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### **GENERAL INTRODUCTION**

Here is the collection of reports that map gender dimension in the existing research and curricula, conducted by the GARCIA project partners in the following countries: Belgium, Iceland, Italy, the Netherlands, Slovenia and Switzerland. The reports present qualitative and quantitative analyses of the research projects and curricula conducted during the year 2013 at two test departments – one from social sciences and humanities field (SSH) and the other from the field of science, technology, engineering and mathematics (STEM). The reports also include the analysis of the gender structure of the project teams, lecturers and students, if available.

The GARCIA project partners analysed the available data on the on-going research projects (e.g. a project outline, web presentation, project summary) and courses (e.g. a course description), focusing on five conceptual fields, namely: objectives, tasks, methodology, theoretical background and expected results. The attention was given to detecting both presence and absence of gender dimension in the content of research and teaching, meanwhile distinguishing between cases where gender is simply *not featured* and those where gender is *excluded*.

The comparison of these 12 departments revealed some common challenges both in terms of the integration of gender-related content into research and teaching, as well as in terms of the incorporation of gender dimension into organisational principles of an institution. When comparing the institutional and structural context of the test institutions, the first common challenge is the lack of a database on gender-related projects and courses. The second challenge is gender imbalance in teaching and research staff, which is also connected with the allocation of resources. STEM projects proved to be more often led by male researchers and usually lacking any gender dimension. At the same time, STEM institutions tend to obtain significantly more research funds than SSH ones. Further, the ratio of female STEM professors is significantly lower, while men are lacking in the research and teaching of gender-related topics.

When analysing the presence/absence of gender dimension in the content, it is noticeable that issues of gender are usually studied as "isolated topics" by (usually female) researchers who specialise in this specific subject. In most cases, incorporating gender into a research plan or syllabus is a matter of individual initiative and enthusiasm, not an institutional strategy. Furthermore, when a project outline or a course description mentions gender, it actually refers only to women. As far as STEM test institutions are concerned, there is virtually no gender-related topic in curricula or research contents. When analysing the presence of gender-sensitive methodology among the projects in the test institutions, we found that it is very rarely employed, and even when a methodological outline is presented as gender-sensitive, it sometimes turns out that gender-sensitive principles were either unsystematically applied throughout the project or that they were applied very narrowly. Bearing in mind that interdisciplinarity is one of the crucial means for introducing gender-related content, it is suggestive that it is very rarely practiced between STEM and SSH scientific fields. These mapping reports will give an insight into how gender dimension is present/absent in the contents, objectives, methodologies and results of the projects and courses at six European universities and research centres.

## 1 ITALY

### 1.1 INTRODUCTION

This report maps the Curricula and Research Projects with a gender dimension in the two departments of Trento University involved in the Garcia project: the STEM unit, the Information Engineering and Computer Science Department (DISI), and the SSH, the Sociology and Social Research Department (DSRS). The gender dimension was mapped according to its presence in the content description and to the participation

In reference to the Master curricula, the map was realized through a desk analysis of their webpages and of the guide books published for the 2013/4 academic year, which are available on the websites in PDF format:

- DISI: http://www.disi.unitn.it/education;
- DSRS: http://web.unitn.it/en/sociologia/28037/courses.

The contents of courses were analysed by checking several keywords in syllabus, bibliographies published on the webpages and on the "Esse3" online teaching platform for students. In this platform, several training course webpages contain also a link to the web community for students where further information about exams, bibliography and slides can be found.

We also administered a web-survey to all the teachers of the DISI and the DSRS departments, in order to have clearer information on the courses and interact with the teaching staff during the data collection. The survey aims is to ask professors whether a gender dimension is present in their courses but not explicitly mentioned in the syllabus. The web-survey was submitted by email, and was structured in two stages: the first was a filter question "yes/no", asking if the course presented any content related to gender. The button "yes" led to the second stage with other three questions:

- Which course presents gender-related contents?
- Are these contents explicit in the syllabus? Does the theoretical or methodological approach of the course consider gender theories or perspectives?

At the SSH department 48 emails were sent and 27 professors answered the survey. At the STEM department 43 emails were sent and 24 professors answered the survey. Their answers are reported in the "Mapping" section of the paper/report.

We also analysed the gender structure of Master Courses considering, on the one hand, the sex composition of students enrolled and of those who passed each training course test in the a.y. 2013/2014. On the other hand, we considered the sex composition of the teaching staff, both permanent and temporary.

<sup>&</sup>lt;sup>1</sup> Esse3 is an informatics system, which make available all information about curricula and training courses. It was introduced in 2002 and then developed on the basis of the changes introduced by the last university reforms and the new needs related to administrative and teaching issues. It is shaped on two user's profiles: teacher and student. Depending on the profile logged, it provides specific information about the plan of studies previously selected by the student, together with the syllabus of each course, the ECTS, the objectives and tasks and the bibliography.

<sup>&</sup>lt;sup>2</sup> We have asked to the Student and Teaching Service Office of the University of Trento the assignment of a student "standard profile" in order to access the web communities and check the bibliography that were not published in the main pages. Furthermore, the same office gave us the Excel file containing the syllabus of the training courses of each MS curriculum.

In reference to the research projects, we analysed contents and methodologies of all the projects active in 2013 at the DISI and DSRS departments, with the support of data collected by the administrative offices. We identified 166 projects in the DISI department and 39 at the DSRS department. We analysed the gender structure of these research projects considering the percentage of man and women involved as researchers, divided according to their organisational positions (permanent or temporary).

### 1.1.1 STEM department (DISI)

### 1.1.1.1 STEM department (DISI): analysis of curricula

The Masters at the DISI department are two:

- 1. Computer Science
- 2. Telecommunication and Engineering

## MS in Computer Science:

### Course presentation

The objective of the Master degree in Computer Science is to form professionals and researchers with both theoretical and practical knowledge. Theory and lab classes rotate during the all course of studies. This is the reason why the Computer Science graduates find a job quickly; this does not happen by chance but because Computer Science jobs are on the top 5 list of the most wanted specialists in Italy.

### **Learning outcomes**

The goal of the Master of Science in Computer Science is to provide students with the basic theoretical principles of computer sciences, to be able to acquire specific knowledge in the macro-areas close to software technologies, systems and networks, multimedia, embedded systems, safety and security engineering.

### **Course organization**

The Master of Science in Computer Science 2013/14 provides two curricula:

- Computer Science and Technology Curriculum (suited for students interested to improve their technical knowledge in computer science and ICT)
- ICT Innovation Curriculum (reserved to students who have passed the selection of the European Institute of Innovation and Technology of the ICT)

## 1st Year

Subject	Elective	ECTS
Advanced networking	Х	6
Area: Bioinformatics & Semantics	х	6
Area: Data Management	х	6
Area: Design and Engineering	х	6
Area: Embedded Systems	х	6
Area: Information Processing	х	6
Area: Internet Technology	х	6
Area: Security	х	6
Computability		6
Computational complexity	Х	6
Computer Supported Co-operative working	Х	6
Concurrency	Х	6
Data and information integration		6
Data and information integration	Х	6
Economics and Management		6
Formal methods	Х	12
Laboratory of biological data mining	Х	6
Laboratory of Business Process Management and integration	Х	6
Laboratory of embedded control systems	Х	6
Laboratory of Nomadic communications	Х	6
Logic	Х	6
Logics for data and knowledge representation		6
Logics for data and knowledge representation	Х	6
Machine learning	Х	6
Massive Data Analytics		6
Massive Data Analytics	х	6
Network security		6
Network security	х	6
Organizational information systems	х	6
Real time operating systems and middleware	Х	6
Requirement engineering	х	6
Security Engineering	х	6
Security Engineering		6
Security testing		6
Security testing	Х	6
Signals and systems	Х	6
Web architectures	х	6

# 2<sup>nd</sup> Ye<u>ar</u>

Subject		<b>ECTS</b>
Advanced digital design	Х	6
Advanced networking	Х	6
Advanced remote sensing systems for environment	Х	6
Agent-oriented software engineering	Х	6
Antennas for wireless communications	Х	9
Audio signal processing	Х	6
Business Development Laboratory	Х	9

Communications Systems I	х	6
Communication systems	Х	12
Computer Supported Co-operative working	Х	6
Computer Vision	х	6
Concurrency	Х	6
Cryptography	х	6
Data and information integration	Х	6
Data Hiding	Х	6
Design of Networks and Communication Systems	Х	6
Digital signal processing	Х	6
Distributed systems	Х	6
Economic and management	Х	6
Economics and Management	Х	6
Electromagnetic compatibility	Х	6
Electronics for telecommunications	Х	9
Electronic systems design	Х	6
Embedded electronic system	Х	9
Formal methods	Х	12
Formal Techniques for Cryptographic Protocol Analysis	Х	6
High-Throughput Methodologies 2: Data Analysis	Х	6
Image processing and transmission	Х	6
Introduction to Cell Biology	Х	9
Introduction to service design and engineering	Х	6
Laboratory of biological data mining	Х	6
Laboratory of Business Process Management and integration	Х	6
Laboratory of embedded control systems	Х	6
Laboratory of Nomadic communications	Х	6
Laboratory of Wireless sensor networks	Х	6
Laboratory of Wireless Sensor Networks	Х	6
Language Understanding Systems	Х	6
Logics for data and knowledge representation	Х	6
Machine learning	Х	6
Massive Data Analytics	Х	6
Mobile communications	Х	6
Modelling and Simulation of Biological Systems	Х	9
Multimedia networking	Х	9
Network modelling and design	Х	6
Networks and communications systems design	Х	6
Optimization techniques for TLC	Х	3
Organizational information systems	Х	6
Pattern recognition	Х	3
Privacy and Intellectual Property Rights	Х	6
Project on Applied Security	х	18
Real time operating systems and middleware	Х	6
Real-time operating systems and middleware	Х	6
Recognition systems	Х	6
Remote sensing system	Х	6
Requirement engineering	Х	6
Research Project	Х	12

Satellite communications devices	х	6
Science, technology and business	Х	6
Security Engineering	Х	6
Security testing	Х	6
Signals and systems	Х	6
Spoken interactive systems	Х	6
Technical Writing	Х	6
Techniques for imaging and diagnostics	Х	6
Web architectures	Х	6
Wired communications systems and devices	Х	9
Wireless communications techniques and design	Х	6
Wireless networks	Х	6

### MS in Telecommunication and Engineering

### **Course presentation**

The two-year Master in Telecommunications Engineering provides all the essential skills usually required by ICT companies. The purpose of the MS program is to create professionals able to use modern technologies in both industrial and research environments. The MS in Telecommunications Engineering offers specializations in Multimedia Communication, Networking, Electromagnetic Technologies, Electronics and Pattern Recognition/Remote Sensing.

### **Learning outcomes**

The goal of the MS in Telecommunications Engineering is to train skilled professionals able to promote technological innovation and to manage it at different levels. From a methodological point of view, the MS graduates will gain a complete understanding about the most recent technologies, tools, systems and infrastructures in one or more areas of specialization.

### **Course organisation**

The Master of Science Program in Telecommunications Engineering includes both compulsory and elective classes. The compulsory courses provide students with the essential know-how about electronics, communication topics and computer science. The elective courses are grouped into the following five areas: Multimedia communications, Networking, Electromagnetic Technologies, Electronics, Pattern Recognition and Remote Sensing.

The Master program in Telecommunications Engineering is in English and it consists of two paths:

- Telecommunications Engineering
- ICT Innovation

## **Telecommunication Engineering**

## 1<sup>st</sup> Year

Subject	Elective	CFU
Advanced biomedical imaging and diagnostic	Х	6
Audio signal processing	х	6
Communication systems		12
Computer Vision	Х	6
Data Hiding	Х	6
Digital signal processing		6
Economic and management		6
Electromagnetic compatibility	Х	6
Electronics for industrial automation	Х	6
Electronics for Robotics	х	6
Electronic systems design	Х	6
Embedded electronic system		9
Hardware software co-design	Х	6
Image processing and transmission	Х	6
Microprocessors	Х	6
Mobile communications	Х	6
Network modelling and design	Х	6
Networks and communications systems design	Х	6
Optimization techniques for TLC	Х	3
Pattern recognition	Х	3
Project course	Х	6
Radar and radio-localization	Х	6
Real-time operating systems and middleware	Х	6
Recognition systems	Х	6
Remote sensing system	х	6
Satellite communications devices	Х	6
Spoken interactive systems	х	6
Spoken interactive systems lab	Х	3
Techniques for imaging and diagnostics	х	6
Wired communications systems and devices		9
Wireless communications techniques and design	х	6
Wireless networks	Х	6

## 2<sup>nd</sup> Year

Subject	Elective	ECTS
Advanced digital design	Х	6
Advanced remote sensing systems for environment	Х	6
Antennas for wireless communications		9
Audio signal processing	Х	6
Computer Vision		6
Data Hiding	Х	6
Distributed systems		6
Electromagnetic compatibility	Х	6
Electronics for telecommunications		9
Electronic systems design	Х	6
Final project		15
Image processing and transmission	Х	6

Laboratory of Wireless Sensor Networks	х	6
Multimedia networking		9
Networks and communications systems design	Х	6
Project course	Х	6
Real-time operating systems and middleware	Х	6
Recognition systems	Х	6
Remote sensing system	Х	6
Satellite communications devices	Х	6
Spoken interactive systems	Х	6
Techniques for imaging and diagnostics	Х	6
Wireless communications techniques and design	Х	6
Wireless networks	Х	6

### 1.1.1.2 STEM department (DISI): analysis of research projects

The webpage of the department has a dedicated section for the Research Programs (RP), which are "the strategic mean with which the DISI organizes research on the inside". Each Research Program is economically autonomous and employs teaching and research staff in permanent positions such as: Full Professors, Associate Professors, and the previous position of permanent Assistant professors, deleted by the last University Reform (which have been following a range of subjects related to Computer Science and Telecommunications). The research programs (RP) last three years and can be renewed. Below we listed titles and brief descriptions of the RP followed by their sex compositions:

- Data and Knowledge Management: Designing and developing management systems for different types of data (relational, XML, social, textual, time series, streaming, sensor, business process data, and others). Knowledge representation and knowledge management with a focus on how to achieve interoperability across multiple local representations. This approach enables the effective management of diversity in knowledge.
- Embedded Electronics and Computing Systems: Technological issues related to intelligent systems and their ability to be distributed in an environment to solve complex problems. Embedded electronics and computing systems. Industrial and environmental monitoring and the video surveillance.
- Language, Speech and Interaction: Language processing, vision, machine learning and interaction. Human-centered communication systems and models of interactions in any of the ICT scenario such as speech-to-speech, speech-to-web and multimodal interactions. Focus both on the computational aspect of the interaction models as well as on the usability of the user interfaces.
- LION machine Learning and Intelligent Optimization: Intelligent optimization and reactive search optimization (RSO) techniques for solving relevant problems related to: marketing automation and e-commerce, telecommunication networks, ICT, mobile services, big data, cost management, social networks, clustering and pattern recognition in bio-informatics. Big data, predictive analytics and optimization (prescriptive analytics).Reactive Search and Intelligent Optimization. Machine learning. Machine learning and optimization for bioinformatics.

- Multimedia Signal Processing and Understanding: Multimedia data processing, focusing onto both theoretical and application-driven research issues. Computer vision. Semantic media retrieval. Multimedia forensics.
- Remote and Distributed Sensing: Analysis of remote sensing data, the definition of data fusion approaches to the integration of multi-temporal and multi-sensor images. Application in Agriculture; Forestry; Monitoring urban areas and atrophic infrastructures; Identification and monitoring of illegal landfills; Monitoring of glaciers and snow; Monitoring of water resources; Civil protection and risk assessment; Damage assessment; Land-cover and land-use mapping; Estimation of biophysical parameters; Monitoring of the atmosphere; Planetary exploration.
- Signal Processing and Recognition and Software Engineering, Formal Methods and Security: Design of smart computerized signal/image processing and recognition systems. Application in remote sensing in key real-world applications such as environmental monitoring (mapping, agriculture, precision farming, urban monitoring, forestry, inland and outland waters, and disaster prevention and monitoring.
- Social Informatics: Emerging area of informatics that studies how information systems can realize social goals, apply social concepts, and become sources of information relevant for social sciences and for analysis of social phenomena. It is concerned with the intersection of social behaviour and computational systems, and relates to the interdisciplinary study of the design, uses and consequences of information technologies that takes into account their interaction with institutional and cultural contexts.
- Systems and Networks: Design and implementation of modern distributed systems and networks.
- Wireless Networking: Theoretical, methodological and experimental research in wireless network systems, architectures, protocols and devices and at teaching advanced topics on wireless networking, antennas, modern wireless communications and radar techniques.

The Research Projects active in the a.y. 2013/2014 were 166. All the projects are related to informatics, electronics and computing. The table below shows the number of projects by the type of funding while the Annex provides the entire list.

Fund	Number of
	Projects
EIT: European Institute of Innovation and Technology (EU)	29
EUCA: European Control Association (non-profit organization)	7
EU IP: European Intellectual property (EU)	5
ESA: European Space Agency	1
EU RTN: European Research Training Networks (EU)	30
EU STREP: European Specific Targeted research Projects (EU)	7
MAE Ministry of Foreign Affairs	3
Marie Curie	2
MIUR: Ministry of Higher Education	9
Third Party (International)	22
Third Party local	1
Third Party national	12
Third Party Trentino	18
PAT – Provincial Consortium	11
TrentoRISE – Provincial Consortium	7

## 1.1.2 SSH department (DSRS)

### 1.1.2.1 SSH department (DSRS): analysis of curricula

The Masters of Science at the SSH Department (DSRS) are three:

- 1. Sociology and Social Research (SRS)
- 2. Management of organizations and territorial networks (GOT)
- 3. Methodology, Organization and Evaluation of Social Services (MOVASS)

## Sociology and Social Research (SRS)

### **Course Presentation**

This Master's Course trains graduates in the field of social research. It is based on advanced knowledge of methods and new techniques to carry out research on the social world. Graduates master logic-conceptual tools and the resulting theoretical and methodological skills required in the different phases of social research: the tabling of hypotheses; the preparation of a research plan suitable to test the hypotheses; data collection techniques; analysis and interpreting of quantitative and qualitative data.

### **Learning Outcomes**

The Master's course in Sociology and Social Research aims at training professionals in social research, with advanced knowledge in the sociological disciplines and high-level capacity in analysing social phenomena. Professional skills such as:

- Empirical researches in the main application fields of social sciences, from the study of social inequalities, migration, labour market and welfare, to opinion polls and market research on consumption and communication.
- Mastering of logic-conceptual and methodological tools for a multi-disciplinary approach to the social research.
- Capacity to analyse, interpret and submit to the client the results of empirical research, of quantitative and qualitative nature.

### **Course Organization**

The MS provides classes dealing with theoretical, methodological and technical skills in the field of social research. At the same time students may specialize in specific thematic areas choosing from a wide range of sociological and similar subjects and, also, while preparing the dissertation.

### 1st Year

Subject	Elective	ECTS
Research methodology and design		6
Laboratory of Research methodology and design		3
Quantitative methods (Advanced)		6
Laboratory of quantitative methods (Advanced)		3
Qualitative Methods		6

Qualitative Methods Lab	3
Statistics for social research	6
Social structure and inequalities	6
Sociological approaches to culture	6
Culture and globalization	6
Dissertation drafting preparation seminar	3
Laboratory of Methodology	3
Language skills - English - B2	3

## 2<sup>nd</sup> year

Subject	Elective	ECTS
Research methods in history		6
Research methods in political science		6
Social Policy	Х	6
Sociology of generations	Х	6
Comparative Sociology	Х	6
Language and Society	Х	6
Communication, Science and Technology	Х	6
Space and Culture	Х	6
Sociology of cultural processes (advanced)		6
Education and Social Inequalities	Х	6
Methodology internships or laboratories		9
Sociology of war	Х	6
Sociology of development (advanced)	Х	6
Sociology of Collective Action	Х	6
Elective credits		3
Final exam		18

## Management of Organisations and Territorial Networks (GOT)

### **Course Presentation**

This Master's course aims at training experts capable of:

- Acquiring knowledge and tools to efficiently work in the organizations and manage them.
- Working in the territorial and environmental processes.
- Managing territorial context and facilitate the processes of organizational and technological innovation.
- Drafting and implementing policies for the management and development of the organizations, the territories and the environment.

The study plan is marked by a strongly interdisciplinary profile. The sociology of the territorial processes, of organization, work and economy are studied from the thematic and methodological viewpoints.

### **Learning Outcomes**

This Master's course aims at analysing the topics of management of organizations, work, environment and territory in the field of the phenomena of the society of knowledge,

globalization and the ICT technologies. The course aims at providing a sound knowledge – from the viewpoints of the sociological and social study of the territorial systems – for the organizational management of operational facilities, the guiding of interdisciplinary working groups and the organizational training in working places and in the facilities, which supervise the territory.

