

Curriculum for the Programme “Joint International Master’s Programme in Sustainable Development”

Approved by the Senate of the University of Graz, Austria on -
Approved by the Senate of Ca’ Foscari University Venice, Italy on -
Approved by the Senate of Leipzig University, Germany on -
Approved by the Board of the Faculty of Geosciences of Utrecht University, The Netherlands on -

Introductory Section

Since the global environmental conferences in Rio de Janeiro in 1992 sustainable development – namely development that is environmentally accountable – has become an internationally recognised principle that many nations are now committed to achieve. The main ways they are doing so are, for instance, by recycling materials, using natural resources prudently, making consumption patterns more environmentally accountable, stimulating corporate social responsibility, and paying attention to the quality of the built environment. Sustainable development is the expression of a desire to attune economic and social development to the carrying capacity of the physical environment everywhere, now and in the future.

The issue of sustainable development has high priority on the international political and scientific agenda. It is also a cross-boundary issue, since any problem derived from the relation between the environment and development will not stop at a country’s borders. The concept of ‘sustainable development’ has far-reaching significance. There is an international obligation to carefully weigh the benefits of economic and social development against the costs to the environment. A suitable way to address this question is to present it to talented students in an international setting. The master’s programme in Sustainable Development is a prime example of a program where sustainability issues are approached from an inter-disciplinary perspective. The focus is set on applying the competences to the question of sustainable development and the needs and possibilities of societal transformation. It combines the strengths and specializations in teaching and top research of eight partner universities, thereby offering the students a program recognized in the countries of the consortium partners and the possibility of going on to PhD-studies as well as increasing the employability in the private, public and semi-public sector.

§ 1 General Regulations

The curriculum for the master’s programme has been designed jointly by eight partner universities, i.e. University of Graz, Ca’ Foscari University Venice, Leipzig University, Utrecht University, Basel University, Hiroshima University, Stellenbosch University and TERI University, under the auspices of the University of Graz, Austria.

(1) Status of Co-operation Partners

The following eight universities have jointly developed an “Joint International Master’s Programme in Sustainable Development”

- **Karl-Franzens-University Graz** (Austria, coordinating university), represented by Ao.Univ.-Prof. Alfred Posch (academic representative), Institute of Systems Sciences, Innovation and Sustainable Research, Merangasse 18, A-8010 Graz,
- **Ca’ Foscari University Venice** (Italy), represented by Prof. Roberto Pastres (academic representative), Department of Environmental Sciences, Informatics and Statistics, Dorsoduro 2137 – 30123 Venezia,
- **Leipzig University** (Germany), represented by Prof. Robert Holländer (academic representative), Faculty of Economics and Business Management, Institute for Infrastructure and Resources Management, Grimmaische Strasse 12, 04109 Leipzig,

- **Utrecht University** (The Netherlands), represented by Dr. Walter Vermeulen (academic representative), programme leader of the master's programme Sustainable Development, Faculty of Geosciences, P.O. Box 80115, 3508 TC Utrecht.
- **Basel University** (Switzerland), represented by Prof. Dr. phil. Paul Burger (academic representative), Department for Social Sciences, Sustainability Research, Klingelbergstrasse 50, CH-4056 Basel,
- **Hiroshima University** (Japan), represented by Prof. Takao Yamashita (academic representative), Graduate School for International Development and Cooperation, 1-5-1 Kagamiyama, Higashi-Hiroshima, 739-8529,
- **Stellenbosch University** (South Africa), represented by Prof. Alan Brent (academic representative), School of Public Leadership, Sustainability Institute, R310 Baden Powell Drive, PO Box 162 Lynedoch, 7603 Stellenbosch,
- **TERI University** (India), represented by Prof. M V Shiju (academic representative), Department of Policy Studies, Institutional Area, Vasant Kunj, New Delhi – 110 070.

