

Yamaguchi Future Creation School (YFCS)

1. Outline of YFCS

The Yamaguchi Future Creation School (YFCS), the president of which is the program manager, was established to foster doctoral students who take responsibility for the creation of innovation to realize Society 5.0, and human resources with high levels of expertise and innovation mindsets who can practice interdisciplinary research. The YFCS is a place for interdisciplinary research and plays an important role in expanding innovation education across all graduate schools. Furthermore, the YFCS provides educational programs that cultivate students' transferable skills, career design, international perspectives, and research abilities (the driving force in interdisciplinary research). Shin Monju Groups (interdisciplinary groups of three students) have been established to enable students to be mutually inspired and acquire multidisciplinary knowledge. Students hone transferable skills and engage in challenging interdisciplinary research through group activities. The YFCS will conduct a follow-up survey approximately ten years after students' graduation to verify the effect of these practices on human resource development.

2. Ideal type of human resources graduating from YFCS

The YFCS aims to foster human resources that do not withdraw into their own research area and have a mindset to actively conduct interdisciplinary research. The "Creation of Innovation" is a typical phrase used by many graduate schools to describe the ideal type of human resources. YFCS students are expected to obtain five abilities: the ability to correlate, the ability to enquire, the ability to observe, networking abilities, and the ability to experiment.

Ideal type of human resources after graduation from each graduate school

Graduate School of Science and Technology for Innovation

Researchers and highly specialized professionals who are interested in interdisciplinary research and who possess innovation mindsets and basic skills to conduct interdisciplinary research.

Graduate School of Medicine

Healthcare professionals who change the medical field and ideas about medicine by developing medical technologies with an interest in the various needs of the

field and interdisciplinary research, which realizes treatment techniques based on new ideas.

Joint Graduate School of Veterinary Medicine

Veterinarians and persons who change the animal medical field and ideas about animal medicine by developing treatment techniques with an interest in the various needs of the animal medical field and interdisciplinary research that realizes treatment techniques based on new ideas.

Graduate School of East Asian Studies

Researchers and highly specialized professionals who are interested in interdisciplinary research who possess an innovation mindset and basic skills to conduct interdisciplinary research and collect multidisciplinary knowledge.

3. YFSC Program

YFSC provides educational programs in which students can not only cultivate transferable skills that are the foundation of the abilities to correlate, enquire, observe, network, and experiment, which are necessary for innovation, but also career design, internationality, and research abilities (the driving force in interdisciplinary research). Details about participation in the program will be provided after students enter the YFSC. The contents mentioned below may differ for students enrolled in the final year of the program.

① Provision of a place for students to cultivate and practice transferable skills.

Inter-graduate classes in the Graduate School of Science and Technology for Innovation aim to help students cultivate the skills necessary to meet challenges and organize information. These classes consist of advanced courses in research methodology, innovation, technology road mapping, and product development. Selected students are required to take at least one of these courses. Students will be notified of details including the course opening period and the methodology employed in the courses after entering the school.

To cultivate skills that enable them to manage themselves, students are expected to analyze their research based on the above-mentioned abilities that they have cultivated. Furthermore, students develop their abilities by attending scheduled seminars.

To cultivate skills to communicate and build relationships with other people, students are recommended to take inter-graduate school classes on advanced presentation skills and scientific writing.

To practice cultivated transferable skills, groups of three students from different grades, graduate schools, and majors (Shin Monju Groups) will be established. The selected students are required to actively engage in group activities. The details of these activities will be provided later.

② Provision of a place for students to cultivate career design and practice skills

The school will hold the class Career Design II to inspire students to contemplate their career paths. Extramural lecturers, including those presented by businesspeople and entrepreneurs, and lecturers from members of the university, such as the Dean of the graduate school, will discuss the various career paths students might pursue after completing the doctoral course. Students are strongly recommended to attend these lectures. Furthermore, seminars that help students build their career paths are regularly held.

The school will provide students with internship opportunities in which they can practice career design. The Career Path Design Promotion Office will make arrangements for internships.

③ Provision of a place for students to cultivate internationality and practice skills

The school will hold various seminars in which English will be used as a communication tool. Students are required to actively attend such seminars.

The overseas training program provided by each graduate school will be utilized to develop students' internationality. Students are able to use the provided research expenses for overseas travel expenses.

④ Provision of a place for students to cultivate their research abilities and practice their skills, with a focus on interdisciplinary research.

The school requires students to develop interdisciplinary research skills. To this end, groups of three students from different grades, graduate schools, and majors

(Shin Monju Groups) have been established. Group activities are expected to enable students to inspire each other, and to make interdisciplinary research more practical.

Outline of Shin Monju Groups

The group provided students the opportunity to practice the skills that the school expects to cultivate.

Mentors in each group check the progress of the activities and provide students with advice as needed. However, mentors are expected to avoid excessive interference.

Mentors are not only Yamaguchi University professors, they may also be businesspeople and members of public testing/research laboratories.