### **Course Organization**

The GOT MS Course provides common training courses (including Anthropology, Sociology of Environment, Sociology of Organization, Local Government, Public Policies, Information Systems) and is divided in two Curricula:

- Management of Organizations, (first year: Sociology of Innovation, Information Systems, Economic Sociology, Sociology of Work; second year: Research Laboratory on work and organizations; Sociology of Technological Phenomena; Quantitative Methods);
- Management of Environment, (first year: Local Planning, Sociology of Local Communities, Analysis of Territorial and Environmental Policies, Sociology of International Relationships, Sociology of Administration; second year: Sociology of Migrations, Sociology of Tourism, Sociology of Ethnic Relationships; Quantitative Methods).

The GOT curriculum provides:

### Common courses:

## 1<sup>st</sup> year

Subject	Elective	ECTS
Cultural Anthropology (Advanced)		6
Sociology of Environment (Advanced)		6
Sociology of Organization (Advanced)		6
One course between:		
Local Administration		6
Public Policies Analysis (Advanced)		O
Political Culture and Democracy		
English Language level B2		3
Other activities (Seminars)		9

## 2<sup>nd</sup> year

Subject	Elective	ECTS
Futures Studies		6
Information Systems Research Laboratory		9
Elective course		6
Free ECTS		3
Other activities		6
Final Exam		21

## Curriculum "Management of Organizations"

## 1<sup>st</sup> year

Subject	Elective	ECTS
One course between:		
Sociology of Economy (Advanced)		6
Sociology of Innovation		
Information Systems		6
Sociology of Innovation		6
One course between:		
Sociology of work (Advanced)		6
Human Resources Management		

## 2<sup>nd</sup> year

Subject	Elective	ECTS
Sociology of Technological Phenomena		6
One course between:		
Research Laboratory on Work and Organization		9
Quantitative Methods (Advanced)		

### Curriculum "Environment Management"

## 1<sup>st</sup> year

Subject	Elective	ECTS
Territorial Planning		6
Sociology of local communities		6
One course between: Analysis of territorial and environmental policies Sociology of international relations Advanced)		6

## 2<sup>nd</sup> year

Subject	SSD	Elective	ECTS
One course between: Sociology of migration Sociology of tourism	SPS/10		6
One course between: Qualitative Methods applied on local environment Quantitative Methods (Advanced) Theory and Methods of Social Planning	SPS/07		9

## Methodology, organization and evaluation of social services (MOVASS)

### **Course Presentation**

This Master's course provides professional skills to work in the field of social services, health-social services and the educational-social services and services to support the access to the labour market in public and private institutions, in the field of services. The course integrates methodological subjects in the field of social work, and gives tools to

organize the social actions, evaluate the social services, knowledge in administrative law and economics and management of social services.

### **Learning Outcomes**

- Acquisition of skills in the field of management, coordination, planning, organization and evaluation of social services, health-social services, educational and support to job search.
- Methodology and organization of social services, economic management and management of new organizations of the third sector.
- The development of self-analysis skills and the acquisition of concrete experiences.

### **Course Organization**

The Master MOVASS provides training courses related to methodology and management of social services. Even though this general topic could involve a structural gender dimension, not every single course explicitly does.

### 1st year

Subject	Elective	ECTS
Working methodology of social services		6
Research methodology of social services		6
Economics and management of social services and social enterprises		12
Organization of social services (Advanced)		6
Prevention and rehabilitation of social disorders		6
Clinical psychology of social services		9
Theories and methods in the social planning and organization		6
Evaluation of social services		6

## 2<sup>nd</sup> year

Subject	Elective	ECTS
Administrative law of social services		12
HR Management		6
Social policy (Advanced)		6
Elective credits		8
Language skills		3
Internship		10
Final exam		18

## 1.1.2.2 SSH department (DSRS): analysis of research projects

At the Sociology and Social Research Department there are 9 Research Units, composed by permanent and temporary staff.

### Centre of Interdisciplinary Gender Studies - CSG

This study Centre adopts gender differences as key to interpretation and as an instrument in research and interdisciplinary practices, touching upon different fields: economic, juridical, political, scientific, sociological and humanistic. The Centre's main aim is to spread gender culture through different initiatives: cultural exchanges, scientific debates as well as national and international collaborations. The Centre also offers its competence to institutions and people. The Centre offers post-graduate training and lifelong learning activities. Furthermore, the Centre organizes seminars and conferences and takes part in research and experimental projects.

It is within the Centre of Interdisciplinary Gender Studies, in collaboration with the RUCOLA Research Unit, that the GARCIA project has been elaborated.

### Research Unit on communication, organizational learning and aesthetics - RUCOLA

The research areas are: Organizational Learning and Knowing; Aesthetic Understanding and Tacit Knowledge; Gender as Social Practice; Information Technology, Work and Organization; Healthcare, Wellbeing and Social Innovation; Safety, flexible work, occupational health; Qualitative Methods of Organizational Analysis.

### **Center for Social Inequality - CSIS**

Its main objective is the promotion and coordination of initiatives of theoretically driven empirical research, focusing on Social Inequalities, their relation to institutions and their change over time and across generations.

It is applied a comparative and interdisciplinary approach dealing with the analysis of the distribution and the perception of inequalities in the following fields: Welfare and the political system; Employment and the labour market; Families, demographic change; Education.

### **Democracy and Global Governance - DEMOGLOB**

Interdisciplinary Research Centre for the study of Democracy and Global Governance, whose main goals are: To sponsor and coordinate research projects on the transformation of democracy within the national, European, and international context; To contribute to the development of theories concerning the processes of Europeanization, internationalization, and globalization; To study the transformation of the conflicts connected with the processes of internationalization and globalization.

## Age's of life - eVita

The research unit eVita deals with: The different stages of life, with particular attention to young people, adults and the elderly, as well as the changing structures and roles related to these three ages. The different dimensions of parenting with particular attention to the variety of prospects that will materialize in the processes of change. The interactions between the cohorts with particular attention to the effects and the dynamics of long course with the problems that may emerge.

### **Local Development and Global Governance - LoG**

The Research Unit "Local Development and Global Governance" (LoG) aims to promote and coordinate initiatives of study, research and interdisciplinary training in the area of local development and global governance.

### Migration scenarios and social changes - SMMS

The topics on which the SMMS works are: Ethnic segregation, assimilation and social cohesion; Irregular migration systems; Second generation migrants; Female migrants; Models of sociability, migration paths and integration of migrants; Developments of the sociological theory of international migrations and ethic relations.

### Science and Technology in Society - STSTN

Interdisciplinary project aimed at raising awareness among researchers (especially younger ones) of issues concerning the relationship between science and society. Activities started in 2007 in three main areas: seminars, research, national and international collaborations.

### Values, Belonging, Democracy - VADem

The Research Unit deals with: Value-orientations of Italians and Europeans. Attitudes of the sense of socio-territorial belonging with specific reference to spatial mobility and to 'localism', 'nationalism', and 'cosmopolitanism'. Analysis of democracy and its transformations, with particular reference to the dimension of political culture. The relations between politics and religion within the democratic and secular State e the post-secular society.

In 2013 39 research projects were active at the DSRS Department.

Fund	Number of projects
APPS Trento - Provincial Health Services of Trentino	4
Third Party – Local	3
Local Administration - Bozen	4
ECPR (European Consortium for Political Research)	2
Local Foundations	8
Third Party	1
IPRASE – Provincial Institute for Research	1
Local Private Centers of Research	1
MIUR – Ministry of Education	6
PAT – Provincial Consortium	7
EU	2

# 1.2 MAPPING A GENDER DIMENSION IN EXISTING CURRICULA AND RESEARCH AT STEM DEPARTMENT

### 1.2.1 The analysis of curricula

This section describes the contents and the gender structure of the two Masters at the DISI Department: Computer Science and Telecommunication and Engineering.

#### 1.2.1.1 Contents

The analysis of both the MS Curricula of the DISI department shows that there are no gender-related courses.

Nevertheless, it is interesting to report how the STEM guide book mentions gender stereotypes in order to invite girls to enrol the Computer Science courses. Indeed, when the guide provides information about the skills and the competences required to students, it deconstructs, with a smart language, the two main stereotypes about Information Engineering and Computer Sciences scholars: firstly, the fact that "it is only for geeks" and, secondly, the fact that "it is only for boys". Notably, this is the only section where the text addresses both sexes in a direct and informal way ("Dear boys and girls.."), while in rest of the document the sex used to refer to scholars and teachers is always (supposedly neutral) male.

The argument used to demonstrate that Information Engineering and Computer Sciences are not "matters for male" is the "experience" of the Department staff in matter of teaching:

"In our direct experience, not only there is no evidence about the alleged superiority of male students compared to their female colleagues, but, on the contrary, female students obtain an average academic results equivalent or superior to their male peers. [...] For example, if on one side typically the male students are considered "geeks", on the other girls use to study and work more accurately and systematically, and with less self-conceit" (p. 14)

Moreover, girls are encouraged to overcome the "sexist and foolish" cultural stereotype of the "geek male" because it excludes them from many relevant spheres of the social life such as public services, public administration, tourism, agriculture, health etc. Nevertheless, this clarification seems to be employed to demonstrate that Information Engineering and Computer Sciences is implemented also in social and concrete fields, more suitable to female students. At the same time, the sheer majority of the pictures (employed to advertise the department) portray women, over-representing the presence of female students or teachers at the DISI.

The map of gender contents at the STEM department did not find any gender-related course, even though several trans-disciplinary courses were touching upon themes overlapping with gender issues. Some of the courses more closely related to gender as object or output are: the study of team work; HR management; Group psychology; Medical technology and biology; Technology users; Analysis of consumer behaviour.

Below we report several training course, which refer to these main areas:

Business Development Laboratory 6 ECTS (Woman)

Basic Areas for the development of Business Concept (Social, Economic, Environmental, Innovation). Team composition, formation and spirit, and elements of HR management. These concepts will generate the business model of the identified business concept. Gender not mentioned.

Computer Supported Co-operative working 6 ECTS (Woman)

**Objectives:** The aims of the course are to examine the implications of using groupware technologies to support collaboration between members of a team. It will expose the strengths and weaknesses of selected synchronous and asynchronous collaboration tools, for collocated and distributed groups. The course unit will introduce students to the social, organisational and design issues associated with the introduction of groupware technologies.

**Main topics:** Introduction to CSCW; Introduction to group psychology; On-line communities; Usability & Sociability; Cross-cultural communication.

**Learning Outcomes:** Academic knowledge: Understand the theory of small groups as complex system and link it to CSCW.

**Intellectual skills:** Analyse groupware in terms of social dynamics and relate them to CSCW design issues; Subject practical skills; Observe and understand group dynamics; Improve team work.

Economics and Management 6 ECTS (Man)

**Objectives:** A strong focus will be placed on the role of innovation and entrepreneurship on current and future socio-economic challenges. Also emphasis will be given to a critical view of the myths and mythologies of economics and innovation.

**Main topics:** In depth understanding and the ability to systematically explore the important elements in managing companies and developing its human resources; Basics concepts in economic and social sciences; The role of the scientist and of the entrepreneur in the innovation process.

Moreover, all the 24 responses to the web-survey were negative apart from one submitted by a female Professor. Who explained that her course highlights differences between users alongside culture, age and other variables.

### 1.2.1.2 Gender Structure

The students enrolled in the MS of Telecommunication and Engineering in the a.y. 2013/2014 were 90 (78 men and 12 women), while the Computer Science MS enrolled 139 man and 17 women (total 156).

# Students enrolled in MS Computer Science and Telecommunication and Engineering a.y. 2013/2014:

	Students enrolled per year and sex						
MS Courses	M F			Total enrolled			
	1° yr	2°yr	Tot	1° yr	2° yr	Tot	
Telecommunication and Engineering	36	42	78	7	5	12	90
Computer Science	53	86	139	11	6	17	156
Total	89	128	217	18	11	29	246

## Composition of teaching staff, considering the organizational position and sex:

Permanent F Teaching Staff	Permanent M Teaching Staff	Temporary F Teaching Staff	Temporary M Teaching Staff
4	41	12	111

Below we report the gender composition of each training course of both the STEM MS, considering the sex of students and teachers:

Sex of teachers and number of students divided by sex who passed each test at Computer Science MS Course

Course	Teacher	Students F	Students M	Total
Computability	M	6	54	60
Data mining for biological data	М		1	1
Web architectures	М	1	20	21
Wireless Network and mobility	М		1	1
Data hiding	F		2	2
Economics and Management	M and F	4	20	24
Embedded electronic systems	М	1	1	2
Network modelling and design	М		1	1
Satellite communications devices	М		1	1
Computer vision	М		1	1
Hardware software codesign	М		1	1
Information System	М		2	2
Advanced networking	М	2	19	21
Agent-oriented software engineering	М	2	15	17
Laboratory of biological data mining	М	4	15	19
Distributed systems	М		3	3
Formal methods	М	3	31	34
Logics for data and knowledge representation	М	3	24	27

Machine learning	M	1	18	19
Network security	М	4	16	20
Laboratory of Nomadic communications	М		5	5
Nomadic communications	М		1	1
Organizational information systems	М	2	15	17
Real time operating systems and middleware	М	1	16	17
Requirements engineering	М	2	14	16
Science, technology and business	М	3	13	16
Laboratory of Wireless sensor networks	М	1	9	10
Laboratory of Business Process Management and integration	M	3	28	31
Data and information integration	M	6	30	36
Laboratory of embedded control systems	M		2	2
Signals and systems	M		9	9
Computer Supported Co-operative working	F	1	25	26
Business Development Laboratory	M and F	5	22	27
Economics and Management	M and F	6	42	48
Laboratory of Service Design and Engineering	M		8	8
Logic	M	11	42	53
Massive Data Analytics	M		13	13
Security Engineering	F	7	26	33
Language Understanding Systems	М	1	5	6
Concurrency	F	1	14	15
Cryptography	М	3	10	13
Security testing	М	2	22	24
Privacy and Intellectual Property Rights	M	4	20	24
High-Throughput Methodologies 2: Data Analysis	M		5	5
Introduction to service design and engineering	M	1	21	22
Introduction to Cell Biology	M and F		3	3
Formal Techniques for Cryptographic Protocol Analysis	M		2	2

Sex of teachers and number of students divided by sex who passed each test at Telecommunication and Engineering MS Course

Telecommunication and Engineering Course	Teacher	Students F	Students M	Total
Electronic systems design	М		1	1
Electronic systems design	М		3	3
Audio signal processing	М	1	4	5
Communication systems	М	4	39	43
Data hiding	F		10	10
Digital signal processing	M and F	3	26	29
Economics and Management	М	7	36	43
Image processing and transmission	М	1	2	3
Electromagnetic compatibility	М	3	19	22
Embedded electronic systems	М	8	29	37
Mobile communications	М	5	12	17
Multimedia networking	М	3	23	26
Network modelling and design	М	5	28	33
Optimization techniques for TLC	М	4	17	21
Pattern recognition	M and F	1	17	18
Real-time operating systems and middleware	М		2	2
Satellite communications devices	М	4	14	18
Wired communications systems and devices	М	4	29	33
Wireless networks	М	1	9	10
Antennas for wireless communications	М	9	28	37
Computer vision	М	1	20	21
Electronics for telecommunications	М	10	33	43
Distributed systems	М	7	35	42
Advanced remote sensing systems for environment	M and F		8	8
Networks and communications systems design	М		7	7
Advanced digital design	М		3	3
Recognition systems	М	1	5	6
Advanced networking	М	1		1
Laboratory of Wireless sensor networks	М		1	1
Business Development Laboratory	M and F	3	2	5
Security Engineering	F	3	2	5
Privacy and Intellectual Property Rights	М	2	2	4

Design of Networks and	М	2	4	6
Communication Systems				
Communications Systems I	М	3	2	5

### 1.2.2 The analysis of research projects

### 1.2.2.1 Contents

The Research Projects active in 2013 were 166. All the projects are related to informatics, electronics and computing. We did not find any reference to gender in the content, methodology or output. Although often DISI projects deal for example with health technology for elderly people, informatics for different needing, smart cities, management of working teams etc. See tables in the Annex for more information on titles, dimension and the financing of each project.

### 1.2.2.2 Gender Structure

The research at the STEM Department (DISI) is organized through Research Programs (RP), which are units of research composed by permanent staff. Each RP has a webpage with the description of the mission, the research areas, the members of the team and the research projects conducted. A brief summary of the research areas of each RP is reported in the section "STEM Department (DISI) Research Projects".

**Gender Structure of Research Programs STEM Department** 

Research Program	Perm M staff	Perm F staff
Data and Knowledge Management.	6	0
Embedded Electronics and Computing Systems	3	1
Language, Speech and Interaction	4	1
LION - machine Learning and Intelligent	3	0
Optimization		
Multimedia Signal Processing and Understanding	4	1
Remote and Distributed Sensing	3	0
Signal Processing and Recognition	4	0
Social Informatics	4	1
Software Engineering, Formal Methods and	5	0
Security		
Systems and Networks	5	0
Wireless Networking	7	0

Since the website is not regularly updated, the administrative office granted us access to the files of all the projects through the internal informatics system of payments. This has been the only form to access data about the gender structure of the research groups for each project. The tables containing the data are reported in the Annex (I).

The results are that, in 2013, looking at the gender structure, out of 166 projects, 123 (30,3%) involved men with a permanent contracts, 190 (46,8%) men with temporary contracts, 90 (22,2%) women with temporary contracts, and only 3 (0,7%) women with permanent contracts. This gap is due to the evident lack of women researchers and

professors at the STEM Department where only 4 women have a permanent position (versus 41 permanent professors). Moreover, it should be stressed that temporary researchers are not always visible in the research teams.

### **Gender Structure of Research Projects**

Involvement in research projects of men with permanent position	123
Involvement in research projects of men with temporary position	190
Total	313
Involvement in research projects of women with permanent position	3
Involvement in research projects of women with temporary position	90
Total	93
Total	406

# 1.3 MAPPING A GENDER DIMENSION IN EXISTING CURRICULA AND RESEARCH AT SSH DEPARTMENT

### 1.3.1 The analysis of curricula

As above mentioned, the SSH Department (DSRS) holds three Masters of Science:

- Sociology and Social Research (SRS)
- Management of organizations and territorial networks (GOT)
- Methodology, Organization and Evaluation of Social Services (MOVASS)

This section describes the gender-related contents and the gender structure of each MS training course.

### 1.3.1.1 Contents

### SRS – Sociology and Social Research

**Content:** The course foresees two main areas of study: the first provides the structural analysis of inequalities in school and work participation, the change of families and gender inequalities, and the role of welfare state. The second area studies the communication and cultural processes and the life styles.

In this section we report: a) the list of courses for each year; b) the analysis of the syllabus with a gender-related content taken from the desk analysis; 3) the results of the web survey.

### **Syllabus Analysis**

Culture and globalization (Woman)

The course presents the main socio-anthropological theoretical schools reflecting on globalization; it examines how these theories affects and are affected by the study of culture; and explores how globalization influences contemporary everyday life. The bibliography provides a consistent list of readings related with gender and anthropology: Lock, M. and Nguyen, V.K. (2010) "Colonial disease and biological commensurability" in

An Anthropology of Biomedicine, Oxford: Blackwell; Knecht, M, Klotz, M., e Beck, S. (2012) Reproductive Technologies as Global Form, Ethnographies of Knowledge, Practices, and Transnational Encounters, Frankfurt, New York: Campus.

Web-survey: the lecturer (woman) answered that, even though the course does not address specific gender topics, gender is employed in several case studies as examples of research. Moreover,, postcolonial feminist aspects are presented in reference to sociocultural, politic and economic contemporary issues.

### Quantitative Methods (Woman)

The course presents the research process in quantitative social science, the fundamental aspects of research designs, a solid base of essential analytical tools and basic knowledge about selected advanced research methods. However, Gender is not mentioned in the syllabus.

Web-survey: the teacher (woman) answers that gender is considered as an important stratifier of society.

### Research methodology and design (Men)

The objective of the course is to form experts able to conduct quantitative surveys. The bibliography presents an article written by a female interviewer suggesting the relevance of gender stereotypes in research: Toller, C., "Memorie di un'intervistatrice pentita", *Politica ed economia* [Memoirs of a repentant woman interviewer], 5/6 1994. However, Gender is not explicitly mentioned in the syllabus.

### Research Methods in Political Science (Men and Woman)

The course offers methodological tool for network analysis. Gender is not mentioned in the syllabus.

Web-survey: the two lecturers (women, with a temporary contract) working with the main professor of the course (a man) answered that gender is considered in several case studies focusing on feminist movements and the use of informatics technologies by women. Moreover, it is considered an independent variable testing gender asymmetries in political participation.

### Social Policies (advanced) (Man)

The course provides the analysis of gender-related topics such as: public policies and welfare systems, labour policies and labour market regulations, social security and pension policies, health policies, education policies, but does not refer explicitly to gender.

### Social structure and inequalities (Man)

The course aims to clarify the concept of social inequality and illustrates the main areas and key factors of social inequality in contemporary societies: including "Genders and generations".