(1.1) Degree Awarding Partners

Of the eight partners involved in developing the programme the following four universities constitute the "Degree Awarding Partners":

- **Karl-Franzens-University Graz** (Austria), legal representative: Univ.-Prof. Dr. Christa Neuper, Rector
- **Ca' Foscari University Venice** (Italy), legal representative: Prof. Carlo Carraro, Rector,
- **Leipzig University** (Germany), legal representative: Prof. Dr. med. Beate Schücking, President
- **Utrecht University** (The Netherlands), legal representative: Ronald van Kempen, Dean of the Faculty of Geosciences
who confer a degree.

(Compare Cooperation Contract, § 2)

(1.2) – Non-Degree Awarding Partners - Mobility Partners

The following universities are partners in terms of mobility

- **Basel University** (Switzerland), legal representative: Prof. Dr. Claudia Opitz-Belakhal, Dean of the *Philosophisch-Historische Fakultät*,
- **Hiroshima University** (Japan), legal representative: Prof. Toshimasa Asahara, President,
- **Stellenbosch University** (South Africa), legal representative: Prof. Eugene Cloete, Vice Rector (Research),
- **TERI University** (India), legal representative: Gp. Capt. Rajiv Seth (Retd.), PhD, Registrar.

For details refer to the contracts between the mobility universities and the consortium.

(Compare Cooperation Contract, § 2)

(2) Aim of the Joint International Master's Programme in Sustainable Development

The mission of the "Joint International Master's Programme in Sustainable Development" is to provide an international and interdisciplinary master's programme of highest quality which enables participants to substantially contribute to the challenge of the transition of society towards sustainability. The master's programme places a strong emphasis on research as well as on intervention strategies, promotes the capability for scientific work, and in particular a methodically correct approach to problem solving, especially in inter- and transdisciplinary settings.

The master's programme prepares students for a Ph.D. study, ultimately leading to professions in scientific research. The societal orientation of the master's programme makes it also a good starting point for positions that do not directly involve scientific research. Graduates might find employment in the private sector, the public sector (EU, national, regional, and local government), consultancy firms, and NGOs. In the course of their career, the graduates should be able to fill managerial positions, notably with respect to the integration of knowledge and policy and in the field of change management (particularly of complex processes of societal change).

(2.1) Educational Goals:

According to the Dublin Descriptors the Master's degree will be awarded to students who

- understand the dynamics, complexity and interaction between natural, social and economic processes and systems in regard of sustainable development
- are able to analyse topics within the field of sustainable development by taking into consideration different disciplinary perspectives
- have comprehensive competences in a scientific perspective
- know and are able to use adequate working methods and instruments for scientific research and application
- are able to apply their knowledge and scientific skills in inter- and trans-disciplinary teams on complex issues, possess the according social skills, such as writing, debating, conflict management, teamwork, project management and thus will be able to make a substantial contribution to the transition to a sustainable society
- are able to do independent scientific research and put the results of a scientific investigation in the form of a scientific article or a similar kind of publication

(2.2) Scientific Perspectives

Different specialisation perspectives are offered by the partner universities. Within each perspective, the allocation to the perspective and thus the possible specialisation of the students depends on their specific undergraduate education (see track descriptions in Annex 1).

(2.3) Professional Fields: Relevance of the Programme for the Labour Market and further Academic Study

Professional fields for which competences are developed are strongly determined by the specialisation track chosen definitely including the academic, private, public, and semi-public sector. Typical occupational fields for graduates are.

- Business Management
 - Consulting
 - Environmental Entrepreneurship
 - Environment, health and safety
 - Quality Management
 - Regional and urban planning
 - Innovation Management
 - International Organisations
 - Scientific Research
 - Training and (continuing) education
- (Fields above are ordered alphabetically not by priority.)

(3) Duration of the Programme

Students are allocated ECTS credit points for the work done, which includes both self-study and contact hours. The master's programme comprises 120 ECTS credits, which corresponds to a

minimum period of study of four semesters or two years, per the respective regulations governing the partner institutions.

At least 60 ECTS credits including the thesis have to be earned at the entrance university. Students are required to complete at least 30 ECTS credits at one of the partner universities.

