

University Council Athens, Georgia 30602

January 8, 2016

UNIVERSITY CURRICULUM COMMITTEE - 2015-2016 Dr. William K. Vencill, Chair Agricultural and Environmental Sciences - Dr. Robert B. Beckstead Arts and Sciences - Dr. Sujata Iyengar (Arts) Dr. Rodney Mauricio (Sciences) Business - Dr. Myra L. Moore Ecology - Dr. James W. Porter Education - Dr. Seock-Ho Kim Engineering - Dr. Sudhagar Mani Environment and Design - Mr. David Spooner Family and Consumer Sciences - Dr. Silvia Giraudo Forestry and Natural Resources - Dr. John C. Maerz Journalism and Mass Communication - Dr. Alison F. Alexander Law - Ms. Elizabeth Weeks Leonard Pharmacy - Dr. Cory Momany Public and International Affairs - Dr. Robert Grafstein Public Health - Dr. Katie D. Hein Social Work - Dr. David O. Okech Veterinary Medicine - Dr. Kira L. Epstein Graduate School - Dr. Timothy L. Foutz Ex-Officio - Provost Pamela S. Whitten Undergraduate Student Representative - Ms. Taylor K. Lamb Graduate Student Representative - Ms. A. June Brawner

Dear Colleagues:

The attached proposal for a new dual degree in Crop and Soil Sciences (M.S.) with an Area of Emphasis in Sustainable Agriculture from the University of Georgia and Sustainable Agriculture (M.S.) from the University of Padova, Italy will be an agenda item for the January 15, 2016, Full University Curriculum Committee meeting.

Sincerely,

Welliam & Vennie

William K. Vencill, Chair University Curriculum Committee

cc: Provost Pamela S. Whitten Dr. Rahul Shrivastav

Committee on Facilities, Committee on Intercollegiate Athletics, Committee on Statutes, Bylaws, and Committees, Committee on Student Affairs, Curriculum Committee, Educational Affairs Committee, Executive Committee, Faculty Admissions Committee, Faculty Affairs Committee, Faculty Grievance Committee, Faculty Post-Tenure Review Appeals Committee, Faculty/Staff Parking Appeals Committee, Human Resources Committee, Strategic Planning Committee, University Libraries Committee, University Promotion and Tenure Appeals Committee An Equal Opportunity/Affirmative Action Institution



College of Agricultural and Environmental Sciences Office of the Dean and Director

September 24, 2015

Dr. Suzanne Barbour Dean of the Graduate School The University of Georgia 210 South Jackson Street CAMPUS

Dear Dr. Barbour,

Please find attached, a request to offer a <u>Dual Degree M.S. Program between The University of</u> <u>Georgia and the University of Padova, Italy (UNIPD)</u>. The program will be offered by the Department of Crop and Soil Sciences at UGA and the Department of Agronomy, Food, Natural Resources, Animals and Environment (DAFNAE) at UNIPD. This dual degree program shall function within the current M.S. program in the Department of Crop and Soil Sciences at UGA, This is not a new degree program for the department. Students enrolled in the program shall earn an M.S. in Crop and Soil Sciences with an area of emphasis in Sustainable Agriculture from UGA and an M.S. in Sustainable Agriculture form UNIPD.

The proposal was developed by the Department of Crop and Soil Sciences in consultation with the UGA Graduate School and the Office of International Education. Subsequently, the College Graduate Affairs and Curriculum Committee and the CAES Faculty Council approved the proposal. I fully support this proposal.

Thanks for your consideration. Please let me know if you have any questions or need any additional documentation.

Josef M. Broder Interim Dean and Director

enclosures

cy: Fiona Liken

## The University System of Georgia Format for Dual Degree Program Proposal (Submit original and three copies)

- 1. Institution(s): The University of Georgia
- 2. Date: September 5, 2015
- 3. School(s)/College(s)/Division(s)/Institution(s): Agricultural and Environmental Sciences (UGA)

Universitá Delgi Studi Di Padova (UNIPD, Italy)

4. Departments: Crop and Soil Sciences

Agronomy, Food, Natural Resources, Animals and the Environment

5. Degrees to be offered: Master of Science (M.S., UGA)

Laurea Magistrale (M.S., UNIPD)

6. Majors to be offered: Crop and Soil Sciences (UGA)

Sustainable Agriculture (UNIPD)

- 7. Starting date: Fall 2016
- 8. Program abstract

This proposal seeks approval to offer a dual degree M.S. program between the University of Georgia (UGA) and the University of Padova, Italy (UNIPD). The program will be offered by the department of Crop and Soil Sciences of UGA and the Department of Agronomy, Food, Natural Resources, Animals and Environment (DAFNAE) of UNIPD. This dual degree program shall function within the current M.S. program in the Department of Crop and Soil Sciences at UGA, so it is not a new degree program for the department. Students enrolled in the program shall earn an M.S. in Crop and Soil Sciences with an area of emphasis in Sustainable Agriculture from UGA and an M.S. in Sustainable Agriculture from UNIPD.