### Social Policy (Man)

The course deals with basic tools for the analysis of public policies and their influences on social inequalities and individual life courses in contemporary Europe. Some of the topics are gender related but not explicitly mentioned: Public policies and welfare systems, Labour policies and labour market regulations, Social security and pension policies, Health policies, Housing policies, Policies against poverty and social exclusion, Education policies, Impact evaluations of public policies.

### Sociology of generations (Man)

The module examines the concept of generation in its historical, social and cultural dimensions. In particular, it addresses the issues related to the transmission of adult roles to new generations. In the bibliography a book with a part regarding sociology of childhood and reproduction/motherhood is suggested: Satta C. (2012), *Bambini e adulti: la nuova sociologia dell'infanzia* [Children and adults: the new Sociology of Childhood], Roma: Carocci, which addresses topics as Childhood studies and Gender studies; socialization to the "interpretive reproduction", Women and children in daily life.

### Space and Culture (Man)

The course deals with the following topics: space and social theory; space and place (social circulation interaction and affection); spatial formation (networks); spatial scales and social action (body, city etc); public space and cultures; mobility and speed. The bibliography presents a text analysing the issue of gender and space: Warf B and Arias S (eds) (2008) *The Spatial Turn: Interdisciplinary Perspectives*. Abingdon: Routledge.

## Education and Social Inequalities (Man)

The course focuses on the relationship between education, social inequalities and labour market outcomes, including gender segregation in higher education: causes and consequences for gender inequality.

### Sociology of Collective Action (Man)

The course provides theoretical and methodological tools to study collective action. The bibliography suggests some readings with reference to the feminist movements: Della Porta, D., Diani M. (2006) *Social Movements*. Oxford: Blackwell; Tilly, C., and Tarrow S. (2007) *Contentious Politics*. Boulder, CO: Paradigm; Crossley, N. (2002) *Making Sense of Social Movements*. Buckingham: Open University Press

### GOT - Curriculum "Management of Organizations"

The MS Course GOT - Management of organizations and territorial networks, as mentioned in the previous section, studies the topics of management of organizations, work, environment and territory in the society of knowledge, globalization and the ICT technologies. The overview of the Master Course doesn't provide any reference to gender-related issues. Below we report the gender-related courses.

### **Syllabus Analysis**

### Cultural Anthropology (Advanced)(Man)

The course offers key concepts from environmental anthropology and anthropology of organizations. In the bibliography some readings including references to gender and social equity, gender and biodiversity, human rights goals such as ethnic, gender, class, and other forms of Equity, persistent or new inequalities between economic and social classes and gender groups within the community (Kothari, Ashish et al. (eds). 2012. Recognising and Supporting Territories and Areas Conserved By Indigenous Peoples And Local Communities, Secretariat of the CBD.; Borrini-Feyerabend, et al. 2013. Governance of Protected Areas. From Understanding to Practice. IUCN, Gland, Switzerland and Cambridge.

### Human Resources Management (Woman)

The course is meant to develop tools aimed to the enhancement of organizational well-being, health and of quality of life in work environments. Particular attention is paid to the cultural dimension in the formulation and implementation of gender policies in organizations and of the tools aimed at tackling discriminations within workplaces. Gender sensitive language. In the bibliography: Poggio, B., Murgia, A., De Bon, M. (2010) *Interventi organizzativi e politiche di genere*, Carocci, Roma [Gender and organization].

Web-survey: organisational gender policies and work-life balance policies are one of the main topic of the course.

### Sociology of Environment (Advanced) (Woman)

The course studies the relationship between society and the environment both locally and globally. The ways in which forms of settlement shape relationships between men and women are also considered.

### Sociology of Innovation (Woman)

The course is aimed at highlighting how the social dimension of innovation actives complex dynamics of interaction among different actors, their territory and a multiplicity of tangible, intangible and symbolic factors. Between the topics: Innovation and gender. Gender sensitive language. Bibliography: Demaria C. e Violi P. (2008), *Tecnologie di genere. Teoria, usi e pratiche di donne nella rete*, Bononia University Press, Bologna: [Gender technologies. Theory, uses and practices of women in the internet].

### Sociology of Organization (Advanced) (Man)

At the core of the course are organizational concepts, themes and methods for the analysis of management processes, organizational culture, aesthetics and ethics, organizational artefacts and tools, and territorial and welfare systems surrounding organizations. While the syllabus language is gender sensitive, gender is not mentioned as topic, but the bibliography contains a handbook on gender and organizations: Cozza M., Gennai F. (2009), *Il genere nelle organizzazioni*, Carocci, Roma, [gender in organizations].

### Sociology of Work (advanced) (Woman)

The course provides a theoretical and critical overview of the current scenarios of work, with specific attention to the processes of flexibilization, the centrality of the knowledge, the growing differentiation of experience and the work contracts. Also the new challenges that the current changes pose to the welfare system and to the models of human resource management within the workplaces are taken into account. Syllabus: Identity and work; The quality of work; Differences and diversities at work. The Bibliography suggests: Strangleman, Tim e Tracey Warren (2008) Work and Society: Sociological Approaches, Themes and Methods, Routledge [division at work: gender, class and race, domestic work etc.].

### GOT - Curriculum "Environment Management"

### Syllabus analysis

### Cultural Anthropology (Man)

The course offers an introduction to cultural dynamics and anthropological schools and concepts relevant to cultural ecology, environmental anthropology and anthropology of

organizations. Despite the syllabus does not explicitly address gender-related topics the bibliography offers a wide range of gender studies references: Kothari, Ashish et al. (eds). 2012. Recognising and Supporting Territories and Areas Conserved By Indigenous **Peoples** And Local Communities. Secretariat of CBD. the http://www.cbd.int/doc/publications/cbd-ts-64-en.pdf (topics: Gender and Biodiversity, human rights goals such as ethnic, gender, class, and other forms of Equity, Persistent or new inequalities between economic and social classes and gender groups within the community); Borrini-Feyerabend, et al. (2013). Governance of Protected Areas. From Understanding to Practice. IUCN, Gland, Switzerland and Cambridge (topics: gender and social equity).

### Economic Sociology (Man)

The course offers a comparative approach of North/South East/West relationships of non-economic factors in economic development processes through empirical reading of the social processes of modernization and institutional reconstruction in the recent economic market changes (modernization, districts, relocation and economy in finance, emerging patterns of development). Gender is not mentioned.

Web-survey: the teacher (man) answers that gender is considered, but without giving any further explanation about when and where.

### Futures Studies (Man)

The course offers theoretical tools to understand and anticipate change, it provides some of the most relevant foresight methods. Gender does not appear in the syllabus neither in the bibliography.

Web-survey: the teacher (man) answered that gender is considered within the analysis of the demographic trend, the family roles changes, the structure of emotions and their verbalization.

Human Resources Management (see previous section)

### Political Participation and Ethnicity (Man)

The course offers a basic background on key debates in the political sociology of ethnicity: classic theories of ethnicity; political participation and political protest in which ethnicity is key factor. The syllabus does not mention gender issues, but the bibliography contains several references gender-related: Ratcliffe, P. (2004), 'Race', Ethnicity and Difference: Imagining the Inclusive Society, London, Open University Press; Baylis J, Smith S, Owens P (eds) (2010) The Globalization of World Politics: An Introduction to International Relations. Oxford UP, Oxford (cap. 16 Gender in world politics by A. Tickner); May S, Modood T, Squires J (eds) (2005) Ethnicity, Nationalism, and Minority Rights. Cambridge.

Web-survey: the teacher (man) answers that the gender dimension is considered in the study of socio-demographical differences in the propensity to vote for different political parties.

### Quantitative Methods (Woman)

The course presents the research process in quantitative social science, the fundamental aspects of research designs, a solid base of essential analytical tools and basic knowledge about selected advanced research methods. Gender is not mentioned in the syllabus.

Web-survey: the teacher (woman) answers that gender is considered as an important stratifier of society.

Sociology of Innovation (Woman)(see previous section)

Sociology of Migration (Woman)

The course proposes a multilevel representation of the contemporary international migrations. The syllabus and the bibliography don't mention gender-related issues, but one of the topics is "Immigration and citizenship: rights, demography, identity", that indirectly refers also to gender.

Websurvey: the teacher (woman) answers positively to the question about the presence of gender-related issues in the course (but without specification).

Sociology of the Territory (Woman)

The first part deals with issues concerning the sociological analysis of urban communities, the second part focuses on rural communities; between the main topics, we found theoretical approaches to the study of the general relationship between society and space: the human ecology school; the Marxist school; the cultural approach; the relational approach; urban poverty; gentrification; migrations and urban ethnic segregation; sustainable development and local communities; the marginality of rural areas and its key dimensions (geographical, demographical, economic, political and cultural). The forms of power in the relationship between women and men are also considered

Websurvey: the teacher (woman) explains that gender issues are addressed in the introduction of the course about inequalities, differences and territory.

Sociology of Tourism (Man)

The course focuses on the structural conditions and cultural factors that have led to the increase of various typologies of tourism and different types of tourists. Feminist theories related to tourism are presented.

Websurvey: the teacher (woman) says that gender is always a factor of differentiation in the market of tourism, and it influences the way people travel. This aspect is presented through the course with references to the history of tourism, the general theory of tourism and the empirical studies described.

Sociology of Organizations (see previous section)(Man)

At the core of the course are organizational concepts, themes and methods for the analysis of management processes, organizational culture, aesthetics and ethics, organizational artefacts and tools, and territorial and welfare systems surrounding organizations. While the syllabus language is gender sensitive, gender is not mentioned as topic, but the bibliography contains a handbook on gender and organizations: Cozza M., Gennai F. (2009), *Il genere nelle organizzazioni*, Carocci, Roma, (gender in organizations).

Sociology of Work (see previous section) (Woman)

Work and Organization (Woman)

The course offers theoretical and methodological tools of investigation of work and organizations. Gender is not explicitly mentioned, however on of the topic addressed is 'Body and sensible knowledge'.

Web-survey: the teacher (woman) answers that her course presents a gender dimension, without specifying anything else.

MOVASS - Methodology, Organization and Evaluation of Social Services

#### 1st year

As mentioned in the previous section, the MOVASS MS course deals with the study of social services, health-social services and the educational-social services, and services to support the access to the labour market in public and private institutions. Although several courses deal with gender-related subjects the general presentation of the course does not refer to any gender-related issues.

### **Syllabus Analysis**

Research Methodology for the Social Services (Man)

The course addresses the research design and the techniques of analysis in the professional practice of social work. No mention is made about gender-related topic, however the bibliography suggests the reading of Overlien, C. (2011). "Narrating the good life - children in shelters for abused women talk about the future". Qualitative Social Work, 11(5), 470–485

Economics and Management of Social Services and Social Entrepreneurship (Man and Woman)

The course deals with basic notions of institutional economics, concepts of welfare system and the evolution of welfare systems, social entrepreneurship. There is no explicit reference to gender issue, but the bibliography presents: Borzaga C., Fazzi L., *Manuale di politica sociale*, (Health policies, Welfare actors, the family, sociodemographic structure changes).

Prevention and Rehabilitation of Social Deviances (Man)

The course deals in a theoretical and empirical way with the typical issues related to criminology and sociology of deviance: relational and environmental factors related to deviant behaviour; crime prevention; deviant phenomena and deviant careers; cultural issues, social and policy related to crime control and criminal etc. There is no mention of gender related issues in the contents however among the readings suggested related readings: P. Knepper (2007), *Criminology and Social Policy*, Sage Publications, Los Angeles, (Part I and Part III: Criminologists and the Welfare State Criminological Theory and Social Policy; Poverty, 'Race', and Gender), Reggio F., *Giustizia Dialogica*. *Luci e ombre della Restorative Justice*, where Feminism and care ethics is treated.

Clinical Psychology of the Social Services (Woman)

The course analyses the main contemporary theoretical frameworks related to clinical psychological approaches concerning the different phases of the life cycle. Even though the syllabus does not mention gender the bibliography suggests two readings related to motherhood and child care: Bibliography: Moro, M.R., Neuman, D., Real, I. (2010) *Maternità in esilio*; Riva Crugnola, C. (2012). *La relazione genitore-bambino*.

Theories and Methods of Social Planning (Man)

The Lectures are focused on a conceptual frame of social planning that takes in account community's anthropology, sociology, history, culture and political dimension. There is no reference to gender issues. However the syllabus presents gender sensitive language.

## 1.3.1.2 Gender Structure

## Gender composition of students enrolled to the MS at DSRS

MS Courses	MS Courses  Students enrolled per year and sex								
IVIS COUISES	1	1st Year			2nd year			F	Tot
MS Course Title	М	F	Tot	М	F	Tot			
SRS - Sociology and Social Research	12	10	22	15	20	35	27	30	57
GOT - Management of organizations and territorial networks	27	55	82	39	75	95	66	131	197
MOVASS - Methodology, Organization and Evaluation of Social Services	5	50	55	10	74	84	15	124	139
Total	44	115	159	64	170	234	108	285	393

## Sex and organizational position of teaching staff

Permanent F Teaching Staff	Permanent M Teaching Staff	Temporary F Teaching Staff	Temporary M Teaching Staff
16	37	11	10

SRS Gender structure of the Courses: gender of teachers and number of man and women students who passed each exam in a.y. 2013/14

Course	Teacher	Students	Students	Total
		Women	Men	
Communication, science and	М	8	10	18
technology				
Comparative sociology	M	5		5
Culture and globalization	F	8	6	14
Education and social inequalities	М	3	3	6
Laboratory of Methodology	М	10	6	16
Laboratory of quantitative methods	F	12	8	20
(Advanced)				
Laboratory of Research	М	10	8	18
methodology and design				
Language and society	M	2	1	3
Qualitative methods	М	8	9	17
Qualitative methods lab	М	8	9	17
Quantitative methods (Advanced)	F	12	10	22
Research methodology and design	М	14	12	26
Research methods in history	F	11	1	12
Research methods in political	M and F	7	2	9
science				
Social Policy (Advanced)	М	2	1	3
Social structure and inequalities	М	11	6	17
Sociological approaches to culture	М	15	10	25
(Advanced)				
Sociology of collective action	М	1	1	2

Sociology of generations	М	1	1	2
Sociology of War	М	2	1	3
Space and culture	М	3	1	4
Statistics for social research	М	16	8	24

GOT Gender Structure of the Courses: gender of teachers and number of man and women students who passed each exam in a.y. 2013/14

voilleit students who passed each				
Course	Teacher	Students F	Students M	Total
Communication, science and	М	2	2	4
technology				
Economical Sociology	М		1	1
Human Resources Management	F	26	9	35
Information system	М	35	12	47
Information system Lab	М	34	19	53
Labour Law	F	19	8	27
Local Government	M and F	44	11	55
Political Culture and Democracy	М	6	5	11
Qualitative methods applied in the local environment	F	11	3	14
Social History	F	3		3
Social Policy (advanced)	М	2	1	3
Economical Sociology (advanced)		1		1
Sociology of cultural processes	М	12	7	19
(advanced)			·	
Sociology of Development	М	3	1	4
Sociology of Innovation	F	17	6	23
Sociology of local communities	М	2	1	3
Sociology of Migration	F	6	5	11
Sociology of Organizations	М	52	20	72
(advanced)				
Sociology of technological	М	18	8	26
phenomena				
Sociology of work (advanced)	F	25	17	42
Space and culture	М	1	2	3
Territorial Planning	M and F	24	11	35
Sociology of war	М	3	1	4
Futures studies	М	1		1
Economical Sociology (advanced)	М	20	16	36
Sociology of the environment	F	12	6	18
Sociology of local communities	М	12	4	16
Cultural Anthropology	М	40	18	58
Future studies	М	35	15	50
Work and Organisation research	F	23	8	31
laboratory				
Analysis of territorial and	F	23	5	28
environmental policies			_	
Theories and methods of planning	М	12	7	19
and social planning		12	2	16
Sociology of tourism	F	13	3	16
Sociology of collective action	M		1	1

MOVASS Gender Structure of the Courses: gender of teachers and number of man and women students who passed each exam in a.y. 2013/14

Course	Teacher	Students F	Students M	Total
Social Policy	M	1	141	1
Social Policy (advanced)	M	28	2	30
Sociology of Organizations	M	16	1	17
(advanced)				
Sociology of migration	F	1		1
Human Resources Management	F	31	3	34
Administrative Law of Social Work	F and M	36	3	39
Economics and Management of	M and F	59	5	64
Social Services and Social				
Entrepreneurship				
Work Methodology for the Social	M	57	4	61
Services				
Research Methodology for the	M	43	2	45
Social Services				
Organisation of Social Services	M	36	4	40
(Advanced)				
Prevention and Rehabilitation of	M	39	3	42
Social Deviances				
Clinical Psychology of the Social	F	39	3	42
Services				
Sociology of cultural processes	М	3		3
(advanced)				
Sociology of work (advanced)	F	1		1
Sociology of the territory	F	2		2
Sociology of war	M	1		1
Sociology of innovation	F	3	1	4
Theories and Methods of Social	M	56	6	62
Planning				
Evaluation of Social Services	F	49	5	54

### 1.3.1.3 Credit Seminars

The SRS department organizes every year several Credit Seminars on different fields available to the students. The seminars in the academic year considered were 46, 3 of which with gender-related or gender dedicated subject:

- "Changing Families in Europe" (3 ECTS)
- "Gender Differences and Inequalities" (2 ECTS)
- "Stories of ordinary violence against women" (1 ECTS), gender dedicated and gender approach): the topic is typically a gender related subject, and in this case it was addressed with a gender perspective.

### 1.3.2 The analysis of research projects

In 2013 around 40 projects were active at SSH Department. This section will firstly presents an analysis of the project summaries highlighting the gender-related issues.

Then we will report the gender structure of each project in the table 2 included in the Annex II.

#### 1.3.2.1 Contents

Construction of a model Nursery for the Provincial Health Services: Implementation of a pedagogical and organizational model for the integrated system to support University parenting. There is no mention of gender related issues.

Project for the organizational improvement in a gender, equal opportunities and conciliation perspective - Agreement with Provincial Health Services of Trentino: Project aimed at the organizational improvement in a perspective of gender, equal opportunities and conciliation.

Survey on organizational wellbeing in the Local administration of Bolzano: Gender sensitive Language, but there is no reference to any gender approach or methodology.

Path of professional identity and gender differences in the Local Administration: The aim of the study is to collect and analyse the experiences and views of employees. By a gender perspective in the organizational context. In particular the research compares the experiences of man and women in dealing with colleagues and leaders of both sexes.

*IMMPARENTING - Immigration and parental care in Trentino:* The project employs qualitative and comparative methods to explore the relation between migration, social inclusion, maternity/paternity leave and personal identity and family.

UE ERC FAMINE - Families of Inequalities - Social and economic consequences of the changing work-family equilibria in European Societies: Beyond the descriptive approach towards inequality, the project investigates the structural base of different inequalities, implying processes of social stratification.

Gender differences Course – Local administration of Bozen: The course aims at analysing different gender perceptions in the organizational contexts, highlighting gender differences in the professional life.

Training Course "Education to gender and difference": The course deals with gender identity, difference and inequalities, and the role of education in overcoming gender stereotypes.

Gender, body and influence of the media: action research in the province of Trento: The project focuses on secondary education providing training laboratories on gender and media to schools.

REACTION - Networks of collective action interaction between online and offline. Design and application of a theoretical-methodological: The project analysed the use of networks and social media in the development of the women's movement "Se non ora quando?".

Educating for Equality: training course for educators of the private social: The project aims at training professionals experts in the field of gender differences, equal opportunities and the enhancement of cultural differences related to different educational settings (school, vocational training, social and educational services, etc.).

SICURTEMP: safety and wellbeing at work between old and new temporary contracts in the Province of Trento: The project studies the relationship between safety and wellbeing at work and that of old and new type of contracts, with a focus on sex, age, and ethnic differences.

The fertility of foreigners among reproductive choices, mobility and cultural patterns. Case studies from Trentino and Emilia Romagna: The project studies the growth related to the presence of migrants people in the northern Italy. It provides a focus on the fertility of migrant women and the social dynamics of social reproduction.

Thinking Smart Doing Gender: The project aims to understand the social dynamics in the city of Trento, which create an "intelligent" (smart) synergy between some of the key policy makers and stakeholders in the urban context. The goal is to create a participatory action change from a gender perspective.

Let's learn together!: The objective is to study gender stereotypes within families and teachers with the aim to enhance equal opportunities and gender awareness.

#### 1.3.2.2 Gender structure

The research at the SSH Department is organized through Units of Research (UR) composed by permanent staff. Each UR has a webpage describing the research areas of the Unit. We present below the tables containing the gender composition with an indication of the contractual positions of both male and female.