(4) Academic Degree

1. Upon completion of the joint master's programme the students are awarded a "Joint Master's Degree in Sustainable Development". The respective equivalents are as follows:

- **Karl-Franzens-University Graz** (Austria): Master of Science, MSc
- **Leipzig University** (Germany): Master of Science, MSc
- **Ca' Foscari University Venice** (Italy): Laurea magistrale, LM
- **Utrecht University** (The Netherlands): Master of Science, MSc

A **joint degree** is awarded by University of Graz and Leipzig University after fulfilment of the respective legal prerequisites.

2. Notwithstanding subsection 1, a **double degree** is awarded by Utrecht University and Ca'Foscari University Venice after the fulfilment of the respective legal prerequisites (see Annex 4).

(5) Formal Modes of Study

These modes of study include lectures, seminars, tutorials, practical courses and other forms, per the respective regulations governing the partner institutions.

University of Graz: Statutes of the Legal Regulations on University Studies (*Satzungsteil Studienrechtliche Bestimmungen*) §1 (3)

Ca' Foscari University Venice: DM (Ministerial Decree) n. 270/2004; Ca' Foscari University Regulations of Studies.

Leipzig University: Legal Regulations on Higher Education in Saxony (*Sächsisches Hochschulgesetz – SächsHG*) from June 11, 1999 (*SächsGVBl. pp. 294*), § 21 Requirements for Course Regulations and § 24 Requirements for Examination Regulations

Utrecht University: Act on Higher Education and Scientific Research; Richtlijn Onderwijs Universiteit Utrecht, 2006.

Basel University: Ordnung für das Masterstudium «Sustainable Development» an der Philosophisch-Historischen, der Philosophisch-Naturwissenschaftlichen und der Wirtschaftswissenschaftlichen Fakultät der Universität Basel Vom Universitätsrat genehmigt am 22. September 2005.

Hiroshima University: School Education Law, National Standards for the Establishment of Universities, National Standards for the Establishment of Graduate Schools, Hiroshima University General Rules.

Stellenbosch University: a higher education institution established in terms of the Higher Education Act, 1997 (Act No. 101 of 1997) herein represented by the School of Public Leadership, Faculty of Economic and Management Sciences.

TERI University : The University Grants Commission Act, 1956; UGC (Institutions Deemed to be Universities)Regulation, 2010; and the Rules of Regulations of TERI University.

(6) Limitation of Places in Courses

Limitations on the number of participants in the individual types of classes may apply for educational and/or safety reasons, and shall be determined per the respective regulations governing the partner institutions.

(7) Teaching and Learning Methods

In addition to regular classes at the partner universities, jointly prepared forms of supplementary teaching (e.g. summer or winter schools, intensive programmes) can be used to complete the Joint Programme and may be counted towards the 30 ECTS credits requirement.

(8) Target Group and Admission

The target group for the participation in the “Joint International Master’s Programme in Sustainable Development” are highly qualified and motivated students interested in the issue of sustainable development and especially the international dimension of sustainability issues. Moreover, they should be willing and able to analyse and evaluate complex processes from the interdisciplinary perspective.

Any student who is interested in taking the master’s program has to go through an admission procedure (Compare Cooperation Contract, § 6). The Selection Committee plays a key role in that procedure. The deadlines for submitting applications for admission are announced each year on the programme website (www.jointdegree.eu/sd).

General conditions for admission

Sustainable development is an inter-disciplinary field, and research on that subject requires an inter-disciplinary attitude. For this reason, the Joint International Master’s Programme in Sustainable Development welcomes individuals holding an academic degree of at least 180 ECTS credits (bachelor’s degree or equivalent programme of at least 180 ECTS) who can demonstrate their research skills, their basic knowledge of the natural and/or social sciences, and a general insight in the subject of sustainable development and intervention strategies. In the selection of the tracks students need to consider the prior knowledge as stated in the track description. A suitable preparation for natural science tracks might include courses in physics, chemistry, geology, science & innovation management, technical sciences, biology, geography, or earth sciences. And for the social science tracks, the prospective student might have had courses in business management, human geography, planning, sociology, policy sciences, law, or economics.