Students shall spend the first year at their home institution taking most of the required courses for the degree, and shall spend the second year completing elective coursework, any remaining required courses, and doing research at the host institution. Students originating in the U.S. shall enroll in courses at UGA during their first year, and at the University of Padova (UNIPD) during their second year. Students originating in Italy shall enroll in courses at UNIPD during their first year, and at UGA during their first year, and at UGA during their second year.

### 9. Objectives of the program

The student learning objectives for the program are the same as those already in place for the M.S. in Crop and Soil Sciences at UGA, which are listed below. The effort towards achieving these learning objectives by our students will be enhanced by opportunities to be exposed to research and instruction at a European institution with a long history and a strong reputation.

a. Graduates should have a fundamental understanding of the scientific method and be capable of critical thinking.

b. Graduates should have in-depth knowledge in one of the following areas: sustainable agriculture, plant breeding and genetics, biotechnology, weed control, crop production and management, forage production and utilization, soil chemistry, soil physics, atmospheric physics, soil classification and genesis, soil erosion and conservation, soil fertility and plant nutrition, or soil microbiology.

c. Graduates should have strong communication and technical skills.

d. Graduates should be able to conduct original research and be prepared to enter a Ph.D. program or a non-academic position.

#### 10. Justification and need for the program

a: Societal needs. One of the great challenges facing humanity is its enduring quest for sustainable food production systems. A sustainable agriculture system must ensure farm profitability and income stability with fewer farming inputs while simultaneously enhancing crop quality, improving soil health, water availability and quality, and reducing greenhouse emissions. The need to improve nutrient efficiency and recycling in agriculture has become evident with the realization that geologic deposits of nutrients such as phosphorus and potassium are likely to be exhausted within a few generations. Furthermore, water for irrigation is becoming scarce in many regions of the world, and water for human consumption is being contaminated by organic and inorganic compounds transported from agricultural and industrial fields. Additionally, crop production in many regions of the world is being threatened by the development of herbicide-resistant weeds and chemical-resistant insects and pathogens. Addressing all of these challenges will require research to develop new technologies and adaptive management systems for nutrient and water recycling, building soil health, and integrating biodiversity into weed, insect, and disease control. These new or modified technologies must also be resilient and able to adapt to climate uncertainties while building some certainty in food security. Research efforts to accomplish these objectives will require increased international cooperation among scientists to accelerate and increase scientific achievements. It is with this background and motivation that UGA and UNIPD propose the development of a dual M.S. degree in Sustainable Agriculture in which students will spend one year in Italy and one year in the U.S.A. to complete course and research requirements. This program will give students from both countries an international perspective of research in their areas of interest, an opportunity to improve their critical thinking skills by analyzing data from international projects, and an international appreciation for cultural diversity. In addition, the program will improve ties between faculty members of both institutions, which will likely result in additional collaborative research opportunities in sustainable agriculture.

**b.** Demand for the program. As described in section 12 below, two of our faculty members have been involved in a pilot exchange program funded by the USDA NIFA International Science and Education Program. The pilot program allowed us to host two UNIPD graduate students who conducted their M.S. thesis research at UGA and to send two UGA M.S. students to UNIPD to conduct their M.S. thesis research. All the participating students received M.S. degrees only from their home institutions. The explicit goal of the pilot program was for it to lead to the development of a dual degree between UGA and UNIPD. It was the success of the pilot program as well as

student interest in participating that prompted this proposal for a dual degree M.S. program between UGA and UNIPD.

## 11. Describe the process by which the proposed program was developed.

Two faculty members in Crop and Soil Sciences and the associate director from the College of Agricultural and Environmental Sciences Office of Global Programs travelled to Padova, Italy, in January 2015 as guests of the University of Padova to discuss the operational details of the dual degree M.S. program. The UGA delegates held meetings with faculty and administrators of UNIPD, all of whom expressed a strong interest in the program. On return from Padova, UGA and UNIPD staff and faculty worked collaboratively to develop a Memorandum of Understanding (MOU), the curriculum, and this proposal for the dual degree program.

## 12. Curriculum

The program of study for participating students shall be developed according to the requirements and options described in Appendix A, and shall accumulate 120 CFU (credito formativo universitario) for students from UNIPD and 60-64 credit hours for students from UGA. The program of study for the UGA degree must contain a minimum of 30 hours of graduate course work and must include a minimum of 3 hours of 7300 (thesis writing). The department requires the program of study to include CRSS 8100 (Advanced Crop and Soil Sciences Seminar) and at least one course in Statistics. Example Programs of Study for a UGA student and a UNIPD student can be found in Appendix A.