#### **Gender Structure of Units of Research at SSH Department**

Research Unit	Perm F Staff	Perm M staff	Temp F staff	Temp M staff
Center of Interdisciplinary Gender Studies - CSG	33	8	12	4
Center for Social Inequality - CSIS	1	5	1	3
Democracy and Global Governance - DEMOGLOB	3	3	1	0
Age's of life - eVita	1	2	0	0
Local DevelopmenT and Global Governance - LoG	0	2		
Research Unit on communication, organizational learning and aesthetics - RUCOLA	2	2	9	5
Migration scenarios and social changes - SMMS	1	1	0	0
Science and Technology in Society - STSTN	0	7	2	2
Values, Belonging, Democracy - VADem	2	9	4	0

As mentioned in the previous section, the research projects active at the SSH Department in 2013 were 44. The gender structure, reported for each project in the Annex II, is thus composed:

#### **Gender Structure of Research Projects at SSH Department**

Involvement in research projects of men with permanent position	22
Involvement in research projects of men with temporary position	17
Total	39
Involvement in research projects of women with permanent position	24
Involvement in research projects of women with temporary position	42
Total	66
Total	105

#### 1.4 COMPARISON BETWEEN SSH AND STEM DEPARTMENTS

#### 1.4.1 Gender content and composition in STEM and SSH Departments

In the conclusive remarks there is a first methodological issue to assess about the classification of a gender dimension in academic research and curricula: that is the epistemological definition of gender dimension in contents or approaches. A wide literature<sup>3</sup> already addressed the distinction between gender as a quantitative/qualitative variable or as an analytic category, overcoming the description of gender as a mere women's' issue (i.e. family, health, care etc). Furthermore, in the last years gender has been considered also a methodological and epistemic approach which can cross all the scientific fields in a mainstreaming way<sup>4</sup>.

Thus, the categorization of gender contents in research and curricula can be applied by distinguishing courses and projects which just mention gender as a variable, those which have gender as the core theme (not always easy to define) of their study, those which use feminist theories or methodologies and finally courses and projects which could address gender for their main themes but actually don't. At a deeper look in our case study, this distinction was not easy to highlight due to the different meanings given to "gender dimension" emerging both from the description of curricula and projects and from the responses to the web-survey we distributed to the teachers of MS courses in the SSH and STEM departments.

Concerning the gender dimension at the composition, we will try to read the data presented in this report to intersect the gender and scientific/academic positions of lecturers, going further the mere quantitative analysis of data collected.

## 1.4.1.1 The Department of Information Engineering and Computer Science Department

As predictable, at the STEM department we did not find any project or MS Course with a reference to gender (not even as variable). As reported in the Section 2, several transdisciplinary courses could potentially include gender as object or output: the Study of team work, HR management, Group Psychology, Medical technology and biology, Technology users, Analysis of consumer behaviour. Only one professor answered positively to the web-survey: a woman and psychologist who leads a transdisciplinary team of research within the department.

Concerning the research projects, there are several areas with a potential relevance for a gender dimension, which coincide with the fields of study just mentioned. But, as

<sup>&</sup>lt;sup>3</sup> Butler J., Scott J., Feminists theorize the political, New York/London, Routledge, 1992; Alcoff L., Potter E., *Feminist epistemologies*, New York/London, Routledge, 1993; Harding S., *The feminist Standpoint Theory Reader*, Routledge, London 2004; Schiebinger, L., *Has Feminism Changed Science?* Harvard University Press, London 1999; Harding, S. and McGregor, E. (1995) The Gender Dimension of Science and Technology, Paris: UNESCO; Namenwirth, M (1991): "Science Seen Through a Feminist Prism, in: Ruth Bleier (ed.), Feminist Approaches to Science, Teachers College, Columbia University.

<sup>&</sup>lt;sup>4</sup> Central European Centre for Women and Youth in Science, Why gendered science matters how to include gender dimension into research projects, http://www.cec-w ys.org/prilohy/aedc08b1/manual%20main%20body%20final.Pdf; Laurila, Pia and Kerry Young (2001). Gender in Research. Gender Impact Assessment of the Specific Programmes of the Fifth Framework Programme. An overview, Bradley Dunbar Associates Ltd. Directorate-General for Research.

reported in the previous sections, no project deals even indirectly with a gender dimension.

It is widely known the existing gap between the presence of women and men in the STEM disciplines. Indeed, at the DISI department this proportion is clearly confirmed, especially in regard to the permanent staff. Moreover, the amount of Women that have a temporary contract are proportionally relevant, proving that the "glass ceiling" tendency is still a reality, especially in the STEM field.

#### 1.4.2 The Department of Sociology and Social Research

In the beginning the difficulty to distinguish gender as a variable or gender as a perspective emerged clearly.

in the analysis of the MS courses syllabus. In each MS courses we found several training courses with gender-related contents but actually almost all of them do not mention gender neither in the title nor in the syllabus. Some just provide readings in which gender is treated, and some — principally in the Management of organizations and territorial networks MS — deal with topics where gender is clearly included as a variable (such as i.e. Sociology of work, Sociology of Organizations, Sociology of Migration) but it is not clear if it is also discussed as analytical category. Moreover, there are several courses dealing with subjects like care, health, social services, motherhood which do not adopt a gender perspective in their contents.

The difficulty on make such a distinction is reflected also within the responses of the web-survey distributed to all teachers in order to make visible gender contents where they were not explicitly named: in the SSH department, 10 affirmative responses out of 17 were referred to gender as a variable, and only 5 of them (all women) talked about gender as a perspective used during the classes. Just 1 (woman) stated that a gender mention was explicit in the syllabus.

Regarding the research projects, whose dimension is mostly local and has practical goals, we found 15 projects active in 2013 with gender-related contents and objectives. Most of them dealt with Gender education in local organizations, Migrations and Work. Here the gender perspective is much more clear and explicit and can be considered the core and the main objective of the projects themselves.

Concerning the research team composition, there is a substantial equity in the permanent staff, but between the temporary researches involved in the projects, there is a big majority of women.

#### 1.5 CONCLUSIONS

In the conclusive remarks, we will try to formulate some suggestions to better include a gender dimension in both the target department and more generally in the curricula and research of STEM and SSH fields of studies.

The analysis revealed a wide difference between the STEM and the SSH fields.

With reference to the first, emerged a relevant lack of gender contents and perspectives in curricula and projects. A gender training for teachers and researchers seems to be needed in order to identify the subjects where a gender dimension is not only desirable, but also useful, to enhance the methodologies and especially the outputs of the studies

and research in a gender perspective. For example, as the above-mentioned guidelines published by the European Commission and other institutional European documents suggest, it would be important to include in the ICT field a special attention to technology users, i.e. medical and informatics, to understand the different needs existing between women and men, at a social, economic and also biological level.

This is even truer concerning the research projects. Areas of study as medical technology, communication, security, informatics and their output in every field of society could consider a gender dimension both for their different objectives and for the technological and economic gap existing between men and women. Moreover, what emerged is that an interdisciplinary approach, sustained by the collaboration between different departments or units of research, can achieve the goal of intersect hard sciences and gender issues.

Concerning the wide gap in the gender composition of students and teaching and research staff – despite the attention paid to the gender stereotypes described in the guidebook for students mentioned in the Section 2 – we found that the disproportion of women and men still persists. Nowadays, more female students and PhD candidates enrol the STEM courses and this trend must be sustained by orienting and incentivizing the interest of high school students to these university paths. Some professors interviewed in previous phases of the GARCIA project claimed that some actions are already provided, such as female quotas at the access to Master Courses and PhD and financial incentives to the enrolment of female students. Moreover, at the DISI department a relevant awareness on the gender gap emerged: in several interviews with professors the issue regarding the lack of women in all stages of the academic career was strongly perceived.

As regards the SSH field, in the last years and due to the European intervention and orientation in higher education paths, gender has been included in many curricula, training course etc. But a question raises after the analysis of curricula and research projects at the DSRS department: did it change the methodological approaches, objectives, and perspectives? What we found is that often gender is considered as a dichotomic variable. In order to enhance a broader and more articulated gender perspective, specific workshops, training and toolkits could be elaborated. This kind of initiatives require the support of the management level at university, with the aim to overcome the perspective of a (male dominated) neutral science<sup>5</sup> and to integrate a gender perspective in research and teaching.

<sup>5</sup> Mertus, Julie. 2007. "Teaching Gender in International Relations." *International Studies Perspectives* 8 (3): 323–25; Atchison, Amy L (2013): "The Practical Process of Gender Mainstreaming in the Political Science Curriculum," *Politics & Gender*, 9 (2): 228- 235; Morley, Louise (2007): "Sister-matic: Gender Mainstreaming in Higher Education." *Teaching in Higher Education* 12 (5/6): 607–20.

#### Appendix I – DISI Research Projects – Gender Structure

Trustworthy Eternal Systems via Evolving 2 1 3 4 Software, Data and Knowledge Mobility and Tourism in Urban Scenarios 1 NESSoS: Network of Excellence on Engineering 1 1 4 Secure Future Internet Software Services and Systems 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Title	Perm M	Perm F staff	Temp M	Temp F staff
Software, Data and Knowledge   Mobility and Tourism in Urban Scenarios   1			FStaff		FStair
Mobility and Tourism in Urban Scenarios  NESSOS: Network of Excellence on Engineering Secure Future Internet Software Services and Systems  Effects+: European Framework for Future Internet Compliance, Trust, Security and Privacy through effective clustering Easy Programming of Integrated Wireless Sensor Networks Coordinated approach to the European effort on audio-visual search engines Open Mashup Enterprise service platform for LinkEd data in The Telco domain Computational Intelligence in Lifestyle Management Infrastructure Knowledge, Awareness and Prediction of man, machine, material and method in manufacturing Secure and Trustworthy Composite Services 1 2 3 Foundations for Software Evolution 1 8 8 8 Devices for Assisted Living Alliance Permanent Access to the Records of Science in Europe Network Socio-Economics meets Security_OTH 1 3 5 Business Process Modeling for Participatory Enterprises, Organizations, and Public Administration Bodies Coordination and Support Action 1 Implementation of India-Trento Program for Advanced Research — Phase II Government of India, Ministry of Science and 1 Technology + PAT Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+ 2 1 Development of technical video analysis in the implementation of an advanced system of developed video surveillance system Human-enhanced time-aware multimedia 3 16 TeW.IP (Wireless Telecontrol – public lighting)	, ,	2	1	3	4
NESSOS: Network of Excellence on Engineering Secure Future Internet Software Services and Systems  Effects+: European Framework for Future Internet Compliance, Trust, Security and Privacy through effective clustering Easy Programming of Integrated Wireless Sensor Networks  Coordinated approach to the European effort on audio-visual search engines  Open Mashup Enterprise service platform for LinkEd data in The TEIco domain  Computational Intelligence in Lifestyle 1 1 2 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1		
Secure Future Internet Software Services and Systems  Effects+: European Framework for Future Internet Compliance, Trust, Security and Privacy through effective clustering  Easy Programming of Integrated Wireless 1 2 2 2 Sensor Networks  Coordinated approach to the European effort 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1		
Systems  Effects+: European Framework for Future Internet Compliance, Trust, Security and Privacy through effective clustering  Easy Programming of Integrated Wireless Sensor Networks  Coordinated approach to the European effort on audio-visual search engines  Open Mashup Enterprise service platform for LinkEd data in The TElco domain  Computational Intelligence in Lifestyle Management Infrastructure  Knowledge, Awareness and Prediction of man, machine, material and method in manufacturing Secure and Trustworthy Composite Services  Foundations for Software Evolution  Devices for Assisted Living  Alliance Permanent Access to the Records of Science in Europe Network Socio-Economics meets Security_OTH  Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action  Implementation of India-Trento Program for Advanced Research - Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol – public lighting)  1 1  1 1  1 1  1 2  1 1  2 3  3 5  5 5  5 6  5 7  5 7  5 7  5 7  5 8  5 8  5 8  5 9  5 8  5 9  5 9  5 9		1		1	4
Effects+: European Framework for Future Internet Compliance, Trust, Security and Privacy through effective clustering Easy Programming of Integrated Wireless 1 2 2 2 Sensor Networks Coordinated approach to the European effort 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
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Privacy through effective clustering Easy Programming of Integrated Wireless Sensor Networks Coordinated approach to the European effort on audio-visual search engines Open Mashup Enterprise service platform for LinkEd data in The TElco domain Computational Intelligence in Lifestyle Management Infrastructure Knowledge, Awareness and Prediction of man, machine, material and method in manufacturing Secure and Trustworthy Composite Services 1 2 3 Foundations for Software Evolution 1 8 8 Evices for Assisted Living 2 111 2 Alliance Permanent Access to the Records of Science in Europe Network Socio-Economics meets Security_OTH 1 3 5 Business Process Modeling for Participatory Enterprises, Organizations, and Public Administration Bodies Coordination and Support Action Implementation of India-Trento Program for Advanced Research – Phase II Government of India, Ministry of Science and Technology + PAT Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+ Development of technical video analysis in the implementation of an advanced system of developed video surveillance system Human-enhanced time-aware multimedia 3 16 5 Search TEW.IP (Wireless Telecontrol – public lighting)	•	1			1
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Open Mashup Enterprise service platform for LinkEd data in The TElco domain  Computational Intelligence in Lifestyle Management Infrastructure  Knowledge, Awareness and Prediction of man, machine, material and method in manufacturing  Secure and Trustworthy Composite Services 1 2 3  Foundations for Software Evolution 1 8 8 8  Devices for Assisted Living 2 11 2  Alliance Permanent Access to the Records of Science in Europe Network  Socio-Economics meets Security_OTH 1 3 5  Business Process Modeling for Participatory 1 10 1  Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action 1 1  Implementation of India-Trento Program for Advanced Research — Phase II  Government of India, Ministry of Science and 1 Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+ 2 1  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5  search  TEW.IP (Wireless Telecontrol – public lighting) 1		_		_	
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Management Infrastructure Knowledge, Awareness and Prediction of man, machine, material and method in manufacturing Secure and Trustworthy Composite Services 1 2 3 Foundations for Software Evolution 1 8 8 8 Devices for Assisted Living 2 11 2 Alliance Permanent Access to the Records of Science in Europe Network 500-Economics meets Security_OTH 1 3 5 Business Process Modeling for Participatory 1 10 1 Enterprises, Organizations, and Public Administration Bodies Coordination and Support Action 1 Implementation of India-Trento Program for Advanced Research — Phase II Government of India, Ministry of Science and Technology + PAT Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System EFFECTS+ 2 1 Development of technical video analysis in the implementation of an advanced system of developed video surveillance system Human-enhanced time-aware multimedia 3 16 5 TEW.IP (Wireless Telecontrol — public lighting) 1					
Knowledge, Awareness and Prediction of man, machine, material and method in manufacturing  Secure and Trustworthy Composite Services 1 2 3  Foundations for Software Evolution 1 8 8 8  Devices for Assisted Living 2 11 2  Alliance Permanent Access to the Records of Science in Europe Network Socio-Economics meets Security_OTH 1 3 5  Business Process Modeling for Participatory 1 10 1  Enterprises, Organizations, and Public Administration Bodies Coordination and Support Action 1 1  Implementation of India-Trento Program for Advanced Research – Phase II Government of India, Ministry of Science and Technology + PAT 1 3  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System EFFECTS+ 2 1  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system Human-enhanced time-aware multimedia 3 16 5  TEW.IP (Wireless Telecontrol – public lighting) 1	Computational Intelligence in Lifestyle	1		1	2
machine, material and method in manufacturing  Secure and Trustworthy Composite Services  Foundations for Software Evolution  Devices for Assisted Living  Alliance Permanent Access to the Records of Science in Europe Network  Socio-Economics meets Security_OTH  Business Process Modeling for Participatory Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action  Implementation of India-Trento Program for Advanced Research – Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol – public lighting)  1 1 2 3 3 5 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Management Infrastructure				
Manufacturing   Secure and Trustworthy Composite Services   1	Knowledge, Awareness and Prediction of man,	1		1	1
Secure and Trustworthy Composite Services  Foundations for Software Evolution  Devices for Assisted Living  Alliance Permanent Access to the Records of Science in Europe Network  Socio-Economics meets Security_OTH  Business Process Modeling for Participatory Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action  Implementation of India-Trento Program for Advanced Research – Phase II Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol – public lighting)  1 1 2 3 3 5 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	machine, material and method in				
Foundations for Software Evolution 1 8 8 8  Devices for Assisted Living 2 11 2  Alliance Permanent Access to the Records of 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	manufacturing				
Devices for Assisted Living  Alliance Permanent Access to the Records of Science in Europe Network  Socio-Economics meets Security_OTH  Business Process Modeling for Participatory Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action  Implementation of India-Trento Program for Advanced Research – Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol – public lighting)  1 3 12 2 11 2 2 11 2 2 11 2 2 11 2 2 11 2 2 11 2 2 11 2 2 11 2 2 11 2 2 11 2 2 11 2 2 11 2 2 2 11 2 2 11 2 2 2 11 2 2 2 11 2 2 2 1 1 2 2 2 1 1 2 2 2 1 1 2 2 2 1 1 2 2 2 2 1 1 2 2 2 2 1 1 2 2 2 2 1 1 2 2 2 2 2 1 1 2	Secure and Trustworthy Composite Services	1		2	3
Alliance Permanent Access to the Records of Science in Europe Network  Socio-Economics meets Security_OTH 1 3 5  Business Process Modeling for Participatory Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action Implementation of India-Trento Program for Advanced Research — Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol — public lighting)  1 3 5  1 1 3 5  1 1 0 1  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Foundations for Software Evolution	1		8	8
Science in Europe Network  Socio-Economics meets Security_OTH  Business Process Modeling for Participatory Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action  Implementation of India-Trento Program for Advanced Research – Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol – public lighting)  1  10  1  10  1  10  1  1  1  1  1  1	Devices for Assisted Living	2		11	2
Socio-Economics meets Security_OTH 1 3 5  Business Process Modeling for Participatory 1 10 10 1  Enterprises, Organizations, and Public Administration Bodies Coordination and Support Action 1 1 1  Implementation of India-Trento Program for Advanced Research – Phase II Government of India, Ministry of Science and Technology + PAT 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Alliance Permanent Access to the Records of	1			1
Business Process Modeling for Participatory Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action Implementation of India-Trento Program for Advanced Research – Phase II  Government of India, Ministry of Science and Technology + PAT Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol – public lighting)  1  1  10  1  10  1  10  1  10  1  1  1	Science in Europe Network				
Enterprises, Organizations, and Public Administration Bodies  Coordination and Support Action  Implementation of India-Trento Program for Advanced Research – Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol – public lighting)  1	Socio-Economics meets Security_OTH	1		3	5
Administration Bodies  Coordination and Support Action  Implementation of India-Trento Program for Advanced Research – Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting)	Business Process Modeling for Participatory	1		10	1
Coordination and Support Action 1 1 1 1 1 1 1 1 1 1 Implementation of India-Trento Program for Advanced Research – Phase II	Enterprises, Organizations, and Public				
Implementation of India-Trento Program for Advanced Research – Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia search  TEW.IP (Wireless Telecontrol – public lighting)  1	Administration Bodies				
Advanced Research – Phase II  Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+ 2 1  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting) 1	Coordination and Support Action	1			1
Government of India, Ministry of Science and Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting)		1			
Technology + PAT  Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting)	Advanced Research – Phase II				
Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+ 2 1  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5  search  TEW.IP (Wireless Telecontrol – public lighting) 1	•	1			
Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+ 2 1  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting) 1					
and Quantifying Risk through an Integrated Monitoring and Modeling System  EFFECTS+ 2 1  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5  search  TEW.IP (Wireless Telecontrol – public lighting) 1	, ,	1		3	
Monitoring and Modeling System  EFFECTS+  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting)  1	- ·				
EFFECTS+ 2 1  Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting) 1	, ,				
Development of technical video analysis in the implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting) 1		2			1
implementation of an advanced system of developed video surveillance system  Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting) 1					1
developed video surveillance system       Human-enhanced time-aware multimedia     3     16     5       search       TEW.IP (Wireless Telecontrol – public lighting)     1		1			
Human-enhanced time-aware multimedia 3 16 5 search  TEW.IP (Wireless Telecontrol – public lighting) 1					
search TEW.IP (Wireless Telecontrol – public lighting) 1		2		16	F
TEW.IP (Wireless Telecontrol – public lighting) 1		3		10	) 5
				1	
	demonstration. Agreement for monitoring			_	

