or industry.		
GA1D	You can lead in realizing scientific, technological, or social innovation by acquiring the advanced leadership skills, entrepreneurial skills, knowledge and expertise, and by developing social responsibility necessary for materializing your designed career.		

Note Credits for one course cannot be double-counted for both expertise course and entrepreneurship course.

• If you have earned at least two credits in addition to the four mandatory credits (core), 'Entrepreneurship Education Plus' certificate will be issued.

## Summary of Curriculum Models (Important)



	Doc	toral		
Elements	Core (Compulsory)	Plus		
Global Competencies				
Leadership	4 (GA0D and GA1D)	2		
Value Creation				
Career Development				
Total Credits	4	4+2		

 $\mathbf{r}$ 

**Certificate for Plus** 

• **Only course registration** is required for each model. (application or no other procedure is necessary)

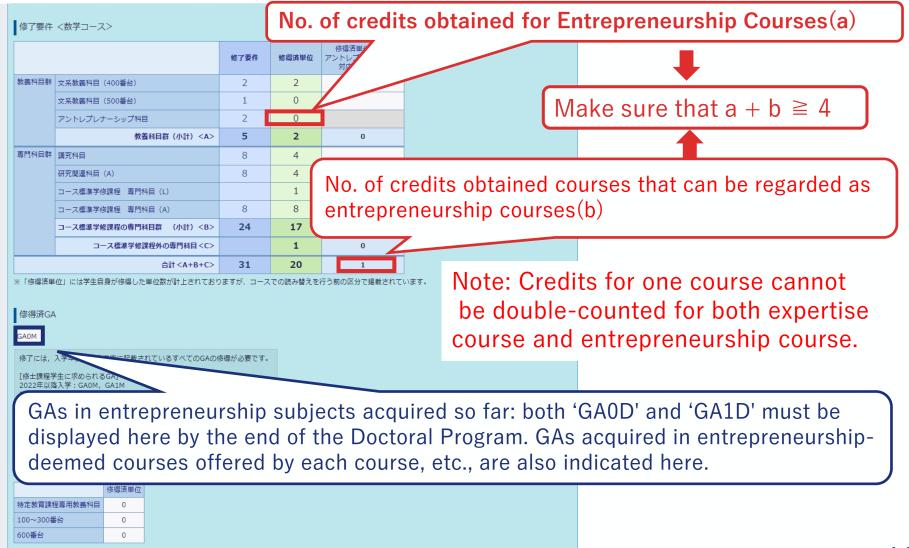


Ch	neck point	Info Location	QR Code
1	Completion requirements for your course	"List of Study Guides" → "Guide to Graduate Education and International Graduate Program(Fall 2024" → "Guide to Graduate Majors (for IGP) "	
2	Entrepreneurship courses	"List of Study Guides" → "Guide to Graduate Education and International Graduate Program(Fall 2024"	
3	Courses that are regarded as the Entrepreneurship courses	<ul> <li>→ " Liberal Arts and Basic Science Courses" →</li> <li>"Entrepreneurship courses"</li> </ul>	EE12649759
4	Timetable for Entrepreneurship courses	"Current Students" → "Academic Life" "Graduate Timetable" "Entrepreneurship Courses"	
5	Course Registration	<ul> <li>"Science Tokyo Portal"</li> <li>→Web Services for Students and Faculty</li> <li>→Registration</li> </ul>	

# How to check credits and GA for entrepreneurship courses in the "Web Services for Students and Faculty"



#### [Web Services for Students and Faculty" for each student]



# Information Sessions and Materials for New Students



Leadership and Value Creation: Briefing Session Friday, April 4, 2025, 6:00 p.m. - 7:00 p.m. (In Japanese and English, in person and online) Details & registration: <u>https://www.total.titech.ac.jp/en/lead\_innov/</u>

Career Development : Materials / Videos <u>https://www.cee.titech.ac.jp/info18.html</u>









## **END**