Model of Study Plan for the Tokyo University of Agriculture and Technology (TUAT) Leading Program (for students enrolling in April 2013)

1. Creating a Program Study Plan

The curriculum of the program, administered by multiple members of the teaching faculty, consists of a wide range of components such as lectures and practicals and study abroad. Students in this program benefit from effective and appropriate education and research guidance that is tailored to their individual needs and future plans. This enables them to excel as future practical scientists. To realize such aspirations, students create a five-year plan during the first stage of the program.

2. Schedule for Creating a Program Study Plan

During the selection stage, each student must create a preliminary plan, which is then subject to screening. Following enrollment in the program, students are required to complete their plans through a series of lectures and colloquia under the career development program, which is conducted during the PreD stage in April (M1 for those enrolling in the 2013 academic year).

Qualifying Exam 1 is administered during the D0 stage (the M2 stage for those enrolling in the 2013 academic year), which tests the students' progress with respect to their plans. If necessary, a re-examination of their plans will occur following their progression to the D1 stage.

3. Applicant Model Examples (Reference)

Study Plans for Education and Research in this Program (Approaches and Examples)

I. Five-Year Vision for the Program

At the time of enrollment, students formulate their own five-year plans as to how they will contribute to "clean and green food production," which is the overall goal of this program. These plans should clearly state the abilities and knowledge that they will require in relation to their intended research topic, which they will develop following their progression to the D1 stage (implemented as a master's thesis for those enrolling in the 2013 academic year). The research topic can be changed during their progression to the D1 stage.

Ideas for Green Clean Food Production

Example 1: Construction of systems that can supply and store natural energy and recycle and reuse water, phosphorus, etc. for food production in barren regions such as deserts.

Example 2: Development of high-added value urban food production and food businesses.

Example 3: Food and energy production that can enhance self-reliance for underpopulated communities and in semi-mountainous regions.

Research Topics to be undertaken as Professionals

Example 1: Development of high-efficiency, high-capacity capacitors for plant factories.
Example 2: Safe and secure high-added value food production.

Required skills and knowledge (examples) for the program study plan including descriptions (other than composing master's theses and doctoral dissertations), which helps students develop appropriate skills as professionals)

The imagination required for proposing appropriate food production methods in target regions and communities.

Effective negotiating skills and valuable linguistic abilities can facilitate mutual understanding with those living in all types of areas.

Knowledge of plant factory design along with a general knowledge of topics such as culture, history, law, economics, and ethics enable their continuous operation.

II. Potential Candidates for the Primary Academic Supervisor and Assistant Academic Supervisor and Reasons for Selecting Them

Main Academic Supervisor

Academic Supervisor A

Reason: Since this member of the teaching faculty is a world-renowned authority on_____, I intend to interview him/her for my doctoral dissertation.

Assistant Academic Supervisor

Academic Supervisor B

Reason: Since this member of the teaching faculty possesses a basic knowledge of _____ in its application to the food production of _____, I intend to interview him/her for my doctoral dissertation. This knowledge could possibly be developed further as collaborative research in

the future.

Academic Supervisor C

Reason: To obtain knowledge on environmental economics required for food production.

(More Detailed Examples)

Academic Supervisor A, Graduate School of Engineering, Professor N

Reason: Since I wish to undertake further research on high-capacity capacitors, which I worked on in my dissertation under the instruction of this professor who is a world authority in this field.

Academic Supervisor B, Graduate School of Agriculture, Professor O

Reason: I wish to understand the capabilities and functions of capacitors which are required for plant factories under the instruction of this professor.

Academic Supervisor C, Sophia University, Professor W

Reason: I wish to acquire the ability to examine how to establish plant factories in barren regions in an economical manner by using quantitative economic methods under the instruction of this professor.

III. Specific Study Plans

Master's Program Year 1 <PreD>

April–September

Leading Program: Career development program, basic subject (take Environmental Economics at Sophia University)

Leading Program: Take a social interaction subject (overseas, three days)

(Take a basic subject in the student's major)

(Implementation of master's thesis research and seminars in the student's major)

October–March

Leading Program: Basic subject (take practical humanities subjects)

Leading Program: Take a social interaction subject (participation in internship, one week)

(Take a basic subject in the student's major)

(Implementation of master's thesis research and seminars in the student's major)

Take the TOEFL/TOEIC examination

Master's Program Year 2 <D0>

April–September

Leading Program: Research experience in another laboratory (Assistant Academic Supervisor B)

(Take a basic subject in the student's major)

(Implementation of master's thesis research and seminars in the student's major)

October–March

Leading Program: Research experience in another laboratory (Assistant Academic Supervisor C)

Leading Program: Take Qualifying Exam 1

  (Take the examination for enrollment (progression) in a doctoral program at this university)

(Take a specialist subject in the student's major)

(Create a master's thesis, take seminars)

  (Acquisition of the master's degree)

    Take the TOEFL/TOEIC examination

Doctoral Program Year 1 <D1>

April–September

Leading Program: Internship (three months)

Leading Program: Take an international subject

(Take a specialist subject in the student's major)

  (Take doctoral dissertation research and seminars in the student's major)

October–March

Initial Program: Study abroad (1–3 months)

Initial Program: Take a basic subject

(Take a specialized subject in the student's major)

(Take doctoral dissertation research and seminars in the student's major)

    Achieve a TOEFL iBT score of 80.

Doctoral Program Year 2 <D2>

April–September

Leading Program: Take an innovation subject

  (Take a specialized subject in the student's major)

  (Take doctoral dissertation research and seminars in the student's major)

October–March

  (Take a specialized subject in the student's major)

(Take doctoral dissertation research and seminars in the student's major)

    Achieve a TOEFL iBT score of 90.

    Informal decision regarding employment

Doctoral Program Year 3 <D3>

April–September

Leading Program: Take Qualifying Exam 2

  (Take a specialized subject in the student's major)

  (Take doctoral dissertation composition and seminars in the student's major)

October–March

(Take a specialized subject in the student's major)

(Screening of doctoral dissertation composition in the student's major)

Achieve a TOEFL iBT score of 100.

Leading Program: Evaluation of grades

(Acquisition of the doctoral degree)

Leading Program: Acquisition of the certificate of completion

Find employment at a company following completion of the program.