Title	Perm	Perm	Tomp	Tomn
Title	M	F staff	Temp M	Temp F staff
	staff		staff	
activities				
"Study detention standoff IED via modulated	1			
electromagnetic emissions "				
Social Patterns: Modeling and Analysis	1		1	
Development of algorithms for generating	1		1	
maps of snow cover of the entire territory	_		_	
Trentino from satellite images				
An early stage training network in enabling	1		2	
technologies for GREEN radio				
Privacy aware content filtering for future	1			
pervasive environments				
Highly-complex and networked control	2		2	
systems				
National Funding for Basic Research	1		1	1
Language Resources for Portable Multilingual	1		2	3
Spoken Dialogue Systems				
Event-centric Multimedia content Access	4		1	
Platform				
A Platform to Simplify the Reorganization and		1		
the Continuous Improvement of Business				
Processes.				
ANCHISE Enabling Approach in the care of	1		1	1
persons with Alzheimer's disease				
Algorithms and techniques for the analysis and	1		1	
processing of information and Extra-Vehicle				
Mount Vehicle Mount				
Manual Work	1		1	2
Neuroinformatics for Clinical Studies	1			
Innovation Cockpit Evaluation and User	1			1
Modeling Study				
Harvesting of Social Knowledge with the	1		5	
Enterprise				
Research Project for the Development of a		1	2	1
Platform for Innovative Management of Tourist				
Experience				
Advances SMT Techniques for Word-level	1		2	
Formal Verification				
Smart Campus				
Novel Metamaterials for Industrial, Medical	1		6	3
and Scientific Applications				
An innovative framework for the integration of	1			1
multi-source data to determine soil moisture				
and evapotraspiration at high resolution in				
Alpine regions	_			
Monitoring of the cryosphere in alpine areas within EUREGIO	1			
Sentiment Analysis from YouTube (Google	1			
Faculty Award 2011)				
racuity Awaru 2011)		<u> </u>		]

Title	Perm M	Perm F staff	Temp M	Temp F staff
	staff		staff	
Linguistically Motivated Semantic aggregation engines	1		3	4
Learning Techniques in Relational Domains and Their Applications	1		3	
ARCODA – Feasibility study for the realization of a system for recognizing objects based on			1	
Android platform			4	1
Citizen Safety  MEPI – Medical Equipment Profiling and	1		1	1
Identification System	1		1	
MARGINE2 – Monitoring and reporting of road	1			
crossings of mammalian for the prevention of investments	_			
Safety in the city	1		3	
SISAR 2012 – Feasibility Study 'of a System of	1			
Automatic Interpretation of SAR Images – Phase 2	_			
Pulse Shaping – Strategies of Pulse Shaping in the synthesis of Time-Modulated Arrays for	1			
Radar and Wireless Systems				
Organisation of the 39th International Conference on Very Large Databases	2		1	1
Confine – Community Networks Testbed for the Future Internet	1		5	
CYSPA – Cyber Security Protection Alliance	1		1	
SECCORD – SECurity and trust COoRDination	1			3
and enhanced collaboration				
Security and Privacy for location-based services			1	
<ul> <li>Location-dependent key generation</li> </ul>				
Active Healthy Ageing Platform – TA1323 Showcase Applications	1		1	
Entrepreneurial Stimulation – Best practices outside Europe	1		1	
Innovation Radar- emotional Wellbeing	1			
Virtual Social Gym -providing basic infrastructure for user studies	1		3	
Security and Privacy -Technical Major execution S&P – entry+exit	1			
Entrepreneur Outreach and Public Dissemination	1			
FITTING- Extended federation	1			
Technical Major Internet Technologies- T1303A-Technical Major execution ITA – entry+exit	1			
Local operations- Local Quality Assurance	1			
SmartSociety – Hybrid and Diversity-Aware Collective Adaptive Systems: When People Meet Machines to Build a Smarter Society	2		19	10

Title	Perm M	Perm F staff	Temp M	Temp F staff
	staff		staff	
Testbeds to CPS Testbeds	1			1
Software Defined and Virtualized Networks	2		1	
Embedded Systems Master Program	1			
Catalyst Lead I&E Module	1			
Intel Poland Project	1			
Technical Major in Service Design Technical	1			
Major execution DMT – exit				
Master School Summer Program	1			
Citizen Safety – Crowd motion analysis	1		1	
The Interaction Toolkit – Live Monitoring-	1			
Utrento Contribution				
NSM 12116 Event-centric Multimedia content-	1			
T1301A-Event-based content indexing and				
serious games for social photography and fashion				
DSL 13108 EIT Label I&E Education-T1318A-	1		9	2
Trento doctoral candidates	_			
DSL 13109 Running DTC-T1302A-Trento DTC	1			
Mappa dei Bisogni	1			
"Study of Privacy issues on publishing data of	1			1
public administration in open format and				
methods of using them in a manner that				
respect the privacy of the citizens."				
PRIN 2010	3		1	
Sebe	1			
Picco				
Cyber-Physical European Roadmap and	1		1	
Strategy				
Cyber-security And Privacy research	1		1	1
challenges, Innovation Technologies processes				
and market AnaLysis				
Empirical Framework for security design and	1			2
economy tradeoff Link Open Data for deepQA			1	
CIVIS	1		5	2
Evolution of Shared SEmaNtics in	1		3	2
Computational Environments	1			
Making Sense of Human – Human	1		5	2
Conversation				
crossLingual crossMedia knowledge extraction	1		2	1
COSMAN	1		1	
PROGETTO 3DV	1			
MOBILE FOR TOURISM "M4T	1		1	
Ronchetti	1			
CRF-SCPA	1			
CIT JOI A		<u> </u>	<u> </u>	

Title	Perm M staff	Perm F staff	Temp M staff	Temp F staff
Structural input/output for IR and NLP			1	
Riccardi	1			
Ronchetti	1			
Wireless community networks	1			
HIT-Needings map	1			
Comitato Organizzatore Universiadi 2013	1			
IEEE 2013 Workshop on Environmental, Energy and Structural Monitoring Systems	1		1	
Ja-Ye Service Agreement	1			
A metagenomic approach to detail prebiotico infant gut microbes vertically acquired from breast-milk and environmental sources and their effect on infant gut microbial colonization	1		1	1
Video Quality Driven Multimedia Streaming in Mobile Wireless Networks	1		1	
Italia – Egitto 2013-2016	1		2	
GeoNetwork – catalog application to manage spatially referenced resources	1			
LiDAR data and hyperspectral FORLIDAR according to the methodology for the verification of methods for updating the inventory of private forests	1			
Giunchiglia	1		1	
Big Data, aspetti di implementazione giuridica	1			1
Giunchiglia	1		4	
Big Data – platform based on state-of-the-art technologies and techniques	1			
Active Ageing at Home	1		1	1
Total	123	190	3	90

Appendix II – DSRS Research Projects – Gender Structure

Project Title	M IND	M temp	tot M	F IND	F temp	tot F	Tot
Construction of a model							
Nursery for the Provincial							
Health Services	0	0	0	0	2	2	2
Project for the organizational							
improvement in a gender,							
equal opportunities and							
conciliation perspective	0	0	0		7	7	7
Survey on organizational							
wellbeing in the Local							
administration of Bolzano	1	1	2	1	5	6	8
Path of professional identity							
and gender differences in the							
Local Administration	0	0	0	1	0	1	1
Map of needs	0	0	0	1	0	1	1
Provincial Health Services							
Trentino - Improving							
organizational enhancement in							
a gender perspective, equal							
opportunities and conciliation	0	0	0	1	7	8	8
Modelling of a comprehensive			_		-		
system of guidance, consistent							
with the professional needs							
expressed by the territory and							
with the lines of the provincial							
planning	1	0	1	1	0	1	2
Gender differences Course	0	0	0	2	0	2	2
Training course "Education to	0		0				
gender differences"	0	0	0	1	0	1	1
Survey on organizational	-		0				
wellbeing in the Local							
administration of Bolzano -							
final intervention	1	0	1	0	0	0	1
Tavolo PAT- Forze dell'Ordine	-						
sulla costituzione di un sistema							
informativo per la redazione							
delle statistiche riguardanti la							
violenza di genere	0	1	1	0	0	0	1
Medical Records of the Citizen							
IMMPARENTING - Immigration	0	1	1	1	0	1	2
and parental care in Trentino	0	0	0	0	1	1	1
FAMINE - Families of	U						
Inequalities - Social and							
economic consequences of the							
changing work-family equilibria							
in European Societies	1	4	5	1	3	4	9
	т	_ +	ر	1	٦	+	9
Development of tools and							

		1	1	1		I	
"Science, Technology and Society"							
Flexibility and social security in the local labor markets: the							
role of public institutions,							
private institutions and the							
third sector. Comparative							
assessment of the governance							
of inequality and policy	_	_	_	_	_	_	_
implications.	0	0	0	0	0	0	0
Inequality of educational							
opportunities in the Province of							
Trento. Towards a							
democratization of education	0	0	0	0	1	1	1
Gender, body and influence of							
the media: action research in							
the province of Trento	0	0	0	2	1	3	3
A Union increasingly flexible?		1					
The Lisbon Treaty and beyond	1	0	1	0	2	2	3
New models of							
constitutionalism in an							
enlarged Europe - Common							
sense as a new model of							
assumption of constitutional							
justice.	2	0	2	0	0	0	2
The theory of the substance of			_				
Brentano	1	0	1	1	1	2	3
"Information and	_		-	_	_	_	3
Communication Technology							
(ICT) for the development of							
telemedicine for the territorial							
health emergency in remote							
	1	1	2	0	0	0	2
areas.	1	1		U	U	U	
The heritage of Trentino:	_	0		0	1	4	1
religion, culture, nature	0	0	0	0	1	1	1
REACTION - Networks of							
collective action interaction							
between online and offline.							
Design and application of a				_			
theoretical-methodological	0	0	0	0	1	1	1
COPOLIS-Constitutional Politics							
in Post-Westphalian Europe	0	2	2	0	2	2	4
Educating for Equality: training							
course for educators of the							
private social	0	0	0	1	1	2	2
SICURTEMP: safety and well-							
being at work between old and							
new temporary contracts in the							
Province of Trento	0	1	1	2	2	4	5
Active aging, Empowerment,							
Technology, Health	1	1	2	0	0	0	2
The fertility of foreigners							
among reproductive choices,	1	0	1	1	1	2	3
and of the desired choices,	<u> </u>						

		T	ı	ı	1		
mobility and cultural models.							
Case studies from Trentino and							
Emilia Romagna							
The Italian Foreign Policy of the							
new challenges of the							
international system: actors,							
institutions and policies	2	0	2	0	0	0	2
Social affiliations, beliefs and							
participation in university							
education: an experiment							
integrated with a longitudinal							
survey	6	1	7	1	1	2	9
The changing political							
representation in Italy: the							
decision to vote in the election							
cycle 2013-2015	0	2	2	0	0	0	2
Thinking Smart Doing Gender	0	1	1	2	1	3	4
SICIS – City System for Social							
Inclusion and the fight against							
poverty	1	0	1	1	0	1	2
Let's learn together	0	0	0	1	0	1	1
Monitoring of the decision-							
making post diploma and							
assessment of impact of							
interventions to support access							
to university education of							
young people in need and							
deserving	1	0	1	0	0	0	1
Total	22	17	39	24	42	66	105

#### 2 BELGIUM

#### 2.1 INTRODUCTION

For the UCL, Belgian context, the mapping of the gender dimension in research and curricula has taken on a slightly different form for analysis. For the research part, we have been able to identify an array of research projects in various SSH centres in IACCHOS, the Garcia department for SSH. However, for STEM, the key word search that we effectuated via the internal browser has not elicited any intelligible filtering of STEM projects; it seems technically impossible at this stage to identify projects in the five poles of research areas of ELI, our Garcia STEM department, which is affiliated with numurous faculties and centres. Therefore, the identification of gender-related STEM projects was for us an impossible task to accomplish, as the browser did not recognize any genderrelated key words. And going through other channels, such as contacting staff in order to retrieve project information turned out to be an insurmountable hurdle, as there are more than 200 permanent and non-permanent staff members affiliated with ELI. Our project colleague Caroline Vinke, who works in the STEM department moreover, advised us against a collective email addressed to STEM staff in terms of gender-related projects, as gender is simply not in the STEM working vocabulary, and may not elicit any useful identification of project material, unless we do a very throurough and individual-person orientated request, which would take a lot of time than what we have at our disposal. We have therefore limited our mapping of gender dimension in research to SSH projects, which however are sometimes situated in interdisciplinary centres aimed at projects involving also STEM researchers or lecturers in teaching programmes. We will however propose some measures or propositions as to potential actions to undertake for the STEM departments and projects aimed at sensitizing towards gender. We have been able to retrieve from the various groups of interviews in other WPs some little useful information or indications about the gender dimension in research experienced by women and men researchers in permanent and non-permanent positions. This information has served to give some indications about potential actions in the STEM department.

As the two Garcia departments, IACCHOS (SSH) and ELI (STEM) are both research departments composed of various research centres, and in ELI's case, of five poles of research, comprising different faculties and departments, teaching is rather centred around faculties and not IACCHOS or ELI departments as such. We have therefore not been able to locate courses or lecturers related to SSH or STEM fields within IACCHOS or ELI only, but rather have given a broad repertoire of courses that encompass gender dimension in general in SSH fields, and in more rare cases, interdisciplinary courses touching on STEM, as well as sometimes SSS. The reason for adopting this repertoire is that generally key words were used to trace or map the courses, and "gender", or "gender-related" key words often did not elicit any results for STEM courses. Rather we have focussed on certain specific Master's courses, which are conceived with a genderorientated or gender-related objective, or have indirectly gender-related content, and which are sometimes interdisplinary (SSH, STEM, SSS). The third section we have comprised the list of courses that have been selected and have given at the same time the discursive analysis for the gender-related courses. There is also a list of lecturers, and their affiliations to research centres, which are partly dedicated to gender orientated research, as will be described in 1.1. There are some courses that are both taught on the Bachelor as well as Masters level, and we have at UCL an important list of courses that are explicitly gender-related, which are only destined for Bachelors, which we have not included in the list of courses that we analysed.

## 2.1.1 Research entities, within which the projects and some lecturers/teaching are situated

In UCL, research is conducted in different types of structures and modes of functioning; institutes, centres, poles, laboratories etc. We have identified some research centres, which have an axis particularly on « gender », which is carried out by research teams across their different activities. There are of course other researchers in other centres or institutes, who may be conducting research on gender explicitly or implicitly, but who cannot clearly be identified in terms of research units. The following inventory of entities are based on informations available via the UCL website, as well as completed with additional information obtained by respresentatives of entities.

## 2.1.1.1 GREG: Research group for Gender Studies (Groupe de Recherche en Etudes de Genre)

Created in 25 february 2014 by an initiative of the UC-Elles, the GREG, which is situated within IACCHOS, is the only research unit specifically dedicated to research in matters of gender. It proposes an interdisciplinary perspective upon gender related questions, which take shape in several recent research projects. Its main objectives are the following:

- Networking persons working on gender and optimizing synergies.
- Incerasing interdisciplinarity
- Theoretical reflection about questions that are effectively raised with a gender perspective, which has a real interdisciplinary approach.
- Promoting the visibility of research projects: bringing to notice and value the existing research on gender and creating an expertise.
- Contribution through research to an institutionalization of gender studies
- Supporting and reinforcing teaching in gender studies.
- Making a place and linking research and teaching in gender studies in Bachelors 2 and 3.
- Encouraging research in the Framework of the 3rd cycle of study (PhD)
- Enhancing reflection by the création of a doctoral school.

Research axes include: Anthropology, Bioethics and Medecin, Communication, Developpement, Law, Economy, History, Literature, Philosophy, Psychology, Work Studies, Natural Sciences, Sociology, Theology and religious studies.

#### 2.1.1.2 Other research entities

Although the questions about gender are not specifically the object of research of the following entities, there are themes and approaches that may touch gender in multiple

indirect or direct ways. The following list of entities has mentoined gender as a topic in their website presentation. Other entitites are conspicous in particular gender related research conducted by their members, but which are not always enlisted in the website.

- CIRFASE - Interdisciplinary centre of research on families and sexualities (Centre interdisciplinaire de Recherche sur les Familles et les Sexualités)

With a pluridisciplinary perspective, the CIRFASE develops research on questions related to family, to the couple, and to sexuality. It covers numerous disciplinary fields from sociology, pscyhology as well anthropology, demography, law, history, psycho-analysis and sexology. Questions on gender are directly related to a series of research projects: aging; mobility and social links; articulation of professional and family life. A particular focus, among others, is upon gender.

- CIRTES - Interdisciplinary centre of research on work, state and society (Centre Interdisciplinaire de Recherche Travail, État et Société)

The **CIRTES** is an interdisciplinary research centre with the objective of analysing unequal social relations in the world of work, their effect upon society and Policy, or social practices which are confronted by them. Numerous researchers have a gender dimension in their research work.

- CISMOC - Interdisciplinary cente of Islamic studies in the contemporary world (Centre interdisciplinaire d'études de l'Islam dans le monde contemporain)

The program for 2013-2017 of the CISMOC intends to explore in various ways the contemporary processes linked to globalisation and the way in which these are influenced by and influence Islam and contemporary societies.

- DEMO - Centre of research on demographies and societies (Centre de recherche en démographie et sociétés)

This research regroups specific questions on populations. It is organized around several classic objects of demography: fecundity and families, gender relations, intergenerational relations and againg, health and mortality, migrations and spatial redestribution of populations.

- DVLP - Centre of development studies (Centre d'études du développement)

Questions of gender and of development are one of five principle thematic axes highlighted by the centre. The research projects conducted in this axis aim at making visible the role of women as actors in changing societies.

- GRIAL - Interdisciplinary research group on Latin America (Groupe de Recherches Interdisciplinaires sur l'Amérique Latine)

This research group is attached to the Centre of development studies, and promotes an interdisciplinary reflection upon different aspects and themes regarding the latin-american region, amongst which some research focuses on "Gender and developpement".

- GIRSEF - Interdisciplinary group for research on socialisation, education and formation. (Groupe interdisciplinaire de recherche sur la socialisation, l'éducation et la formation)

This research centre develops research in the areas of education, formation and the study of professional groups. Its research activities are focussed around three axes. In its third, there is a focus upon "life paths, formation and professions", amongst which researchers are interested in examing the recomposition of life cycles, with a particular attention on gender related differences.

- LaHRIS - Laboratory of history studies (Laboratoire de recherches historiques)

This laboratory focusses on varied themes, amongst which is also the history of gender and its dialectics; its social and cultural results (men, women, institutions and beliefs).

- MIND - Group of research on mobility, interculturality and diversity (Groupe de recherche Mobilité, Interculturalité et Diversité)

MIND is a transversal research group which assembles researchers in IACCHOS, who are working on mobility, interculturality and diversity in contemporary societies. This transversal research group has a cross-section of perspectives from anthropolgy, to demography, history and sociology. It crosses questions on migration, interculturality with those of gender.

- HELESI - Centre of Health, Ethics, law, Economy and Social Issues (Centre d'éthique médicale)

This interdisciplinary centre studies ethical, econmical and public health questions gleaned from bioethics. One of its axis is to cross examine bioethical with gender questions.

 CESPOLE - Centre of political and comparative sciences. (Centre de science politique et politique comparée)

The objective of CESPOL is politics in its different dimensions: interactions amongst political, social actors, citizen-electives and political/state institutions; the decision-making in politics and their results. Some research cross examines gender and political behaviour.

LAAP - Laboratory of prospective anthropology (Laboratoire d'anthropologie prospective)

In this centre, the object of research is the analysis of contemporary social transformations and their consequences. There is an axis of research entitled "Anthropology of space: relations to the body, parenting, spaces of life and of precariousness", which cross examines multiple questions of gender.

- Centre of psychology and religion (Centre de psychologie de la religion)

At the heart of this centre, the researchers examine notions such as the religious experience, moral judgement via the prism of culture and gender.

#### 2.1.2 List of research projects ongoing in 2013

The list of ongoing projects including a gender dimension was extracted (by our gender appointee Edithe Antoine) for the year 2013 based on a key word search. Some supplementary information was given by research centre directors, which was not retrievable via the website. The enlisted projects have started or are ongoing in the years 2012 and 2013. The doctoral theses are not included in this list, of which there are around 12 that are gender related in 2013, but which do not fall into the project funding amount required for this task. Generally, the exact funding amounts for the projects were not accessible to us; however, the projects enlisted here do fall into the category indicated for this task, externally state or internationally funded projects, over 200'000 Euros.

1) Title: The participation of men in family work. Which conséquences for their intention of fecundity? - La participation des hommes au travail familial. Quelles conséquences sur leurs intentions de fécondité ?

Centre of research: DEMO, one female researcher (senior researcher/academic and junior postdoc)

Funding: FSR

Length of project: 01/10/2013 - 30/09/2017

2) Title: Life course events and well-being. The importance of family obligations and support

Centre of research: DEMO, two female researchers (senior researcher/academic and junior postdoc)

Funding: Bourse Académie Louvain – Postdoctoral research

Length: 09/2013-09/2015

3) Title: Why are women more present in social enterprises? A comparative analysis of social enterprises impulsed by women, by men and mixed in France

Centre of research: CIRTES (two female researchers, one senior and one junior postdoc)

Funding: PAI - "If not for profit, for what, and how?" financed by the Belgian Research Policy - Recherche postdoctorale.