## 13. Administration

Each institution will appoint an Academic Board composed of three academically qualified faculty members to oversee administration of the program and ensure it meets institutional requirements for governance and quality. Students shall apply for admission to both universities and shall be admitted according to the regular admission procedures of each institution. A student's advisory committee shall include members from both institutions and, whenever possible, the thesis will be co-supervised by a professor or researcher from each institution.

For admission to UGA, prospective students must have a bachelor's degree from an accredited institution and a minimum GPA of 3.0. Applicants must submit any required test scores (e.g., GRE, TOEFL), transcripts, and letters of recommendation in accordance with UGA policy.

The program of study shall be developed by the Advisory Committee and shall be designed to satisfy requirements for the M.S. degree of both institutions. Courses taken at UNIPD as part of the Program of Study shall be in English and shall be evaluated and approved by the Graduate Committee of the Department of Crop and Soil Sciences at UGA. Courses taken at UGA as part of the Program of Study shall be in English and shall be evaluated and approved by the Graduate Committee of the Department of Agronomy, Food, Natural Resources, Animals and Environment at UNIPD.

## 14. Assessment

The quality of the program will be evaluated by external and internal procedures.

a. The Partner Institutions are part of their respective state or national university systems, and as a consequence their academic programs are evaluated on a regular basis by external certified bodies.

b. Each institution will ensure that academically qualified faculty are responsible for academic instruction and supervision of research in the program.

c. An Internal Quality Assurance Protocol will be established and managed jointly by both partners to ensure the continued quality of the dual degree program. This protocol will include an assessment of learning outcomes as well as student evaluations.

d. On the basis of the information gathered, the Academic Boards will jointly ensure periodic review, update, and improvement of the program.

### 15. Fiscal and enrollment impact and estimated budget

The program is not projected to have more than five students enrolled at a given time, and because it will function within the current M.S. program in Crop and Soil Sciences, there will be no additional cost to offer the dual degree program.

# Annex I - Requirements and Options for the Program of Study

The program of study shall include courses as follows:

Scientific Fields	UNIPD Student – Year 1 (at UNIPD)		UGA Student – Year 1 (at UGA)		
Scientific Fields	CFU	Courses	СН	Courses	
Crop production	14 CFU (7 Cr)	Sustainable Agriculture (8 CFU) Crop Physiology (6 CFU)	6 - 7 CH (two courses from the list on the right)	Principles of Sustainable Management – CRSS 4010/6010 (3 CH) Seed Technology – CRSS 4310/6310-4310L/6310L (3 CH) Weed Science – CRSS 4340/6340 (3 CH) Herbicide Technology – CRSS 4350/6350 (3 CH) Crop Physiology – CRSS 4450/6450 (3 CH) Plant Physiology – HORT(CRSS) 4430/6430 (3 CH) Adv. Topics Sust. Agric. – CRSS 8xxx (3 CH) Fruit Production – HORT 4020/6020-4020L/6020L (3 CH) Organic Agricultural Systems – HORT(CRSS) (ENTO)(PATH) 4125/6125 (4 CH) Environmental Physiology – HORT(CRSS) 4440/6440-4440L/6440L (4 CH) Advanced Plant Physiology – HORT 8104 (4 CH)	
Plant and animal breeding	8 CFU (4 Cr)	Plant Breeding (8 CFU)	3 CH (one course from the list on the right)	Plant Breeding – PBGG(CRSS)(HORT) 4140/6140 (3 CH) Agricultural Biotechnology – HORT(CRSS) 4800/6800 (3 CH)	
Soil sciences	6 CFU (3 Cr)	Biomass and Bioenergy Production (6 CFU)	3 - 4 CH (one course from the list on the right)	Pedology – CRSS(GEOL) 4540/6540-4540L/6540L (3 CH) Soil Erosion and Conservation. – CRSS 4580/6580 (3 CH) Soil Fertility and Plant Nutrition – CRSS(HORT)(ECOL) 4590/6590 (3 CH) Soil Microbiology – CRSS(MIBO) 4610/6610-4610L/6610L (3 CH) Soil Physics – CRSS 4600/6600 (3 CH) Environmental Soil Chemistry – CRSS 4670/6670 (3 CH) Soil Physical Chemistry – CRSS 8000 (3 CH) Advanced Soil Fertility – CRSS 8520 (3 CH) Soil Biology and Ecology – ECOL(CRSS) 8660-8660L (4 CH) Terrestrial Biogeochemical Cycling – PBIO(CRSS)(FORS)(ECOL) 8850- 8850L (4 CH)	
Plant pathology and entomology	6 CFU (3 Cr)	Integrated Mgmt. of Arthropods (6 CFU)	3 CH (one course)	Integrated Pest Management – ENTO(CRSS)(PATH) 4740/6740 (3 CH) Pesticides and Transgenic Crops – ENTO(CRSS)(PATH) 4250/6250 (3 CH)	