Graduates from different forms and fields of studies can be admitted if the completed programme is judged to be equivalent in the regular admission procedure of the university for which the student applies.

The decision will be based largely on the kind of prior education (applicants have to demonstrate research skills, basic knowledge of social and/or natural sciences and general insights in the subject of sustainable development and intervention strategies), including the student's minor or optional course profile, the personal motivation, recommendations of former teachers and English language skills.

English

Because large parts of the programme, especially the specialization tracks chosen for the mobility semester, are conducted in English, the Selection Committee requires proof of the applicant’s proficiency in English. The applicant must submit an *original* and recent certificate of IELTS (International English Language Testing System), academic module. The minimum IELTS score required is an Overall Band Score of 6.5 and no less than 6.0 in the writing section, TOEFL (Test of English as a Foreign Language). The minimum required TOEFL score is 93 (internet-based).), Cambridge EFL (English as a Foreign Language) Examinations, presenting one of the following certificates: Cambridge Certificate in Advanced English; minimum score B. - Cambridge Certificate of Proficiency in English; minimum score C.

English-native-speaking applicants and those who successfully completed an English-taught bachelor programme do not have to take this test.

Selection results

The decision of the Selection Committee will be send by letter to the applicant. A letter of admission remains valid for one year.

§ 2 Structure of the Programme

		ECTS	Sem.
Compulsory subjects	Basics in Sustainable Development	30 ECTS	1
Restricted electives	Specialisation Tracks (can be chosen from following)	30 ECTS	2
	<ul style="list-style-type: none">○ Energy & Resources (Utrecht)○ Environmental Assessment and Remediation Technology (Venice)○ Global Change and Ecosystems (Utrecht)○ Environmental Technology Management (Leipzig)○ Sustainable Management of Coastal Areas (Venice)○ Environmental Governance (Utrecht)○ Resources Management (Leipzig)○ Sustainability: The Social Dimension (Basel)○ Sustainable Business Management (Graz)○ Sust. Dev. Science & Technology (Hiroshima)○ Sust. Urban and Regional Development (Graz)○ Sustainable Development: From a Global to an African Context (Stellenbosch)○ Sustainable Development in the Indian Practice (TERI)		
Compuls. Subj. + Electives	Integration Module and further specialisation	30 ECTS	3
Master's thesis module		30 ECTS	4
	Master's thesis		
	Presentation and Defence		
		120 ECTS	

(1) Basics in Sustainable Development

See table in Annex 1

(2) Specialisation Tracks

See tables in Annex 1

(3) Integration Module

See table in Annex 1

(4) Master's theses module

The master theses module comprises 30 ECTS. The thesis reflects the student's capacity for independent study and research and should be written in English. The thesis must include a short summary both in English and in the local language of the entrance institution per the respective regulations governing the partner institutions.

The importance of a master's thesis

The master's thesis plays a central role in the master's programme. It is the most important part of the master's study. It is the proof of the student's mastery and academic development to a sufficient level. The thesis certifies that the graduates are qualified. It also guarantees that the final attainment levels of the master's have been met.

The master's thesis provides essential training. It involves a large number of academic activities: formulating a research objective and a research question after surveying the literature; sorting, interpreting, and synthesizing information; collecting/analyzing measurements/observations; and presenting verbal/written reports on the findings.

Master's thesis topic

Students must determine their master's thesis topic in consultation with a supervisor according to the regulations at the respective entrance university. Students have to write a proposal (including problem description, research goals and questions, research methods, theoretical perspective, expected outcomes, time schedule, bibliography) that has to be approved by the supervisor and a second reader (member of staff at a partner university selected by the supervisor).

It must be possible to finish the thesis within 6 months after the agreed starting time.

Internship

A research project generally takes place within one of the partner universities or at another research institute. Furthermore, students are offered the opportunity to carry out their MSc thesis research during an internship. They may be placed, for instance, in governmental organizations, research organizations, consultancy firms, NGOs, or companies.

