GRADUATE PROGRAM FOR
REAL-WORLD DATA CIRCULATION LEADERS
PROGRAM FOR LEADING GRADUATE SCHOOLS
NAGOYA UNIVERSITY

Additional Admission Requirements in the Spring (General Selection)

Number of students to be accepted:

Limited number of students will be accepted for the forth inaugural class which will start in July 2017 or October 2017, depending on the potential capacity of the applicants.

Admission requirements:

Students must be accepted for admission or currently enrolled in one of the following graduate schools of Nagoya University to start in April 2017 or October 2017: Informatics, Engineering, Medicine, or Economics. Students must also be willing to participate in the Real-World Data Circulation Leaders Program for 5 years.

Acceptance of applications	May 25 (Wed) - 5 PM May 31 (Thu), 2017

Schedule of interviews	June 8 (Thu), 2017 Details will be announced after your application.

Announcement of results	June 12 (Mon), 2017 The selection results will be sent via e-mail and announced on our website.

Objectives and admission policies:

Nagoya University has established a five-year graduate program on data circulation to produce global leaders in industry, academia, and government who can incorporate the desires of users into new products, services, and social values.

A midst the ever-competitive environment due in part to globalization, the competitive edge of Japanese industries must be strengthened by producing leaders capable of creating new social values in which people using products and services share fundamental values of convenience, joy, health, and affluence. These values are created through a dynamic process involving users and designers rather than through a unilateral conveyance from designers to users. Because fundamental values change as society changes, data circulation, which involves continuously understanding the desires of the users to create new products and services, is truly the process of creating social values.

We believe that a new academic field is necessary to create data circulation for the following two reasons. First, creating new social values requires methodologies in fields that handle more fundamental values, including convenience (engineering), joy (information science), health (medicine), and affluence (economics). Second, generating a circulation between desires of users and innovative products and services, requires that three functions be integrated: acquisition, analysis, and implementation. The acquisition function gathers the input of users as digital data through observations of various real-world phenomena. The analysis function evaluates this digital data using information science, while the implementation function develops the analysis results into new products and services.

We call this new academic field Real-World Data Circulation. This program will produce leaders in this field who can create new social values. Program participants will have a Ph.D. level of knowledge in their area of expertise and the ability to lead teams in generating Real-World Data Circulation to enhance the social values of their research.

Application procedures:

The application form is available at: http://www.rwdc.is.nagoya-u.ac.jp/eng/recruit/index.php.
Send the completed application to: application@rwdc.is.nagoya-u.ac.jp. Students must submit items 1, 2, and 4. (Item 3 is optional.)

1. Application form
2. Transcript: To be prepared by your undergraduate university and scanned.
3. Letter of recommendation (optional): To be prepared by your current thesis supervisor or equivalent.
4. Copy of the applicant's score sheet of external English exams of TOEFL or TOEIC.

Either the copy that an applicant submitted at the entrance examination of the graduate school or a copy of the score of an examination that the applicant took after June 1st, 2015.
There is no application fee.

Notification of the results:

The selection results will be sent via e-mail and announced on our website on Monday, June 12, 2017.

Remarks:

Applicants selected to participate in this program will be offered financial assistance. Funding for this scholarship under the government's Grants for Creating Research and Education Bases (Leading Programs in Doctoral Education) system is expected to be discontinued in March, 2020. While you are financially supported by our program, you are not eligible to receive financial supports from JASSO scholarship program, or any other form of financial assistance that does not require repayment. Those applicants, who are employed by any institutions or industries and have income, are also not eligible to receive the financial assistance from the program.

<Financial Assistance for Current Students> Monthly stipend of 85,000 yen (M1 students) / Monthly stipend of 200,000 yen (From M2 to D3)

Privacy policy:

Personal information submitted as part of the application, including your name, address, and other information, is used solely for program selection, interviews, notification of results, and other businesses related to this graduate program. Personal information used for selection, including test scores, is used for statistical analysis and research about the selection method, and part of such work may be contracted out. If this is the case, we will first establish an agreement with the external contractor before disclosing part or all of your personal information.

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Curriculum

Coursework:
Courses required acquiring fundamental knowledge in Real-World Data Circulation

Introduction to Data Tools	This is an introductory course on data processing, which is offered prior to program commencement to guarantee that new students have a minimum level of knowledge on this subject.	
Real-World Data Acquisition Courses	Engineering	Image Signal Processing, Human System Engineering, Biomechanics
	Social Sciences	Advanced Econometrics, Microeconomics, Social System Informatics, Social System Design
	Humanities	Molecular Neuroscience, Medical Informatics, Human Information Processing, Human-assisted Media Processing
Selected Topics in Real-World Data Analysis	Database, Signal Processing, Machine Learning, Pattern Processing, Causal Inference, Omics Analysis, Text Processing, 3D Computer Vision	
Selected Topics in Real-World Data Circulation Systems I	Smart Grids, Genomic Medicine, Intelligent Robotics, Regional Medical Information Systems, Market Design	
Selected Topics in Real-World Data Circulation Systems II	Case Studies from Our Industry Partners	
Fundamental Courses in a Specialty Area	Dynamic Systems, Selected Topics in Media Science, Econometrics, Biochemistry, Physiology, Morphology	
Leadership Seminars	The program includes lectures and seminars on practical skills required to become business leaders and managers.	

Real-world Work: Innovation Circulation
This program lets students experience circulation between development research and fundamental research while working on their thesis. Students will engage in project-oriented group works and internships in conjunction with our industry partners.

Industry–Academia–Government Project	Students will participate in a six-month project that matches our Master's seminar projects based on industry needs.
Research Internship	Students will participate in joint research internships provided by the Graduate School of Engineering, the Graduate School of Informatics, or our industry partners.

Real-world Work: Global Circulation
Students will experience global circulation of industry and international cooperation through international experiences, which have a preset duration.

Global Challenge I	Students will join summer schools under the Nagoya University Summer Intensive Program (NUSIP) at major overseas production centers of Japanese corporations. Location: Hanoi or Istanbul (to be confirmed) Duration: About two weeks (during the first semester of the M2 year)
Global Challenge II	Students will do research at overseas research institutes. Location: Carnegie Mellon University, Massachusetts Institute of Technology, Queensland University, University of Southern Denmark, Istanbul Technical University, or Hanoi University of Science and Technology, etc. Duration: About three months (during D1 to D2)
Follow-up Visit	Students will revisit the research institute as a group with students from other disciplines. Duration: One to two weeks (during D2 to D3)

Theses work: Master's thesis, Ph.D. thesis planning, and Ph.D. thesis
To encourage independent research that encompasses multiple disciplines, students will choose their own supervisor for their intermediate and Ph.D. thesis projects. If desired, they can also choose an external supervisor.

Master's thesis work	Under the supervision of a faculty member in the appropriate specialty at the time of program enrollment, students will conduct their Master's thesis work on a topic of their choice within the context of "acquisition, analysis, and implementation of Real-World Data Circulation."
Ph.D. thesis planning (intermediate supervision)	Under the guidance of an intermediate thesis supervisor, students will prepare a Ph.D. thesis proposal and present their research plan during the D1 year. The research plan should aim to resolve a specific issue based on the circulation of real-world data.
Ph.D. thesis work	With the approval of a Ph.D. supervisor, students will conduct and write a Ph.D. thesis based on their research plan. An internal Ph.D. supervisor should be accompanied by an external sub-supervisor.