Scientific Fields	UNIPD Student – Year 1 (at UNIPD)		UGA Student – Year 1 (at UGA)		
Scientific Tields	CFU	Courses	СН	Courses	
Economics and management	8 CFU (4 Cr)	Agrifood Economics and Policy (8 CFU)	3 CH (one course from the list on the right)	Production Economics: Theory with Applications – AAEC 4210/6210 (3 CH) Environmental Economics – ENVM 4650/6650 (3 CH)	
Engineering and technology	8 CFU (4 Cr)	Precision Farming (8 CFU)	3 Cr (one course from the list on the right)	Sensors in Precision Agriculture – CRSS 4030/6030-4030L/6030L (3 CH) Improving Nutrient and Energy Efficiency with Geographic Information Systems – CRSS 4050/6050 (4 CH) Advanced Topics in Precision Agriculture – CRSS 4060/6060-4060L/6060L (3 CH) Remote Sensing of Environment – GEOG 4350/6350-4350L/6350L (3 CH) Geographic Information Science – GEOG 4370/6370-4370L/6370L (3 CH) GIS Applications in Agriculture – GEOG(CRSS) 4375/6375 (4 CH) Advanced Remote Sensing and Geospatial Techniques – GEOG 8350 (3 CH) Measurement and Control in Plant and Soil Science – HORT 8160 (3 CH)	
Statistics	8 CFU (4 Cr)	Advanced Statistics (8 CFU)	3 - 4 CH (one course from the list on the right)	Introduction to Statistical Methods I – STAT 6210 (3 CH) Introduction to Statistical Methods II – STAT 6220 (3 CH) Statistical Methods for Researchers – STAT 6315 (4 CH) Experimental Methods in Forestry and Natural Resources Research – FANR 6750-6750D (4 CH) Design of Experiments for Research Workers – STAT 8200 (3 CH) Introductory Spatial Analysis – GEOG 4300/6300 (3 CH)	
	2 CFU (1 Cr)	Thesis Research (6 CFU)	6 Cr	Master's Research – CRSS 7000 (6 CH)	
			3 Cr	Master's Thesis – CRSS 7300 (3 CH)	
			1 Cr	Advanced Crop and Soil Science Seminar – CRSS 8100 (1 CH)	
Total Year 1	60 CFU (30 Cr)		31-34 Cr (62 CFU)		

Scientific Fields		UNIPD Student – Year 2 (at UGA)	UGA Student – Year 2 (at UNIPD)		
Scientine Fields	CFU	Courses	СН	Courses	
Complementary fields	3 cr (6 CFU) (one course from the list on the right)	The Anthropology of Conservation – ANTH 4085/6085 (3 CH) Foundations of Ecological Anthropology – ANTH 6490 (3 CH) Ecology of Food, Diet, and Nutrition – ANTH 4580/6580-4580L/6580L (3 CH) Field Methods – ANTH 4630/6630 (3 CH) Seminar in Ecological Anthropology – ANTH 8500 (3 CH) Cultural Dimensions of Biodiversity – ANTH 8520 (3 CH) Conservation and Community – ANTH 8540 (3 CH) Social Issues Sust. Agric. – CRSS 6010 (3 CH)* Principles of Conservation Ecology and Sustainable Development I – ECOL 6080 (4 CH) Perspectives on Conservation Ecology and Sustainable Development – ECOL(ICON) 8400 (2 CH) Environmental Economics – ENVM 4650/6650 (3 CH) Natural Resource and Environmental Economics I – FANR(AAEC) 7860 (3 CH) Advanced Economic Geography – GEOG 4620/6620 (3 CH) Conservation Ecology and Resource Management – GEOG 4810/6810 (3 CH) The Industrial Agro-Food System and Its Alternatives – GEOG 4860/6860 (3 CH)	6 CFU (3 Cr) (one course from all the lists above or from the list on the right)	Soil and Water Resources Mgmt. (6 CFU) Water and Soil Bioremediation (6 CFU) Viticulture (6 CFU) Livestock Biodiversity and Animal Food Safety (6 CFU) Sustainable Disease Mgmt. (6 CFU)	
Electives (one course)	4 Cr (8 CFU)	Elective course at UGA (not Seminar/ Master's Research/ Master's Thesis)	8 CFU (4 Cr)	Elective course at UNIPD (not practical activities/thesis research)	
	1 Cr (2 CFU)	Advanced Crop and Soil Science Seminar – CRSS 8100			
	3 Cr (6 CFU)	Master's Thesis – CRSS 7300	6 CFU (3 Cr)	Practical activities	
	19 Cr (38 CFU)	Master's Research – CRSS 7000	38 CFU (19 Cr)	Thesis research	
Total Year 2	60 CFU (30 Cr)		29 Cr (58 CFU)		
TOTAL Years 1 and 2	120 CFU (60 Cr)		60-64 Cr (120 CFU)		