At the start of the internship, the preconditions and content of the internship are clearly laid out. These arrangements are agreed upon by the student, the supervising instructor (person that will also be the academic supervisor of the master's thesis), and the host mentor (person of the internship organization that takes care of the student) in order to ensure that the internship will be a meaningful and enjoyable period for all parties. The reciprocal rights and duties should be arranged in an internship contract. Any arrangements between the student and the internship organization must be approved beforehand by the thesis supervisor.

Trainees are supervised by staff from both on of the partner universities and the host organization. On behalf of the host organization, supervision is provided by an internship mentor. This individual is primarily involved in the daily supervision (familiarizing the student with the organization, its working methods, objectives, and environment) as well as supervision at a more personal level (coaching). The main task of the university staff member is to monitor the scientific aspects of the research (its aim, research questions, methodology, content, and theoretical aspects).

The value of the thesis resulting from a research internship is equal to that of a 'normal' MSc thesis and thus must satisfy the same quality criteria.

Assessment

The final master's thesis is assessed by at least two staff members: the supervisor and a second reader (member of staff at a partner university selected by the advisor). The judgment of any other (external) supervisors who might be involved will be taken into consideration. In case of an internship, the university supervisor consults the internship mentor about the quality of the work done at the host organization.

If the supervisors and the second reader do not reach a consensus on the final grade, or if the student contests their decision, the final assessment is brought before the Programme Board. The Board makes a binding decision on the final evaluation of the thesis.

If a student fails, s/he has to start the master's thesis module again.

§ 3 Assessment

Assessment types, procedures and methods

Student achievement is assessed by a variety of methods including examination and written and oral work per the respective regulations governing the partner institutions. Criteria must be identified for students in the syllabus distributed at the beginning of a course.

Grading systems

Every university will use its own grading system. A conversion table will be provided (Annex 2). All consortium partners will provide a grade point average for students at the end of their studies.

Auditing and Evaluation

In order to maintain quality assurance across all aspects of the programme the members of each institution of the consortium will be asked regularly to monitor and audit samples of syllabi and student work from across the consortium. This will be one of the tasks of the annual meeting of representatives. The Programme Board is responsible for the overall management and quality assurance of the programme. Results of the quality assurance procedures have to be discussed by the Programme Board once a year. (Compare Annex 3 for the quality assurance procedures of all partner universities.)

The evaluation of courses will concentrate on objectives, content, didactic presentation and examination.

§ 4 Obligatory Mobility Semester

Students have to spend the specialisation track in the 2nd semester at a partner university, where all partner universities offer at least one track in English. When applying for the programme students will need to list their specialisation tracks in order of preference. Specialisation tracks offered by all partner universities are defined on a yearly basis by the Programme Board no later than September 30 of the precedent year.

Places are allocated by the Programme Board according to available resources.

Mobility students are exempt from registration fees and tuition fees at the mobility university.

All tracks of study may be pursued at the 4 degree awarding partners (entrance universities). If students choose to spend their mobility semester at a mobility partner, the modules listed in Annex 1 of the curriculum are fully recognized.

It is assumed that the general and specific university academic entrance requirements are satisfied upon nomination by the entrance institution.

§ 5 Additional Study Abroad

Students may apply to spend an additional study period at any of the partner universities, whether for a semester of registered coursework or for a short period of study for research reasons. It cannot be guaranteed that all courses are offered in English.

Financial subsidies can be applied for through existing mobility programmes and grants. However, resources are limited. Should additional fees apply they will be communicated via the programme website (www.jointdegree.eu/sd).

§ 6 Interim Regulations

Students who began their joint master's programme before the present curriculum came into effect are entitled to finish their studies by the end of **summer semester 2016**. Those students are also entitled to transfer into the present curriculum of the Joint International Master's Programme in **Sustainable Development**.

§ 7 Coming into Effect of the Curriculum

The present curriculum comes into effect at the eight partner universities mentioned above according to their commitment at the beginning of the academic year 2013/2014 following its approval by the respective responsible authorities. It replaces the Curriculum for the “International Joint Master’s Programme in Sustainable Development” which came into force with the academic year 2008/09.