Duties of the fellow students

"Fellowship program to foster architects who can lead super-smart society with co-creating innovative solutions to "X-care" social issues"

"Fellowship program to foster international Ph.D. holding researchers through materials innovations"

May 2021

FS Support Office

Program Degree Awarding Policy

Fellowship program to foster architects who can lead super-smart society with co-creating innovative solutions to "X-care" social issues

1. Objective

This program aims to **foster architects who can provide solutions to "X-care" social issues by co-creation process** with various stakeholders. "X-care" is a coined word to put together the following social issues: Human Health Care, Product Care, Social System Care, and Culture Care. It is important to watch for the conditions (healthiness/soundness) of those X-cares and prevent unhealthy situations, as well as to provide a suitable solution for making a swift recovery when finding a malfunction. The architects are expected to possess the following abilities: 1) ability to judge which information to collect for evaluating the health conditions of the X-Care social issues, 2) expertise to study the soundness of X-Care social issues essentially based on the collected data, and 3) Data analytics skills to be able to process and analyze the collected data concerning the X-Care social issues promptly by utilizing appropriate algorithm. In addition, in order to solve the X-Care social issues, it is required to have skills to design a sustainable ecosystem and to work in collaboration with others. Given the backgrounds, this program aims to foster **researchers who possess the ability to solve social issues mainly with Informatics and interdisciplinary approaches through collaboration with Natural Sciences and Humanities & Social Sciences.**

Fellowship program to foster international Ph.D. holding researchers through materials innovations

1. Prospective Profile of the Program Graduates

Future Ph.D. holding researchers who can further develop the following qualifications, and those who can lead the future science technologies through highly innovative materials research based on Nanoscience.

- High expertise
- Excellent creativity
- International mindset
- Decision-making skills in developing own career path

Duties of the fellow students

① Enroll in Technology-based Entrepreneurship Courses and obtain required credits

② Participate a long-term internship

③ Manage your own portfolio based on the in-demand skills

④ Research achievement evaluation and research performance progress report (Twice a year)

It is recommended for candidates to actively apply for D1 and D2 Program of JSPS Research Fellowship for Young Scientists.

Students are required to earn at least 8 points in three years

【Super-smart society】   Courses written in red are compulsory.

Categories	Course titles / details	Points (p)	Point requirements	Notes
Research Basics	Research Proposal			Academic reports (Twice a year) Report #1: in form of documents Report #2: in form of presentation (a part of annual qualification review)
	Portfolio			
Discipline-specific Knowledge	Informatics Courses: "Statistical Analysis of Big Data", "Fundamentals of Machine Learning", and "Probability and Statistics"	1 course = 1p	2p	Up to 2 courses (2 points) may be counted toward the overall program points
	Co-creative research collaboration (Problem solving competition for development of smart society)	2p	2p	Compulsory Earn 2 points by the end of D2 year
Transferrable Skills	Technology-based Entrepreneurship Course (TEC I , II ,IV)	1 credit = 1p	2p	
	Special communication seminar based on multidisciplinary sciences			
	Others: events, academic competitions, etc.	1p each		
Career Design Skills	Long-term internship (Domestic/Overseas, TEC III)	2p	2p	Compulsory
	"Interactive matching" (Meet & Greet with companies for internship opportunities)	1p		
	Others	1p each		
Minimum points for program completion			8 p	

Criteria for qualification reviews

At completion of D1 year   2p or more
At completion of D2 year   6p or more
At completion of D3 year   8p or more

Students are required to earn at least 7 points in three years

【Matrials】

Courses written in red are compulsory.

Categories	Course titles / details	Points (p)	Point requirements	Notes
Research Basics	Research Proposal			Academic reports (Twice a year) Report #1: in form of documents
	Portfolio			Report #2: in form of presentation (a part of annual qualification review)
Transferrable Skills	Technology-based Entrepreneurship Course (TEC I , II ,IV)	1 credit = 1p	4p	
	Special communication seminar based on multidisciplinary sciences			
	Others: events, academic competitions, etc.	1p each		
Global Skills	Overseas vice-supervisor			This should be incorporated in the research proposal
	Studying abroad program or EDGE overseas event	2p		
Career Design Skills	Long-term internship (Domestic/Overseas, TEC III)	2p	3p	Compulsory
	"Interactive matching" (Meet & Greet with companies for internship opportunities)	1p		
	Others	1p each		
Minimum points for program completion			7p	

Criteria for qualification reviews

At completion of D1 year   2p or more

At completion of D2 year   4p or more

At completion of D3 year   7p or more

Qualification review (Super-smart society, Materials)

【Objective】
Review the competencies of fellow students based on his/her research progress and acquired course credits (points).
Fellow students must pass the review process to obtain the fellowship qualification for the next fiscal year.

【Review process】
Held **twice a year**
① Review #1 (in autumn): **Document based review**, which requires the submissions of research proposal and portfolio
② Review #2 (in winter): **Interview based review**, which requires a presentation (in addition to the submission of updated documents, namely research proposal and portfolio)