\*Course does not exist in CAPA.

Scientific Fields	UNIPD Student		UGA Student		
	CFU	Courses	Cr	Courses	
Crop Production	14 CFU	Sustainable Agriculture (8 CFU) Crop Physiology (6 CFU)	6 Cr	Crop Physiology – CRSS 4450/6450 (3 cr) Principles of Sustainable Management - CRSS 4010/6010 (3 cr)	
Plant/Animal Breeding	8 CFU	Plant Breeding (8 CFU)	3 Cr	Plant Breeding - PBGG(CRSS)(HORT) 4140/6140 (3 cr)	
Soil Sciences	6 CFU	Biomass and Bioenergy Production (6 CFU)	3 Cr	Soil Erosion and Conservation – CRSS 4580/6580 (3 cr)	
Plant Path and Entomology	6 CFU	Integrated Mgmt. of Arthropods (6 CFU)	3 Cr	Integrated Pest Management- ENTO(CRSS)(PATH) 4740/6740 (3 cr)	
Economics and Management	8 CFU	Agrifood Economics and Policy (8 CFU)	3 Cr	Production Economics: Theory with Applications - AAEC 4210/6210 (3 cr)	
Engineering Technology	8 CFU	Precision Farming (8 CFU)	3 Cr	Advanced Topics in Precision Agriculture – CRSS 4060/6060-4060L/6060L (3 cr)	
Statistics	8 CFU	Advanced statistics (8 CFU)	4 Cr	Statistical Methods for Researchers – STAT 6315 (4 cr)	
Complementary	6 CFU	Social Issues Sust. Agric. – CRSS 6020* (3 Cr, 6 CFU)	3 Cr	Sustainable Disease Mgmt. (6 CFU, 3 Cr)	
Electives	6 CFU	GIS Applications in Agriculture – GEOG(CRSS) 4375/6375 (4 Cr, 6 CFU)	3 Cr	Elective course at UNIPD (8 CFU, 4 Cr)	
	2 CFU	Advanced Crop and Soil Science Seminar – CRSS 8100 (1 cr)	1 Cr	Advanced Crop and Soil Science Seminar – CRSS 8100 (1 cr)	
	6 CFU	Practical activities at UNIPD	22 Cr	Practical activities at UNIPD	
Thesis Research	36 CFU	Master's Research – CRSS 7000	6 Cr	Master's Research - CRSS 7000	
Thesis Writing	6 CFU	Master's Thesis – CRSS 7300	3 Cr	Master's Thesis – CRSS 7300 (3 cr)	
TOTAL	120 CFU		63 Cr		

\*Course does not exist in CAPA.

#### **CO-OPERATION AGREEMENT FOR THE IMPLEMENTATION OF**

## A DUAL MASTER OF SCIENCE DEGREE PROGRAMME WITH AN EMPHASIS IN SUSTAINABLE AGRICULTURE

#### BETWEEN

### UNIVERSITÀ DEGLI STUDI DI PADOVA, ITALY

#### AND

#### THE UNIVERSITY OF GEORGIA, USA

#### Introduction

Guided by the desire to strengthen the already existing relationships and bearing in mind the common objective of establishing a cooperative academic framework that supports the purpose of the European Higher Education and Research Area and the mission of the University of Georgia, Università degli Studi di Padova, Italy, hereinafter referred to as UNIPD, with legal address in via VIII Febbraio 1848, 2, 35122 Padova-Italia, represented by its Rector Prof. Giuseppe Zaccaria, and the University of Georgia, hereinafter referred to as UGA with legal address 220 South Jackson Street, Athens, GA 30602-1661, United States of America, represented by its President Prof. Jere Morehead, JD.

#### AGREE

to implement a Dual Master's Degree Programme in the field of Crop and Soil Sciences with an area of emphasis in Sustainable Agriculture.