Length: 01/02/2013 - 01/04/2015

4) Title: Interference of private and Professional life in the access to an academic career. The case of scientists of FNRS - *Interférence vie privée et vie professionnelle dans l'accès à la carrière académique. Le cas des chargés de recherche du FNRS* 

Centre of research: CIRFASE (two male researchers, one senior researcher and one junior postdoc)

Funding: FNRS - Recherche postdoctorale

Length: 01/09/2013 - 31/12/2014

5) Title: Gendering the academy and reseach: combating career instability and asymmetries (GARCIA)

Centre of research: CIRFASE (one male senior researcher, one female senior researcher, one female junior postdoc)

Funding: European Union, FP7 Length: 02/2014 – 02/2017

Partners: Universita degli Sudi di Trento; Italy - Stichting Katholieke Universiteit, The

Netherlands,Université de Lausanne, Suisse - Joanneum Research Forschungsgesellschaft Mbh, Austria - Znanstevenoraziskovalni Center Slovenske Akademije Znanosti in Umetnosti, Slovenia

6) Title: Birth: which arbitrage. Work/family, modes of taking care of children? - La naissance: quels arbitrages. Travail/famille.modes de garde?

Centre of research: CIRFASE (one male senior researcher) & one male researcher France (INED), female researcher France (LISE-CNAM)

Funding: ANR Veniromond France

Length: 2011 - 2015

7) Title: How can social protection systems contribute to more sustainable working careers over the life of men and women?

Centre of research: CIRTES (one female senior researcher)

Funding: Eurofound Length: 2013 – 2014

8) Titre: The interference between Professional and private life (family in particular) in the development of the scientific career - L'interférence de la vie professionnelle avec la vie privée (et familiale en particulier) dans le développement de la carrière scientifique

Centre of research: CIRFASE (one senior male researcher, one junior female postdoc)

Funding: FNRS

Length: 01/2012 - 12/2014

9) Title: GGPS: Generation and Gender Panel Survey in Belgium

Research centre: DEMO (one senior femaleresearcher, one senior male researcher, two male junior postdocs and one female postdoc)

**Funding: UNECE** 

Length: 12/2005 - 12/2013

10) Title: Migration and paternity: evolution of family models in descendents of magreb immigrants in immigration spaces. The case of young Belgian fathers with immigrant Marrocan roots - Migration et paternité: évolution des modèles familiaux chez les descendants des immigrés magrébins dans l'espace de l'immigration. le cas des jeunes pères belges issus de l'immigration marocaine.

Direction de la recherche : CIRFASE (one male senior researcher, one male junior postdoc)

Length: 01/2005 - 01/2012

11) Title: The new contours of international Bolivian migration. Feminisation of migration, new family configurations and maternity at a distance. - Les nouveaux contours de la migration internationale bolivienne. Féminisation des migrations , nouvelles configuirations familiales et maternité à distance.

Research centre: GRIAL (one senior female researcher, one junior female postdoc)

Length: 03/2008 - 03/2012

12) Title: Gender and articulation of work/family: towards a new model Research centre: CIRFASE (one senior male researcher, one female researcher

Length: 01/2011 - 12/2012

13) Title: The rapports of men/women in the context of precariousness. Field enquiry in two Bruxelles districts - *Le rapport hommes/femmes dans des contextes de précarité.* Enquête de terrain dans deux quartiers bruxellois.

Centre of research: LAAP (one female researcher)

Length: 10/2005 - 12/2012

14) Title: Romantic relations in adolesents: between violence, défiance and heart ache - Relations amoureuses des adolescents: entre violences, défiances et mal d'amour

Centre of research: CIRFASE (one female senior researcher)

Length: 06/2011 - 06.2012

15) Titre: Gender differences in Professional paths of post-docs in Italy and Belgium. Flexible stories between the scientific and personal life - *Différences de genre dans les parcours professionnels après-doctorat en Italie et en Belgique. Histoires flexibles entre la vie scientifique et personnelle* 

Centre of research: CIRFASE (one male senior researcher, two female postdoc researchers)

Length: 05/2012 – 04/2013

16) Title: Pathways of Islamic feminsts in Belgium - *Parcours de féministes islamiques en Belgique* 

Centre of research: CISMOC (one female senior researcher, one female junior postdoc) Length: 09/2012 - 07/2013

17) Title: The Romanesque of women. Morals and fiction in the XVIII and XIX centuries.

- Le Romanesque des femmes. Morale et fiction aux XVIIIe et XIXe siècles

Direction de la recherche: LaHRIS (one senior male researcher)

Length: 12/2010 - 07/2013

18) Title: The construction of gender relations, membership and transnational ties of immigrant marrocan children between Marroco and Europe - *La contruction des relations de genre, l'appartenance et les liens transnationaux chez les enfants d'immigrés marocains entre le Maroc et l'Europe* 

Research centre: MIND (two senior female researchers, one junior female postdoc)

Length: 09/2008 – 10/2013

19) Title: Philosophy, Eros and feminitude with Michel Cazenave - *Philosophie, Eros et féminitude chez Michel Cazenave* 

Centre of research: LaHRIS (one male senior researcher, one male postdoc, one female postdoc)

Length: 09/2010 - 30/08/2014

20) Titre: The rapport to body in the relations of care - *Le rapport au corps dans la relation de soin* 

Direction de la recherche: CIRFASE (one male senior researcher, two female postdocs, two male postdocs)

Length: 10/2005 – 01/2015

21) Titre: Age, women and work: an évaluation - Age, femmes et emploi : une évaluation (WOLDEMP - BELSPO)

Direction de la recherche: CIRFASE (two senior male researchers, one senior female researcher, one male postdoc, one female postdoc)

Length: 02/2012 - 09/2015

22) Title: Status and représentation of the body in political economy of liberalism: intelligent practice, emotional work, gender erlations, métaphores of the body (political body, intermediary body etc.) - Statut et représentations du corps dans l'économie politique du libéralisme. Thèmes traités : intelligence pratique, travail émotionnel, rapports de genre, métaphores de la corporéité (« corps politique », « corps intermédiaire », etc.).

Centre of research: CRIDIS (one senior male researcher)

Length: 01/2013 - 12/2016

23) Titre: 2Gender (Generation and Gender ENergy DEprivation: Realities and Social policies.)

Centre of research: HELESI (one female senior researcher, two female postdocs (LAAP),

one male postdoc) Funding: BRAIN-Belspo Length: 2012 – 2017

24) Title: The non-economic explanations for the choice of fecundity in Europe - LES EXPLICATIONS NON-ÉCONOMIQUES DES CHOIX DE FÉCONDITE EN EUROPE

Centre of researc: DEMO (one female senior researcher, one female postdoc)

National and international collaboration: one female researcher (Universitá degli studi di Messina), one male researcher (Universitá degli studi di Messina), one male researcher (Brown University).

25) Title: Gender Equality and choice of fecundity in developed countries- GALITE DE GENRE ET CHOIX DE FÉCONDITÉ DANS LES PAYS DÉVELOPPÉS

Centre of research: DEMO (one female senior researcher)

National et international collaboration: one female researcher (Universitá degli studi di Messina), one male researcher (Universitá degli studi di Messina), one male researcher (INED).

## 2.2 MAPPING GENDER DIMENSION IN RESEARCH: SSH AND SOME INTERDISCIPLINARY RESEARCH

In this part we present the discursive analysis of projects in terms of gender related content, approach, objectives, methods, expected results and the team composition:

#### 2.2.1 Discursive analysis of project descriptions

1) Title: The participation of men in family work. Which consequences for their intention of fecundity?

This project is directly gender-related, in that male intentions of getting a child are examined according to his participation in family work. Participation levels, attitudes and intentions are studied in both quantitative and qualitative methods. There is a clear gender-related content, approach and objectives of the research, aimed at a better understanding of male intentions of having/getting children (fecundity). The project team consists of one female postdoctoral researcher and one female supervisor/project leader

2) Title: Life course events and well-being. The importance of family obligations and support

The project content and approach can be considered gender-related, but this is not specifically mentioned. Rather well-being consequences of life transitions due to support from family or other support is examined in the German context for individuals and differentiated by social contexts. Examining the effects or consequences of/for gender is not an explicit objective or approach, although this could be considered an interesting perspective for the question of the experience of well-being and support. This project consists of one female postdoctoral researcher and one female project leader/supervisor.

3) Title: Why are women more present in social enterprises? A comparative analysis of social enterprises impulsed by women, by men and mixed, in France

This project is directly and explicitly gender-related in that it examines the difference between the participation and level of involvement of women in social enterprises, and comparing that of situations of men and of mixed enterprises. Both the content as well as the approaches used for the study are gendered. The publications issued sofar from the project are aimed at sensitizing about women's situation in collective action in different parts of the world. There is also the side-issue or effect studied and written about about debt and women; real and imaginary debts. The project involves one female postdoctoral researcher and one female supervisor, with the participation in publication with another female researcher.

4) Title: Interference of private and Professional life in the access to an academic career. The case of scientists of FNRS

This project is directly and explicitly gender-related; the experience of work and parenthood is researched in the case of postdoctoral researchers in the Belgian context. The role of gender in these experiences, as well as the impact thereof are explicitly enlisted as content of the project. This project involves one postdoctoral male researcher and one male senior supervisor.

5) Title: Gendering the academy and reseach: combating career instability and asymmetries (GARCIA)

This project is directly and explicitly gender-related, in both content, approaches and methodology; studying academic and scientific careers from a gendered perspective, using the theories of gendered organizations. The project team involves in the UCL team a female postdoctoral researcher, a male senior supervisor, a female senior researcher. The collaborators in other countries include mainly female doctoral, postdoctoral and senior researchers, one male doctoral researcher, one male senior researcher, one male project evaluator, one male administrator.

6) Title: Birth: which arbitrage. Work/family, modes of taking care of children?

This project, by its title seems to be directly gender-related, however there are no project descriptions available. The project team consists of two senior male researchers and one female researcher

7) Title: How can social protection systems contribute to more sustainable working careers over the life course of men and women?

The project is directly gender-related, as it examines the role of social systems with regard to men and women's careers throughout lifecourse. There is clearly a gendered approach mentioned. The objective of the project is to improve work conditions through social protection systems for women and men throughout their lifecourse. This is a collaborative project lead by Dublin, whereby one female postdoctoral researcher is appointed for Belgium, UCL.

8) Title: Interference of Professional and private life (particularly family) in the development of the scientific career - L'interférence de la vie professionnelle avec la vie privée (et familiale en particulier) dans le développement de la carrière scientifique

This project is directly gender related both in content as well as approaches/methodology as it is dealing with work/life interference, in particular with respect to family life in the development of the scientific career. See project description with Pascal Barbier/Bernard Fusulier. The project involved one female postdoctoral researcher and one male senior supervisor.

9) Title: GGPS: Generation and Gender Panel Survey in Belgium

This project is directly gender-related in both content, approaches as well as objectives; mapping comparatively women and men's participation in daily chores, care and modes of life, and of intergenerational relations in terms of mutual support and care. There is an interuniversity field to be examined, of multiple Belgian research institutes and university research centres.

The project team for UCL consists of three postdoctoral researchers two male, and one female, as well as one female supervisor and one male supervisor.

10) Titre: Migration and paternity: evolution of family models in descendents of magreb immigrants in immigration spaces. The case of Young Belgian fathers of marrocan immigration descent. - Migration et paternité: évolution des modèles familiaux chez les descendants des immigrés magrébins dans l'espace de l'immigration. Le cas des jeunes pères belges issus de l'immigration marocaine.

The project is directly related to gender issues, regarding roles of fathers of second generation morrocans, and their incorporation of norms and values of surrounding society and society of origin, roles and values of parents and their own family dynamics and identity within the family. The gendered perspective is present in content and approach. The project team consists of one PhD male researcher and one male senior supervisor.

11) Title: The new contours of international Bolivian migration. Feminisation of migrations, new family configurations and maternity at a distance - Les nouveaux contours de la migration internationale bolivienne. Féminisation des migrations, nouvelles configuirations familiales et maternité à distance.

Clearly a gender-related project in its content and objectives: long-distance mothering by Bolivian migrants in Italy: An analysis on productive and reproductive roles, which clearly requires a gendered analysis. The project consits of one PhD female researcher and one female senior supervisor.

12) Titre: Gender and articulation of work/family: towards a new model - Genre et articulation travail/Famille: vers un nouveau modèle

A project on articulation of work/family and new models thereof: a gender-related project in both content, approaches and objectives. Consists of one female senior researcher and one male senior researcher.

13) Title: The rapport between men/women in the contexts of precariousness. Field equiry in two Bruxelles districts - Le rapport hommes/femmes dans des contextes de précarité. Enquête de terrain dans deux quartiers bruxellois.

The project clearly has a gender-related perspective in both content, approaches, methodology and literature issued from project. Examining with a gendered perspective the experience of women and men in preciousness, it broaches the following topics; life on the street, prostitution, poverty, violence, drug abuse, paperless, homeless, migrants: traces experiences and relations between men and women and their rapports to body, to the other sex and to loneliness. The project is conducted and written up by one female researcher.

14) Title: Romantic relations in adolescents: between violence, defiance and heartache - Relations amoureuses des adolescents: entre violences, défiances et mal d'amour

The project is directly gender-related, however the brief project description does not allow for a nuanced analysis of its content or approach.

15) Title: Gender differences in the postdoctoral parthways in Italy and Belgium - Différences de genre dans les parcours professionnels après-doctorat en Italie et en Belgique. Histoires flexibles entre la vie scientifique et personnelle

The research project is concerned with the vulnerability experienced by post-doctoral researchers who try to construct their professional career within the Italian and Belgian academies. The main objectives relate to the analysis of gender differences of post-doctoral researchers working with temporary contracts, as well as the strategies mobilized by actors to articulate the different realms of life. This project is directly gender-related in its content and approaches, looking at postdoctoral experience of researchers in two institutional/country contexts, focussing on gender differences in conditions and strategies of articulation of work/life. The project consists of one female postdoctoral researcher and one male senior supervisor.

16) Title: Pathways of Islamic feminists in Belgium - Parcours de féministes islamiques en Belgique

The project is directly gender-related, as it is examining Islamic feminist in Belgium and their identity construction, engagement in social movements and discourses, contributing directly or indirectly to religion. The content and approach of the project are both done with a gendered perspective, and examine a particular strand of conceptual and practical feminism. The project team consists of one postdoctoral female researcher and one female supervisor.

17) Title: The Romanesque of women. Morals and fiction of the 18<sup>th</sup> and 19<sup>th</sup> centuries - *Le Romanesque des femmes. Morale et fiction aux XVIIIe et XIXe siècles* 

The project is directly gender-related; however very short description does not allow for a nuanced analysis of its content or approach.

18) Title: The construction of gender relations, membership and transnational ties for immigrant marrocan children between Morroco and Europe - *La contruction des relations de genre, l'appartenance et les liens transnationaux chez les* enfants d'immigrés marocains entre le Maroc et l'Europe

Project description not available.

19) Title: Philosophy, Eros and Feminity accordign to Michel Cazenave - *Philosophie, Eros* et féminitude chez Michel Cazenave

Project description not available.

20) Title: The rapport to the body in the relations of care - *Le rapport au corps dans la relation de soin* 

The interdisciplinary project is indirectly, but explicitly gender-related, as investigating the rapport of the body in the relation of care between nurses/midwives and their patients. The role of gender in this relation and construction of inequalities are examined amongst other factors such as socialization of identity and professional practices. The research team consists of two female (senior and junior) researchers and two male (senior and junior) researchers.

21) Title: Age, women and work - Age, femmes et emploi : une évaluation (WOLDEMP - BELSPO)

The project is gender-related in its content, approaches, methods and objectives/predicted results, which is aimed at improving or prolonging work and work insertion for aged women in particular, in multiple sectors. The study is both macroeconmical, as well as examining work and age from a gendered perspective. The project is clearly Policy orientated, and has been funded with a Policy aim. The project team consists of two male senior researchers, one female senior researcher, one female doctoral/postdoctoral researcher, and one male postdoctoral researcher

22) Title: Status and representations of the body in political economy of liberalism (pratical intelligence, emotional work, gender rapports, metaphors of the body) - Statut et représentations du corps dans l'économie politique du libéralisme. Thèmes traités : intelligence pratique, travail émotionnel, rapports de genre, métaphores de la corporéité (« corps politique », « corps intermédiaire », etc.).

A project with a directly gender-related content and approach; examining the representation of body in political economy of liberalism: its aim is to sensitize and revoke fundamental impact of embodied condition on manual work, gender inequalities, practical construction or usage of norms. Using a variety of social and political contexts, the study engages in conceptual critque of liberalism using a gendered perspective amongst others for analysing the impact and construction of the body in discourse, politics, Policy, art and other areas of social life.

23) Title: 2Gender (Generation and Gender ENergy DEprivation: Realities and Social policies.)

This interdisciplinary project is directly and explicitly gender related, by examing the precariousness of access to energy in households from a gendered perspective; mapping the characteristics of the concerned population, in terms of vulnerability, social relations, mobility and health. The aspect of gender is particularly interrogated as well as generation. This project is funded and conducted with a Policy perspective. The project team consists of one female senior project leader, one male postdoctoral researcher, two female postdoctoral researchers, with international and ntaional collaboration with other Belgian universities and a British university.

24) Title: The non-economic explanations of choice of fecundity in Europe - LES EXPLICATIONS NON-ÉCONOMIQUES DES CHOIX DE FÉCONDITE EN EUROPE

This project would potentially have a gender-related content, or approach. The influence of religiousness on the fecundity of couples, and of the intermediary roles of families could definitely be analyzed using a gendered perspective, but this is not explicitly mentioned in the given project descriptions, which does not exclude the possibility of it having this in the actual project. There is a focus on examining different national contexts. This project involves one female doctoral/postdoctoral researcher, and one senior female UCL project supervisor. There are moreover international and National collaborations with other researchers in other universities (Italian, States): one senior female and two male senior researchers.

25) Title: Gender equality and choice of fecundity in developed countries - EGALITE DE GENRE ET CHOIX DE FÉCONDITÉ DANS LES PAYS DÉVELOPPÉS

This project is directly and explicitly gender-related in its content and approach. The work/family balance is examined for women in contemporary societies and work configurations. The hypothesis and expected results are gendered in the sense of predicting a predominance still of female care and domestic tasks in the domestic sphere. The effects and consequences furthermore are viewed from a gendered perspective, in that fecundity is seen to having been modified and delayed due to these persisting chores, alongside an increase in work force participation. The project team consists of a female senior researcher at UCL, and three collaborators from Italian universities, of which one is female and two are male.

#### 2.2.2 Researchers

In UCL, more than 100 researchers are working on gender related questions. The count here is established by a list of researchers made by our gender appointee (Edithe Antoine) collected in the annual report of UCL. However, this is not an exhaustive number, more a general idea.

Women academics working on gender related research	45
Men academics working on gender related research	28
Women researchers working on gender related research	31
Men researchers working on gender related research	4

### 2.3 GENDER IN TEACHING AND CURRICULA: LIST AND ANALYSIS OF SSH AND INTERDISCIPLINARY COURSES WITH STEM AND SSS

In UCL, there is a considerable offer of gender related courses in different faculties and schools. The identification of this offer is not easy however, as in although in certain cases, the courses are clearly structured or entitled related to gender (for example « gender and development »), which are easily identifiable. But, in other cases, the course title does not refer directly to gender related topics, but is in its content and approaches taught may well be so. At this stage it is technically impossible to have a systematic quest via key words for the entire body of courses throughout UCL. The following informations and courses have been traced through the programme of courses with specific masters or bachelors programmes pertaining expicitly and thematically to gender, which are attributed to persons employed in UCL, who have an expertise in these topics. However, this may not include all courses in all departments related perhaps indirectly to gender.

#### 2.3.1 Teaching programs at MA level

In UCL, the Bachelors [180] is composed of a major of 150 credits and an option of 30 credits. This option allows for the students to discover parallelly to their own discipline an other discipline. This option is referred to as "minor" or "in depth". For the Masters program [120], there is a common part (75), a specialiation of 30 credits and options. It is within these structures that teaching on gender related courses is mainly and explicitly conducted.

#### 2.3.1.1 Gender-related teaching

Gender-related teaching has been identified in six different faculties, which are in large part SSH, with some exceptions in SSS and STEM for interdisciplinary courses. No gender-related teaching could be identified in the eight other faculties or schools at UCL.