#### Article 1. Rationale for the Programme

One of the great challenges facing humanity is its enduring quest for sustainable food production systems. A sustainable agriculture system must ensure farm profitability and income stability with fewer farming inputs while simultaneously enhancing crop quality, improving soil health, water availability and quality, and reducing greenhouse emissions. The need to improve nutrient efficiency and recycling in agriculture has become evident with the realization that geologic deposits of nutrients such as phosphorus and potassium are likely to be exhausted within a few generations. Furthermore, water for irrigation is becoming scarce in many regions of the world, and water for human consumption is being contaminated by organic and inorganic compounds transported from agricultural and industrial fields. Additionally, crop production in many regions of the world is being threatened by the development of herbicide-resistant weeds and chemical-resistant insects and pathogens. Addressing all of these challenges will require research to develop new technologies and adaptive management systems for nutrient and water recycling, building soil health, and integrating biodiversity into weed, insect, and disease control. These new or modified technologies must also be resilient and able to adapt to climate uncertainties while building some certainty in food security.

Research efforts to accomplish these objectives will require increased international cooperation among scientists to accelerate and increase scientific achievements. It is with this background and motivation that UNIPD (Italy) and UGA (USA) propose to establish a dual Master of Science (M.S.) degree program with an emphasis in "Sustainable Agriculture" in which students will spend one year in Italy and one year in the USA to complete course and research requirements.

This program will give students from both countries an international research perspective in their areas of interest, an opportunity to improve their critical thinking skills by analysing data from international projects, and an international appreciation for cultural diversity. In addition, the program will improve ties between faculty members of both institutions, which will likely result in additional collaborative research opportunities in sustainable agriculture.

Upon successful completion of the Dual Degree Programme, students shall be awarded M.S. Degrees by UNIPD and UGA as defined below. Each M.S. Degree will fulfill the requirements of the institution that awards it.

## Article 2. Legal framework and national qualifications

UGA and UNIPD undertake to offer a M.S. programme on the subject of Sustainable Agriculture, which corresponds to a second level degree course.

The Italian D.M. 47/2013 allows Italian Higher Education Institutions to develop joint study Programmes in cooperation with other Italian and non-Italian institutions.

The Board of Regents of the University System of Georgia allows institutions of Higher Education in Georgia to develop joint study programs in cooperation with other national and international institutions.

Upon successful completion of the Programme, the students shall be awarded the following degrees:

- 1. In Italy: Laurea Magistrale (Master's Degree) in Sustainable Agriculture, Classe LM-69, D.M. 16/03/2007. According to the Bologna Process rules and recommendations and the Italian legislation, this degree corresponds to a second cycle degree D.M. 270/2004, Master level (120 ECTS credits), giving access to "Dottorato di ricerca", a third cycle degree equivalent to a PhD level in Europe.
- 2. In the USA: Master of Science Degree in Crop and Soil Sciences with area of emphasis in Sustainable Agriculture. This degree, approved by the Board of Regents of the University of Georgia on 11/05/2007, prepares the student for entrance into a Ph.D. level program.

## **Article 3. Academic Boards**

Each institution will appoint an Academic Board composed of three academically qualified faculty members to oversee administration of the program and ensure it meets institutional requirements for governance and quality. The Academic Boards will have the following functions:

- 1. Select students for the programme
- 2. Handle student petitions according to the procedures of their institution
- 3. Participate in conflict resolution
- 4. Review, update, and improve the programme in accord with procedures specified in Article 13.

## Article 4. Structure of the programme and student exchange plan

Studies leading to both degrees shall last two years, totalling 120 CFU at UNIPD and a minimum of 30 CH at UGA. The students will spend their first year at the home institution taking courses and the second year at the host institution conducting primarily research with some course work.

- 1. The language of instruction at both partner institutions will be English.
- 2. The programme of study for students of both institutions is defined in Annex I. If substantial changes occur in the study program of either partner institution, Annex I may be amended before the beginning of each academic year.
- 3. Students must obtain a minimum of 50 CFU = 25 CH at the host institution according to Annex I.
- 4. Students must prepare, present, and defend a final thesis, as specified in Article 8.
- 5. The host Institution will appoint a tutor (major professor) for each student for the duration of the study period.

## Article 5. Admission requirements

To be admitted into the Dual Degree Program, incoming students must meet all admission requirements and procedures of both institutions.

## Article 6. Student selection process

Each institution may recruit up to 5 students per academic year. The selection of students is based on shared responsibility between both parties, as follows:

- 1. The Academic Board of the home institution makes preliminary selection of candidates and forwards applications to the host institution for processing according to normal admissions procedures.
  - a. The criteria for selection will be based on academic records and motivation. Knowledge of the language of the country of the host Institution may be considered an advantage.
  - b. Care will be taken by both Academic Boards to select only those students with high potential to complete their Dual Degree studies
- 2. Following host institution acceptance, the student will be admitted into the Dual Degree Programme.