# 2.3.1.1.1 Faculty of economic, social, political and communication sciences (Faculté des sciences économiques, sociales, politiques et de communication) – ESPO

POLS1232 BAC	<ul> <li>Introduction interdisciplinaire aux études de genre – Interdisciplinary introduction to gender studies</li> </ul>	15 h	3 ECTS	Florence Degavre (ESPO) Pascale Jamoulle (ESPO)
POLS1233 BAC	- Séminaire interdisciplinaire en études de genre	15 h	3 ECTS	Catherine Gourbin Pascale Jamoulle (ESPO)
LPOLS1314 BAC	- <i>Droit social</i> – Social law	30 h	4 ECTS	Bernard Nyssen (ESPO)

LPOLS1121 MA	<ul> <li>Sociologie politique – Political sociology:</li> <li>&gt; Première année de master [120] en sciences et gestion de l'environnement, à finalité spécialisée</li> <li>&gt; Deuxième année de master [120] en sciences et gestion de l'environnement, à finalité spécialisée</li> <li>- Preparatory year for Master in Political Sciences (all orientations) and for Master in Public Administration</li> </ul>	30 h	4 ECTS	Benoît Rihoux (ESPO)
	The course content relates indirectly to gender studies through the study of social movements. Feminist movements are not explicitly mentionted, but could possibly be part of the curriculum or Reading list of the course which is not accessible. There is an omission of any specific mention of gender related content or issues, whereas other racial or mintority movements are explicitly mentioned.			
LSOC2030 MA	<ul> <li>Socio-anthropologie de la précarité – Socio- anthropology of precariousness:</li> <li>Master in Anthropology</li> </ul>	30 h	5 ECTS	Pascale Jamoulle (ESPO)
	This course directly relates to gender contents and approaches: the lecturer proposes content that looks explicitly at feminin and masculin experiences of precariousness, their relations, family structures, maternal and paternal figures. The course aims no not explicitly mention getting to know gender relations or experence in precariousness, however the détails of case studies to be studied in the course includes very explicit material, collected and conducted by the lecturer herself on féminin and masculin situations and perspectives, which would enhance a gendered approach to looking at precariousness in terms of poverty, work, life on the street, relations, dynamics, violence etc.			
LSOC2005 MA	- Sociologie du genre et de la sexualité — Sociology of gender and of sexuality Master in Anthropology Master in Sociology and Anthropology This course is explicity related and dedicated to the field of gender studies and gendered approach to studying sexuality; its contents, aims and	30 h	4 ECTS	Jacques Marquet (ESPO)

	approaches are intimately linked and apply gender studies.			
LTRAV2200 MA	- Sociologie du travail – Sociology of work Master in Labour Sciences (different options, 2 years o 1 year) Master in Sociology Master in Anthropology	30 h	5 ECTS	Matthieu de Nanteuil Isabelle Ferreras (ESPO)
	This course is indirectly related to gender related topic, as is addressing the sociology of work; although in the course content identities in the workplace are addressed, there is no explicit mention of gendered organizations or work, or any gender dimension in the contents or aims. A variety of methodological approaches to empirical research are mentioned, which could potentially but do not explicitly include gendered dimensions.			
MA	<ul> <li>Séminaire: économie du travail – Economy of work</li> <li>Master Labour Sciences</li> <li>This course is directly related to gender issues regarding structural unemployment, labour market policies and causes of wage inequalities. However, the course description does not explicitly mention gendered perspective, or any other perspective or actual aspect of these areas of labour economy. The aims are quite methodological and relate as much to the approach of students in processing, writing and presenting knowledge, as much as the actual contents.</li> </ul>	30 h + 10 h	5 ECTS	Muriel Dejemeppe (ESPO)
LECGE1317 MA	- Théorie des organisations – Theory of organizations  Master in HRM  Master in Mangement  The course is indirectly linked to gender issues through management science, sociology of work and organizations; however the course description is held very general, mentions however a cultural paradigm, which could include gender perspectives. There is no explicit mention, which however does not neccessarily mean that no mention in the actual course is not given.	30 h	4 ECTS	Matthieu de Nanteuil (ESPO)
LANTR2060	- Anthropologie des migrations – Anthropology of migrations	30 h	5 ECTS	Jacinthe

MA	Master in Anthropology			Mazzocchetti
	Master in Sociology  The course is directly linked to gender related issues, as is about anthropology of migration, and mentions explicitly the study of gender relations and of parentality, and restructuring of gender reltaions and parentality in the cases of migration. There is also a mention of inequalities, discrimination, violence etc., but without explicit mention of a gendered perspective when broaching these topics, which however could merely be an ommission in the course description and not in the actual course.			(ESPO)
LSPED1215 MA	- Genre et sociétés – Gender and societies Master in Famlily and Sexuality Studies Master in Population and Development Studies	30 h	5 ECTS	Laura Merla (ESPO, CIRFASE), Ester Lucia Rizzi (ESPO, DEMO)
	This course is directly and explicitly related in content, approaches and aims to gender issues, and builds on creating an understanding in students on the construction of gender in socieities, with a comparative and historical perspective.			(23. 3, 523)
LSPRI2250 MA	<ul> <li>Advanced comparative politics (II): political parties, interest groups, social movements and protest politics:</li> <li>Master in Political Sciences</li> </ul>	15 h	5 ECTS	Benoît Rihoux (ESPO)
	This course relates indirectly to gendered social movements that could be part of the content or approach of new social movements and established social movements. However, the course description is held very broadly, and does not offer a detailed description of what kind of social movements might be studied. It is very possible that the course syllabus or readings might include such reference, which is however not accessible.			
MA	<ul> <li>Genre et développement – Gender and development</li> <li>Master in Population and Development Sciences,</li> </ul>	30 h	5 ECTS	Sophie Charlier (ESPO) Isabel Yépez Del
	Master In Environmental Sciences  This course is directly and explicitly related			Castillo (ESPO)
	to gender issues in its content and approaches, as well as aims/objectives; the			

	students are seen to be familiarized with gender systems in different organizational and global contexts. There is a nuanced approach by introducing studies and discussing results of these studies on diverse topics relating to gender systems. Moroever, the students are supposed to learn the capacity to critique feminine and masculine stereotypes in development Policy and different hierarchical levels of social discourses.			
LDEMO2613 MA	- Ménages et familles — Compositions and families Master in Démography	30 h	5 ECTS	Thomas Baudin (ESPO, DEMO)
	This course is indirectly related to gender perspective by its content and approaches in family demography. The description is very broad and general and does not elicit much information about the kind of precise contents or approaches that will be used. It is an interdisciplinary approach, which will study through anthropology, sociology, demography and economy different concepts on family compositions and unions, types of measures and indicators, the history of family models in history and théories of family formation and dissolution. It is probable that gender would be an underlying perspective.			
LDVLP2201	- Formation au travail de terrain – formation in field work  Master in development, environment and societies  This course mentions explicitly content related to gender issues, by including inequalities betweeen women/men in the north-south heminspheric relationships in development studies. Based on an interdependence perspective between north-south, représentations, paradims and policies are analysed and analytical frameworks presented. The students are moreover required to conduct their onw research with a specific problematic and to create a pedagogical tool for educational communication in the university sphere destined to students and researchers/adminsitration alike). An implémentation oriented course with	30 h	5 ECTS	An Ansoms (ESPO)

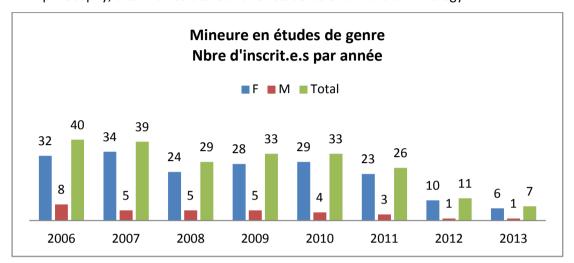
	gender content addressed to university sphere.			
LECON2342	- Théorie du développement — Theory of development Master in Anthropology Master in Political sciences Master in Economics Master in Development, environment and societies	30 h	5 ECTS	Marthe Nyssen (ESPO) Andreia Lemaître (ESPO)
	This course relates directly but not explicitly to gender studies, as it deals with different théories and approaches of development studies and north-south economic relations and constellations. It is a critique based course that intends to expose students to a variety of different view points on this topic, and broaches théories of modernisation, neo-modernisation, neo-structuralism, interdependence and market economy and state; students are required to engage in a critical and historical reflection about développement theories and politics. This could contain gender perspectives, but perhaps in a broader way, of which we have no information.			
LDEMO2611 MA	<ul> <li>Vieillissement et relations intergénérationnelles – Aging and intergenerational relations Master in demography</li> </ul>	30 h	5 ECTS	Catherine Gourbin (ESPO) Ester Rizzi (ESPO, DEMO)
	This course relates indirectly and explicitly to gender issues, as addresses aging, and studying historically and demographically this phenomenon. Feminisation and aging, as well as gender relations in aging processes are explictly mentioned as content. In the approaches however, a gendered perspective is not mentioned, although welfare state, health, intergenerational perspective and IT are mentioned.			BLIVIO

#### Specific programs:

#### The Minor in Gender Studies

In 2005, UCL created a "minor in Gender studies". This permits all students to « enlarge their knowledge and critical reflection about the places of men and women in society ». This initiative is a pioneer in french-speaking Belgium. Although most of the minor courses are addressed to Bachelors, some are also accessible to certain Masters

students. The students opting for this minor are majorly from faculties of econmic, social, political and communication sciences (ESPO). Here is a table showing the number of students enrolled for this minor course throughout the years since 2006 to 2013. The decreasing numbers in recent years is explained by our Gender appointee UCL (Edithe Antoine), as being largely due to the fact that the program was closed off for students of philosophy, arts and literature and for students of law and criminology.



Option of Masters in Anthropology "Parenting, family and gender" [120]

The Masters program in anthropology consists of a a common part (75 ECTS) and a specialisation (30 ECTS). This spécialisation can be chosn amongst an in depth spécialisation, two different specialistions or a didactic specialisation. The student then completes his/her program with an option (15 ECTS) which he/she can choose amongst 7 different options, one of which is entitled "Parenting, family and gender". This option proposes 8 courses, of which 6 integrate entirely or partially gender related themes.

Option "Parenting, family and gender" - 15 ECTS

LSC2004 STEM	- Evolution et hominisation — Evolution and humanisation	15 h	3 ECTS	Caroline Nieberding
MA	This course relates indirectly, not explicitly to a gendered perspective, perhaps more in its approach rather than content: huminisation and evolution theories and their development and use in different branches of sciences and epistemological thought in different historical and cultural contexts. This could definitely have a gendered perspective, which is however not explicitly mentioned.			Claire Van Dyck
LSEXM2274 MA	<ul> <li>Politiques familiales et sociales : approches sociologique et juridique – Family and social politics: sociological and juridic approaches</li> <li>This course explictly and directly is related to gender issues, and mentions the study, amongst other contemporary issues related to politics of the family, of the role of women in society; work/family balance; empoverished families; minority families;</li> </ul>	22.5 h	4 ECTS	Jacques Marqu et (CIRFASE) Thierry Moreau (DRT)

	changes in family dynamics.			
LSEXM2165	- Approches philosophique et éthique du couple, de la	60 h	8 ECTS	Nathalie
	famille et de la sexualité – Philosophical and ethical			Frogneux
MA	approaches of the couple, the family and sexuality			
	Master in Philosophy			
	Master in Family and Sexuality Studies			
	This course relates directly but not explictly to			
	gender perspective; although the angle of family			
	and sexual moral standards and ethical attitudes and			
	behavior in family, the couple and sexuality are			
	broached, implying the perspective and différences			
	between men and women and their dynamics, a			
	gender perspective is not explicitly mentioned.			
LSEXM2125	- Histoire de la famille et de la sexualité – History of	30 h	4 ECTS	Paul Servais
	the family and of sexuality	3011	4 LC13	raul Sel vais
MA	Master in Family and Sexuality Studies			
	This course relates directly, but not explicitly to a			
	gendered perspective; although different family			
	roles,, functions, modalities and the evolution of			
	these throughout history, as well as the			
	development of sexuality are described in great			
	detail, a particular gendered perspective are not			
1057843405	mentioned, but could be implied.	20 h	4 FCTC	1
LSEXM2105	- Sociologie de la famille et du couple – Sociology of	30 h	4 ECTS	Jacques
MA	the family and of the couple			Marquet
	The course directly relates to gender issues, and enlists different themes. The idea of the course is to			
	familize students with a variety of sociological			
	theories on family and sexuality, and to study			
	contemporary theories related to these topics.			
	However, a specific mention of gender is not given,			
LDV/LD2240	but possibly implied.	20 h	F FCTC	Cambia Charlian
LDVLP2310	- Genre et développement – Gender and	30 h	5 ECTS	Sophie Charlier
MA	development			
	This course is directly and explicitly related to			
	gender issues in its content and approaches, as well			
	as aims/objectives; the students are seen to be			
	familiarized with gender systems in different			
	organizational and global contexts. There is a			
	nuanced approach by introducing studies and			
	discussing results of these studies on diverse topics			
	relating to gender systems. Moroever, the students			
	are supposed to learn the capacity to critique			
	féminine and masculine stereotypes in development			
	Policy and different hierarchical levels of social			
	discourses.			

#### Specialisation of Masters [120] in "population and development studies"

The Masters program in population and development studies is composed of a common part (60 ECTS) and one specialisation (30 ECTS). The specialisation can be chosen amongst two options: in demography or in development. The student then completes his/her program with an option of mininum 30 credits. Amongst the choice of courses for this option, 8 are entirely or significantly within gender related topics.

Choix de cou	Choix de cours pour les options des finalités spécialisées en démographie et développement						
LDVLP2310	- Genre et développement – Gender and development	30 h	5 ECTS	Sophie Charlier, Isabel Yépez Del Castillo			
LSPED1215	- Genre et sociétés – Gender and societies	30 h	5 ECTS	Laura Merla, Ester Rizzi			
LSOC2005	- Sociologie du genre et de la sexualité – Sociology of gender and of sexuality	30 h	4 ECTS	Jacques Marquet			
LECON2342	- Théorie du développement – Theory of development	30 h	5 ECTS	Marthe Nyssen, Andreia Lemaître			
LDEMO2611	<ul> <li>Vieillissement et relations intergénérationnelles – Aging and intergenerational relations</li> </ul>	30 h	5 ECTS	Catherine Gourbin, Ester Rizzi			
LANTR2060	- Anthropologie des migrations — Anthropology of migrations	30 h	5 ECTS	Jacinthe Mazzocchetti			
LDEMO2613	- Ménages et familles – Compositions and families	30 h	5 ECTS	Thomas Bauduin			
LSEXM2105	- Sociologie de la famille et du couple – Sociology of the family and of the couple	30 h	4 ECTS	Jacques Marquet			

#### 2.3.1.2 Potentially gender-related courses in other faculties

There are some potentially gender-related courses to be found in other faculties, in which we have not found any explicit gender dimension in the descriptions, with some exceptions where we include the discursive analysis.

## 2.3.1.2.1 Faculty of Philosophy, Arts and Letters (Faculté de philosophie, arts et lettres) – FIAL

LROM2725	- Literary History Seminar	15 h	5 ECTS	Damien Zanone,
				Agnès Guiderdoni
LHIST2381C	- Governance and Societies (modern times)	22.5 h	3 ECTS	Silvia Mostaccio,
				Aude Musin
LHIST2552C	- In depth question of cultural and religious		5 ECTS	Silvia Mostaccio
	history II			
LFILO1130	- Elements of the analysis of language	30 h	3 ECTS	Salima Djerrah
LFILO1170	- Philosophical Anthropology	45 h	5 ECTS	Michel Dupuis,
				Nathalie Frogneux
LFILO1140	- Moral Philosophy	45 h	5 ECTS	Olivier Depré
LROM1321	- Analysis and practice of written argumentation	15 h +	5 ECTS	Caroline Scheepers
		15 h		

LROM2720	- Questions of literary history	22.5 h	5 FCTS	Damien Zanone
LROM2725	- Séminaire: Histoire littéraire (Bisannuel)	15 h	5 ECTS	Damien Zanone,
21101112723	germaner rustone neterane (assamaer)	13	3 20.3	Agnès Guiderdoni
LROM1544	- Civiltà dell'Italia dell'età aurea: dal Medioevo al	15 h	2 ECTS	Mattia Cavagna
	Barocco			
LROM1545	- Storia delle idee, della cultura e della letteratura	15 h	2 ECTS	Erica Durante
	italiana: dal XIX secolo a oggi			

## 2.3.1.2.2. Faculty of psychology and educational sciences (Faculté de psychologie et des sciences de l'éducation) – PSP

LPSYM2331 MA	<ul> <li>Psychologie des relations intergroupes: stéréotypes, préjugés et discrimination – Psychology of intergroup relations: stereotypes, prejudices, discrimination Master in Psychology</li> </ul>	60 h	6 ECTS	Stéphanie Demoulin, Vincent Yzerbyt
	The course is directly related to gender issues, as deals with intergroupes relationships, stereotypes and discrimination. Gender is mentioned as one of the socio-cultural aspects to be studied in terms of these topics, however there is no mention of a gendered approach in analyzing these different aspects. The course descritpion however implies a deconstruction of stereotypes and cognitives and social constellations that favor these; which could imply a gendered perspective as well.			
LPSP1322	- Stereotypes, prejudices, discriminations	30 h	4 ECTS	Stéphanie
BAC	Course relates indirectly to gender, and mentions explictly.			Demoulin,
	explicitly.			Vincent Yzerbyt,
				Jonathan Dedonder
LPSYM2432	- Psychologie de la parentalité – Psychology of	60 h	6 ECTS	Isabelle Roskam
MA	parenthood Master in Pscyhology Master in Family and Sexuality Studies			
	This course is directly but not explicitly linked to gender issues, and involves a study of parenting, with different set of characteristics proposed, amongst which gender does not feature. Although the roles and models of father and mother and child are broached, there is no mention of a gendered approach to analyzing parenting and children.			
LSEXM2812	<ul> <li>Approache de genre sur le couple et la famille – Gendered approaches in couple and family</li> <li>Master in Family and Sexuality Studies</li> </ul>	22.5 h	3 ECTS	Nathalie Frogneux
	This course is directly and explicitly linked to gender			

	issues and a gendered approach in terms of examining gender as a both a category of difference in couples and families, as well as in analysing inequalities.			
LSEXM2813	- Philosophy of the family and of the couple de la famille et du couple	22.5 h	3 ECTS	Nathalie Frogneux
LSEXM2814	- Politics of the family	22.5 h	3 ECTS	Jacques Marquet, Pierre Reman, Laura Merla
LSEXM2165	- Philosophical and ethical approaches of the couple, the family and of sexuality	60 h	8 ECTS	Nathalie Frogneux, Gaëlle Jeanmart
LSEXM2105	- Sociology of the family and of the couple	30 h	4 ECTS	Jacques Marquet
LSEXM2115	- Cultural anthropology of the family and of sexuality Master in Anthropology Master in Family and Sexuality Studies	30 h	4 ECTS	Robert Deliège
	This course deals directly and explcitly with gender issues, when broaching kinship. Both in content as well as approach, there is a specific mention of a gendered perspective.			
LSEXM2125	- History of the family and of sexuality	30 h	4 ECTS	Paul Servais
LSEXM2720	- Special questions of ethics in the areas of family, couple and sexuality	30 h	5 ECTS	
LSEXM2274	- Family and social politics : sociological and juridicial approaches	22.5h	4 ECTS	Jacques Marquet, Thierry Moreau (DRT)
LSEXM2155	- Biomedical aspects of sexuality and reproduction  Master in Family and Sexuality Studies	60 h	7 ECTS	Armand Lequeux Michel Hermans
SSS/SSH	This course contains a reference directly but not explicitly to gender issues, as is about reproduction and fertility/infertility. The course describes using both biological as well as psycho-physiological approaches in examing these phenomena, and makes a specific mention of the cultural nature of sexuality. Although there is no explicit mention of gendered perspective, there is a reference to something approaching this.			(MEDE) Reinier-Jacques Opsomer (MEDE) Xavier De Muylder
LPSY1313	<ul> <li>Psychologie de la cognition sociale et des relations intergroupes</li> <li>Prep Master Social Psychology</li> <li>This course is related indirectly to gender issues as is</li> </ul>	30 h	3 ECTS	Jonathan Dedonder Vincent Yzerbyt
	engaged with intergroup relationships dynamics;			

although personality, stereotypes and discrimination		
theories are examined, there is no specific mention of a		
gendered content or approach.		

# 2.3.1.2.3 Faculty of Sciences (Faculté des sciences) – SC

LBIO1182	- Interdisciplinary seminar in biological anthropology This course is indirectly and explicitly related to gender issues, as deals with biomedical anthopology. The course description itself does not explicitly mention a gendered perspective, but in the list of themes for the final written work proposed and proposed littérature there is an explicit mention of gender related topics with respect to biomedicine, the brain, biases in medical knowledge, matriarchal and patriarchal values in medicine etc. In fact, in the littérature list, there is a definite emphasis on a gendered perspective in both content and approach.	30 h	3 ECTS	Bernard Feltz, René Rezsohazy
LSC2004	- Evolution et hominisation – Evolution and humanisation	15 h	3 ECTS	Caroline Nieberding and Claire Van Dyck (coord.)

# 2.3.1.2.4 Faculty of theology (Faculté de théologie) – TECO

LTHEO2430	- Religions et genre – Relgion and Gender Master in Religious Studies Master in Theology	30 h	3 ECTS	Walter Lesch
	This course is directly and explictly related to gender issues and relgion. It mentions explictly a study in what gender means from sociological, anthropoligical and socio-ethical and religious points of view. It moreover studies religions from a gendered perspective. It broaches contemporary controversal questions dealing with women and men represented, addressed in religions, both in structures as well as discourses.			