## Article 7. Transfer of credit and grade conversion.

Passing grades and exam policies are exclusively those of the local institution that offers the course.

- 1. Courses transferred between the institutions must have minimum grades of B or equivalent.
- There will be no delay for the Dual Degree Programme courses to be transferred, i.e., the courses will be transferred to the partner institution as soon as the grades in the granting institution are posted. A transcript will be sent to the partner.
- 3. Credit for courses transferred between institutions will be transcripted according to the policies and procedures at the receiving institution.
- 4. Conversion of course credits will be done according to the equivalence: 1 CFU = 0.5 CH
- 5. At UNIPD, conversion of examinations' grades will be based on the ECTS scale related to the second-level degree course of Classe LM-69 (according to the annual statistical analysis).
- 6. At UGA, conversion of examinations' grades will be based on the International Grade Conversion Guide for Higher Education provided by World Education Services (<u>www.wes.org/gradeconversionguide/</u>).

## Article 8. Master Thesis

With the purpose of strengthening the scientific cooperation between both institutions, the thesis will address, whenever possible, problems in areas of common interest to the two institutions.

- 1. The thesis committee shall include members from both institutions.
- 2. Whenever possible, the thesis will be co-supervised by a professor or researcher from each institution.
- 3. The thesis defense will take place at the host institution at the end of the second year of studies. Members of the thesis committee from the home institution will participate through videoconference when possible. The defense will follow the local rules of evaluation and the results will be fully and automatically recognized by both institutions.
- 4. The thesis shall be written in English.

## Article 9. Extension of the mobility period

If a student does not complete the expected study plan within his/her mobility year, the Academic Boards of both institutions will jointly decide whether to grant an extension or not.

## Article 10. Enrollment, tuition fees, insurance, and services to students

- 1. The home Institution shall ensure that students have the necessary valid insurance policies before their departure to the host institution.
- 2. Students are responsible for all their travel, accommodation, and living expenses.
- 3. Tuition fees:
  - UNIPD students may apply for assistantships offered by UGA in order to receive financial aid during the term in USA. Students on assistantship are expected to work an average of 16 hours per week over and beyond the work required to earn credits. Students on assistantship receive a salary, a full waiver of out-of-state tuition fees, and a partial in-state tuition waiver. During the mobility period, they will pay regular tuition fees to their home institution.
  - UGA students will receive a full tuition waiver at UNIPD, but they will be still charged non-university fees (regional fees and insurance). UNIPD shall endeavour to provide scholarships for UGA students, either through European Programmes or internal resources.

## Article 11. Recognition Mechanism and Final Degree

Upon successful completion of the dual degree programme (including a successful defense of the thesis) as defined in the present agreement and validated by the Academic Boards of both institutions, students will be awarded degrees from UNIPD and UGA as specified in Article 2. UNIPD will also issue a Diploma Supplement describing the Dual Degree Programme.

## Article 12. Cooperation aspects and monitoring

Both parties agree to a regular exchange of information and transparent administrative procedures. The parties agree to send the required documentation of students taking part in the programme to the partner institution.

- 1. Each partner should appoint a *local academic coordinator* who will be responsible for ensuring that all requirements of the home institutions are met.
- 2. In addition, the *local academic coordinators* from each institution will meet either in person or via videoconference on a regular basis in order to:
  - Assess the pertinence of the teaching programmes in both institutions.
  - Report on the cooperation and the academic results of the students.
  - Propose new initiatives.

## Article 13. Quality assurance

The quality of the program will be evaluated by external and internal procedures.

- 1. The Partner Institutions are part of their respective state or national university systems, and as a consequence their academic programs are evaluated on a regular basis by external certified bodies.
- 2. Each institution will ensure that academically qualified faculty are responsible for academic instruction and supervision of research in the program.
- 3. An Internal Quality Assurance Protocol will be established and managed jointly by both Partners to ensure the continued quality of the Dual Degree Programme. This protocol will include an assessment of learning outcomes as well as student evaluations. On the basis of the information gathered, the Academic Boards will jointly ensure periodic review, update, and improvement of the programme.

## Article 14. Promotion of the programme

The promotion of the programme is the responsibility of both parties. Each member institution agrees to the use of its name and logo for the purposes of promotional material, programme literature, and other documentation of the programme.

Promotional materials used by UNIPD should include the following disclaimer regarding UGA's accreditation

by the Southern Association of Colleges and Schools Commission on Colleges:

"UGA is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, specialist, and doctoral degrees. UNIPD is not accredited by SACS Commission on Colleges and the accreditation of UGA does not extend to or include UNIPD or its students. Further, although UGA agrees to accept certain coursework from UNIPD to be applied toward an award from UGA, that course work may not be accepted by other colleges of universities in transfer, even if it appears on a transcript from UGA. The decision to accept course work in transfer from any institution is made by the institution considering the acceptance of credits or course work".

Both parties shall make all possible efforts to secure extramural financial support for the programme.

### Article 15. Financial obligations

No financial obligations shall arise out of this agreement for either party.

### Article 16. Conflict Resolution

The parties shall resolve any controversy arising from the interpretation of these terms and conditions by mutual agreement.

### Article 17. General Provisions

The present agreement will take effect after the signature by the legal representative of both contracting parties and will be valid for 5 years.

This agreement may be amended by mutual consent following the same procedure that has been followed for the first signature.

All modifications to the agreements must be in writing and signed by both parties. Either party giving sixmonth written notice to the other party may terminate this agreement provided that such termination will not affect the completion of any activity underway at the time. In the event of the agreement being terminated, any activities in progress shall be run to completion and both parties must ensure that enrolled students can complete the Dual Degree Programme.

#### Article 18

Two originals of the present agreement shall be signed, one for each of the signatories of the contract. Each original shall have equal validity.

Date

For the Università degli Studi di Padova,

For the University of Georgia)

The Rector

President

Prof. Giuseppe Zaccaria

Prof. Jere Morehead



UNIVERSITÀ DECLI STUDI DI PADOVA

To the University of Georgia USA

via VIII febbraio, 2 35122 Padova tel +39 049 8273054 fax +39 049 8273917 relazioni.internazionali@unipd.it CF 80006480281 P.IVA 00742430283

Padova, 1<sup>st</sup> September 2015

### TO WHOM IT MAY CONCERN

Subject: Support Letter for the implementation of a Double Degree Programme in "Sustainable agriculture" between the University of Padova, Italy, and University of Georgia, USA.

The University of Padova, in the person of the Vice Rector for International Relations, Professor Alessandro Martin, taking into consideration its interests in cooperation and being convinced in mutual advantage of this cooperation, as a result of the meetings held in Padova on 29<sup>th</sup> January 2015 and on 19<sup>th</sup> June 2015, decided to proceed with this letter of support.

In order to promote and strengthen the existing cooperation between the Parties and their international dimension, so as to make their academic offer more attractive, the University of Padova encourages the implementation of a *Double Degree Program* in the field of Sustainable Agriculture: the proposed programme will represent an extraordinary opportunity for students involved, having international content, orientation and organization jointly defined by the parties.

A specific agreement to be signed by the Parties will define terms and conditions for the implementation of the above mentioned programme.



#### DIPARTIMENTO DI AGRONOMIA ANIMALI ALIMENTI RISORSE NATURALI E AMBIENTE DAFNAE DEPARTMENT OF AGRONOMY FOOD NATURAL RESOURCES ANIMALS AND ENVIRONMENT



UNIVERSITÀ DECLI STUDI DI PADOVA

Viale dell'Università 16 35020 Legnaro (Padova) - Italy tel +39 049 8272864 fax +39 049 8272784 direzione.dafnae@unipd.it dipartimento.dafnae@pec.unipd.it GF 80006480281 P.IVA 00742430283 To the University of Georgia USA

Legnaro (Padova), 1st September 2015 Prot. n. 2007 del 02/09/2015 Anno 2015 Tit. III Cl. 18 Fasc. 1

### TO WHOM IT MAY CONCERN

**SUBJECT:** Support letter for the implementation of a Dual Master's Degree Programme in the field of Crop and Soil Sciences with an area of emphasis in Sustainable Agriculture between the University of Padova, Italy, and the University of Georgia, USA

It is with great pleasure that I express support for the proposal of implementing a Dual Master's Degree Programme in the field of Crop and Soil Sciences with an area of emphasis in Sustainable Agriculture, in cooperation with the University of Georgia's Department of Crop and Soil Sciences.

Students participating to the programme will spend one year in Italy and one year in the USA to complete course and research requirements. Upon successful completion of the programme they shall be awarded Master's Degrees by University of Padova and University of Georgia.

The University of Padova's Department of Agronomy Food natural Resources Animals and Environment is committed to its internationalization and is guided by the desire to improve the already existing relationships with our partners at the University of Georgia.

I am convinced that the programme will provide important international mobility opportunities for students from both Universities, giving them a wider research perspective in their areas of interest. Moreover it will offer the possibility to strengthen the ties between our faculty members, which will increase collaborative research chance.

I look forward to continuing the collaboration with our partners at the University of Georgia to ensure the success of the project.

Sincerely,

The Head of Department Prof. Maurizio Borin



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