# 2.3.1.2.5 Faculty of law and criminology (Faculté de droit et de criminologie) – DRT

LDROI1525	- Droit et genre – Law and Gender	30 h	3 ECTS	Pascale
	This course mentions and addresses directly and explictly			Vielle
	gender with respect to juridical content and reasoning.			(DRT)
	Students are required to study both the implications of a			(5111)
	gendered perpective on law and reasoning, as well as familize			
	themselves with concepts such as gendermainstreaming and			
	Gender law. In the course aims and objectives, students are			
	both required to acquire the knowledge, but also a reasoning			
	ability in terms of gendered perspective, and an transversal			
	approach to law and values and underlying normaltive			
	juridical productions.			

# 2.3.1.2.6 Faculty of Public Health (Faculté de santé publique) – FSP

WESP2228	- Socio-Anthropology of health and of medicin	20 h	5 ECTS	Vincent Lorent,
				Olivier Schmitz
WESP2108	- Bioethics	30 h	4 ECTS	Mylene Botbol,
				Luc Roegiers,
				Jean-Philippe Cobbaut
WMED2260	- Health and development	30 h	3 ECTS	Jean Macq,
				Debarati Guha

# 2.3.1.3 Science, technology and engineering sciences (STEM) and Health Sciences (SSS)

No courses that were specifically gender-related were identified for STEM or SSS sectors. Only some specific lecturers (see below) are identifiable who are teaching some interdisciplinary courses available in SSH departments, or SSS departments.

# 2.3.2 The complementary Masters in "Gender, institutions and society" of ULBU, Burundi

Although it is not a course given at UCL, it is interesting to signal that in 2009, UCL has contributed in a significant manner to the launch of an initiative in french-speaking Africa: the creation of a complementary masters program "Gender, institutions and society" at the University of Enlightment of Bujumbura (ULBU) in Burundi. Three professors of UCL are continuing to teach within this masters programme.

# 2.3.3 The lecturers as per centres and affiliations

The lecturers who are specialised in gender related matter are essentially attached to the faculties of econmics, social, political and communication sciences (ESPO), the faculty of philosophy, arts and letters (FIAL) and the Faculty of psychology and of educational sciences (PSP). There are however, some researchers from STEM or SSS faculties that give interdisciplinary courses.

# 2.3.4 Doctoral formation level

There are no doctoral thematic schools in Federation Wallonie–Bruxelles region known of with respect to gender related research. However, the doctoral students have the possibility to attend certain gender orientated doctoral seminars, which are conducted by researchers working on these domains.

- "Gender, economy and development"; international study day and doctoral seminar – September 2011.
- "Gender and development" doctoral seminar, February 2014
- "Globalisation and new frontiers" doctoral seminar Séminaire doctoral de l'Ecole Doctorale Thématique en Sciences Sociales de la Communauté française – May 2014
- "The quality of the life of the capable subject: between well being and social choice", doctoral seminar, Helesi 2014

In 2010, the FSR-FNRS funding body recognized the contact group "Gender: theories of research strategies", which had the objective of "reflecting upon methods adopted in gender related or feminist research and of conducting an interdisciplinary critical debate upon the construction of knowledge and stratégies of research in the field". UCL is impicated in this group via two female researchers, Florence Degavre (President) and Anna Safuta (Co-secretary).

#### 2.3.5 Continued Formation level

There is a university certificate equivalent to 15 ECTS entitled "Mental health in social context: multiculturality and precariousness", which is given at ESPO, faculty of economic, social, political and communication sciences. Gender is cross-examined along with other diversity variables. It comprises some specific seminars and ateliers that treat mutiple topics, which are also gender-related.

# 2.4 CONCLUSIONS ON MAPPING GENDER DIMENSION IN RESEARCH AND CURRICULA

# 2.4.1 Gender dimension in research across SSH/STEM

# 2.4.1.1 Projects analysed

There are 25 projects that we have identified and analysed discursively as per the different criteria outlined for this task, and roughly we can distinguish roughly eight different types or groups of kinds of gender-related research, which are usually paired around one or several specific senior researchers in some of the centres outlined in 1.1, which in their centre aims also refer directly to gender as an objective in research:

- 1) Research projects about fecundity, fatherhood, family chores and differences in experience of fecundity/parenthood in women and men, but more projects about the intention of fecundity and fatherhood in men, often in migrant contexts, in different European developed country contexts. There is however, one project about motherhood in migrant situations in Latin Amercia.
- 2) Research projects about work/family articulation or balance, and social protection systems in work with a gendered perspective; research about different professional groups, especially scientific work, and conceptual projects about work/life societal models in Euroepan developed countries. There are several comparative studies between European countries.
- 3) Research projects about precariousness (poverty, homelessness, street life, prostitution, violence...), energy deprivation and gendered experiences in the local Belgian context, and comparatively in Europe.
- 4) Research projects about health, care, aging, work and the body experience and relations in the local context, and also in representations of the body in political economy of liberalism, from a gendered perspective, or soley from point of feminity or feminine experience, some set in European or international comparative projects.
- 5) Social enterprise and the gendered experience/conditions in comparative study.
- 6) Adolescent gendered experience of amorous relations and aspirations.
- 7) Islamic feminist experiences and changes.
- 8) Romanesque of women in historical perspectives/ Eros and morals in literature

Generally speaking, the project themes described in 1) - 5) are tackled in an interdiscplinary approach, ranging from sociology, anthropology, demography and population studies, sexology, ethnology and have multiple levels of gendered dimensions: directly or explictly in content, but also in methods and approaches, and in expected results. Some projects, such as on precariousness and gendered experience, or on the romantic experience of adolescents and the historial/literary projects are carried out by individual senior researchers and have often resulted in published thematic books. There is a set of projects related to migration, family care, father- and motherhood experiences and intentions, or on work/family balance that are conducted as individual postdocs with the supervision of one senior researcher. These are pretty equally divided into female postdocs with female supervisors (on fecundity and family

care), and male postdocs with male supervisors (on fatherhood and migration experiences), and some female postdocs with male supervisors. The larger projects funded internationally or by Belspo, a state funding body, are comprised of several (two or three postdocs, more male than female) and several (two or three) supervisors, of which there is a slightly higher number of male senior supervisors. The gendered projects can be easily identified through around four to five female senior supervisors, who have a thematic approach to a number of ongoing research projects, with often one postdoc (often if not exclusively female) working on each. There is an equal number of identifiable senior male supervisors, around 4 or 5, who have a thematic approach to a number of their research projects, with one or two postdocs (equally female and male) working on each project.

The projects on health, care and the body have some interdisplinary involvement of senior and junior postdoctoral researchers from bioethics, or medicin, or socio-anthropology of health, care etc. There is one project on energy deprivation that also involves researchers from STEM, working collaboratively on sociology of energy, or management of ressoures and the state. Paired with the information on the list of interdisciplinary centres within IACCHOS, the projects we have identified are in par with the objectives outlined by these centres, and the researchers working on gender-related themes and approaches are quite easily identifiable.

# 2.4.1.2 Other gender-related projects and the gender dimension in STEM

However, this does not exclude the existance of other gender-related projects ongoing in SSH or STEM, which we have not been able to identify through our keyword or website search. However, during our enquiry, we realised that other than gender-familiar fields, such as SSH, or then interdisciplinary fields, such as bioethics, or socio-anthropology of health or management of societies, and energy, STEM fields rarely include gender in their research vocabulary, and even if gendered contents, approaches or results are highly probable to exist, they are not marked out by these perspectives.

Some interviews conducted for WP4 with newly permanent female researchers and female postdocs in STEM fields have elicited some interesting information as to their personal experiences with respect to STEM science fields and the gender dimension. Some female researchers felt that alongside their personal experience as a female researchers in a male dominated space, the way science was carried out, compared and valorised also had some strong gendered implications. For example, the following female biologist, who is now since five years a permanent academic at UCL, speaks about how certain scientific approaches can be gender biased, and restrict the development of research in its very essence. She was working on the reproductive behavior of a type of butterflies, whereby she reviews literature that largely records the male butterfly behavior as being descisive for the reproductory habits or frequencies. However, she realized while conducting her own experiments that the size of the female butterfly was much more larger than the male, and that the recipient or environment of the test or experiment mattered as to how free in space the female butterflies were in order to increase reproductive behavior. In fact, she determined that there was a bias in butterfly research in terms of the male butterfly predominance in determining reproductive behavior in most literature, written majorly by men researchers.

Another academic in STEM, in the bioengineering field, speaks about how ovarian cancer research can be highly gendered in its objectives, as for instance the measures for treating ovarian cancer in females are largely focussed around eradicating the cancer, with little focus or regard to the reproductory functions and implications for the women in question. She explains that this is a masculine model of treatment, as it deals with elimination of the illness or cancer, rather than a more holistic treatment, giving due regard to fertility and life quality of the persons with the cancer.

These examples show that there are clearly gender biases and gendered perspectives in science development, the way science is carried out, conducted and conceived, and that a more thorough research focussed on identifying these bias and scientific orientations needs to be undertaken on a larger scale, perhaps going beyond the mere project descriptions, which in the STEM case elicits little to no information about the potential gender dimension.

# 2.4.2 Gender dimension in Curricula across SSH/STEM/SSS

In teaching at UCL, in different faculties we have found gender-related courses that are sometimes explictly so, and sometimes have some implied gender references. However, the main faculties where Masters' courses are to be found are ESPO, Faculty for economics, social, political and communication sciences. There are mainly Bachelor courses for a Bachelor in gender studies, but with some access to Masters optional courses within Masters of Anthropology, Masters of Labour Studies, Masters of Human Ressource Management, Masters of Political Sciences, Masters in Sociology and Anthropology. Courses range from overtly gender studies related courses on "Gender and society", "Interdisciplinary Studies on Gender" or rather more implictly gender-related courses such as "Sociology of work", "Economy of work", "Political Sociology", "Theory of Organizations", "Socio-Anthropology of labour", "Theory of development", "Sociology of the family and of sexuality", "Social movements" etc.

There are two Masters options in Anthropology, "Parenting, family and gender", which includes a range of choices from courses in anthropology, sociology, sexology, philosphy, ethics, bio-anthropology. For example you can choose courses on "Anthropology of family, couple and sexuality", or "Philosophy and ethics of family, couple and sexuality". There is also a specifically STEM related course "Evolution and Humanisation", which is given by a STEM lecturer in Biology along with an anthropologist, which pertains to gendered perspectives in evolution theories and concepts. Most of these courses have a direct gender content or approach as part of their course program, which pertain to a gendered perspective upon family relations, couple relations and dynamics, parenting and parenthood, child rearing, relations to the body.

A further Masters option is in "development and population studies", which includes courses such as "Gender and development", "Aging and intergenerational relations", "Sociology of family, couple and sexuality", "Compositions and families", "Gender and socities" etc. These courses are also in part explicitly gender-related in content, approaches, and objectives. They comprise interdisciplinary courses on sociology, ethics, demography, population and development studies, whereby both theories, as well as

actual contemporary and historical scenarios are analysed with a gendered perspective amongst other variables.

There are furthermore quite a few courses in other faculties, such as "Philosophy, Arts and Letters", or "Law", "Sciences" and "Health Studies" that include some courses that are not explicitly or directly gender-related, but that pertain to theories, concepts and approaches that could potentially be gender-related or involving a gendered dimensions. However, in most cases we did not have sufficient information to analyse in the course descriptions, so they may well have a gender reference, which is not stated.

In total, there are a substantial number of courses that are directly gender-related, or include gender dimensions in their contents, approaches and course objectives. The lecturers moreoever, are both female and male in nearly equal measure. We did not have access to information about the number of students enrolled for each course, as in most cases these are optional credits that students are choosing from within their majors.

A large part of courses are theoretical and conceptual in sociology, anthropology, law, labour studies, focussing on acquiring knowledge about a wide range of theories and of developing a critical perspective upon these in terms of contemporary challenges, such as amongst others, a gendered perspective, or globalisation, liberalism, economy, development and representations (social, political and literary). There are some more case-study or context based courses such as the study of "precariousness" or "gender and development", which include specific examples that are to be studied, or previous research studies to be familiarized with. Some courses require a practical application by the students in an empirical or conceptual individual or group study.

# 2.4.3 Conclusive remarks

What appears with respect to a gender axis in research and in teaching at UCL, is that this does not amount to an institutional policy, as we are rather dealing with local initiatives and particular persons who are taking in charge gender related teaching or projects. The centre GREG for instance is a recent initiative, which had been called for by academics and researchers who, according to their own estimation, have a gendered analysis in research. However, this group of researchers do not have the ressources to have a full research program. Another example is the minor in gender. This minor (Bachelor) was carried by certain militant gender scientists and was constructed upon the basis of pre-existing courses, within which the gender dimension was strongly linked to the principle lecturer of the respective courses. However, this minor, although accepted by the institution, has not received any real ressources. The decrease in number of students can be interpreted not as a lack of interest on the part of the students, but as a lack of support of the program, its coordination and development. For example, certain principle lecturers having changed over time, whereby the "gender dimension" was no longer present in the lecture, and the students decided to leave or opt out of the minor, which from their point of view seemed non-coherent with what it proposed. There were some efforts to reinforce the coherence of the program. Another teaching program is currently under discussion; that of an inter-university master in gender studies. This depends strongly upon ministry support of higher education and university, as in a financial system with a closed envelop, the opening of a new master reduces globally the ressources of universities for other programs.

Having said this, currently an institutional work is under way to support individiual initiatives and to envisage a "gender policy". Whether the GARCIA project will be taken as an opportunity by the academic authorities remains to be seen, especially as there has been, since the kick-off of the project, a change in the rectoral team of UCL. The new councillor of gender, a permanent researcher of FNRS and academic, has to propose a project of policy in the matter. Once this policy will be publicized, we can perhaps add an annex to the present or other reports (WP4/WP5) to present the strategies that were retained as gender policy.

For the case of UCL, in several SSH faculties, and in the conception of research linked to teaching, there is a considerable number of teaching dedicated to gender and genderrelated issues and questions. As mentioned, projects are still rather tentative, and are clustered around certain key persons, carrying out gender related research as a principle part of their work. Beyond these clusters, there is some interdiscplinary involvement, also with some STEM and SSS staff members, which are however few in number. There is a strong focus on interdisciplinarity in both research as well as in teaching in terms of gender related subject matter and approaches to research. SSH in UCL has since 2009 undergone a structural change in the creation of multiple interdiscplinary centres, which now involve many members, who have a increased possibility of collaborating. This collaboration is still quite humble though, and mostly extends to European collaboration in comparative studies with specific thematic focus: work and gender; health and gender; enterprise and gender. The discursive analysis shows that these few projects have a high level of gender dimension according to different criteria, content, methods, approaches, expected results, target groups and also team composition. In terms of teaching, the discursive analysis of program descriptions vary from highly gender-related and explicit courses, to very broad theoretical or conceptual courses that may or may not have gendered references in their actual course content or literature used. The comparison between SSH and STEM is rather stark, in that SSH has a very elaborate gender-related research and teaching program, which tries to make some humble collaborative attempts with STEM staff in some select courses, mainly anthropology. STEM faculties however show slim to no courses that are offered with a gendered perspective. The interview examples however show that there is a great sensitivity experienced by researchers carrying out STEM fields' research in terms of themes, approaches, methods, environments, testing, collaboration etc, which have for them very strong gendered implications in terms of their own work and value of work, but also the way the science develops and takes shape and form. It would be a very valuable work to carry out a more in depth (perhaps doctoral) research on analysing the gender dimension in STEM research projects, by not only looking at project descriptions, which we found to be virtually non-existant or too brief to make any real sense of, but rather to conduct long-term action research with the STEM researchers in question, following up different stages of research, evaluating content, methods and results as they are reviewed, produced, discussed and disseminated, and to develop with the STEM researchers in question a more subtle and enhanced model of integrating a gender dimension, which is adapted to the specific research in question.

# 3 The NETHERLANDS

#### 3.1 INTRODUCTION

# 3.1.1 Participating departments in the Radboud University, the

#### **Netherlands**

The participating STEM institute at the Radboud University Nijmegen in the Netherlands is the Institute for Mathematics, Astrophysics and Particle Physics (IMAPP). The IMAPP is one of the six research institutes at the Science faculty, and is divided into four departments: Mathematics, Astrophysics, Theoretical High Energy Physics, and Experimental High Energy Physics. The Science faculty is one of the seven faculties of Radboud University.

The participating SSH institute is the Institute for Management Research (IMR). The IMR is the multidisciplinary research institute of the Nijmegen School of Management (NSM). The NSM is one of the seven faculties of Radboud University. The IMR conducts top-level research on the governance of complex societal systems. The IMR is divided into five sections: Business Administration, Economics and Business Economics, Political Science, Public Administration, and Geography, Planning and Environment. Each section is divided into different departments.

The Radboud University Nijmegen has a gender institute: The Institute for Gender Studies, founded in 1985. It is a lively interdisciplinary institute for teaching and research into women, sexuality and gender. With five professors, two associate professors, four university lecturers and seventeen PhD researchers, the Institute for Gender Studies is the largest institute in its field in the Netherlands. A number of researchers from the IMR are affiliated to the gender institute, but no researchers from the IMAPP.

# 3.1.2 Available data: Research projects

# 3.1.2.1 STEM

The information on research projects at the IMAPP was requested at the managing director of the institute. He received the data from the financial department. There were 36 externally funded projects over 200.000 Euros running in the time frame 1.1.2013 until 31.12.2013. We selected the 21 projects with the highest amount of money to analyse. The following information was available: name of the project, finances, duration, and the name of the project leader. No information was available on other team members, neither did we receive information on the type of contract of the project leader. We looked for the project descriptions online. This was a very time consuming task as not all projects were easily available. Only rarely information was

<sup>&</sup>lt;sup>1</sup> http://www.ru.nl/genderstudies/english/

provided on the methods and theories used in the projects, as well as the expected results. We analysed 21 project descriptions from the IMAPP (see Table 1).

Table 1: Research projects IMAPP

Nr	Project name	Funding	Starting	End date	Amount	Sex of
		body	date		of	project
		_			funding	manager
1	ERC -Lofar-Auger	European Commission	01-01-09	31-07-14	3.460.000	М
2	Spinozaprijs Falcke	NWO	01-01-12	31-12-16	2.500.000	M
3	Spinozaprijs Moerdijk	NWO	01-10-12	31-12-17	2.500.000	М
4	Subatomic Physics	NWO	01-12-10	31-03-16	800.000	М
5	VIDI White dwarfs twinkle like black holes	NWO	01-11-12	31-10-17	800.000	М
6	VIDI Noncommutative geometry	NWO	22-11-13	21-11-18	800.000	М
7	VIDI Haverkorn	NWO	01-04-11	31-12-16	794.440	F
8	Math. and comp. relevant dualities	NWO	01-09-09	01-02-14	410.848	F
9	Traces of representation	NWO	01-09-12	31-10-16	360.000	М
10	The logic of composite quantum systems	NWO	01-09-11	31-08-16	337.631	М
11	BlackGEM	NWO	01-05-13	31-12-15	302.000	М
12	FGQ Marie Curie	European Commission	01-03-13	31-08-16	274.504	М
13	NOVA support	NOVA	01-07-09	28-02-13	269.000	М
14	On the origin of time and scale	NWO	20-09-13	30-09-16	250.000	F
15	Spiral arms in accretion disk	NWO	01-09-13	30-09-17	249.115	М
16	Formation of multiple stellar populations	NWO	01-01-13	28-02-17	247.115	М
17	From a binary to a single star	NWO	15-09-11	30-09-14	232.000	М
18	The noncommutative geometry	NWO	01-06-10	31-08-14	213.513	М
19	Topos theory	NWO	15-06-09	30-06-13	212.655	М
20	Reality questions	NWO	01-09-10	31-08-14	210.013	М
21	Arithmetic and motivic aspects	NWO	01-09-13	31-08-17	208.115	М

Note: All these projects are externally funded

# 3.1.2.2 SSH

The information on externally funded research projects at the IMR was requested at the financial department of the institute. We selected only projects above 200.000 Euros, which were twenty projects in total. The financial department provided us with the following information of the research projects that were running in the time frame 1.1.2013 until 31.12.2013: name of the project, finances, duration, and the names of team members. Due to absences of staff in the financial department, it was difficult to get the requested data far in advance. No information was available on the type of contract of the project leaders and other team members. The sex of the members of the team was based on the information received from the financial department. We do not know about the accuracy of this data. We looked for the project descriptions online. Most of the project descriptions could be found on the website of the IMR. If available, we read the extensive project information on the project website. Only rarely information was provided on the methods and theories used in the projects, as well as the expected results. We analysed 20 project descriptions from the IMR (see Table 2).

Table 2: Research projects IMR

Nr	Project name	Funding	Starting	End	Financed	Financed	Total	Sex of	Men on	Women
		body*	date	date	extern	intern	amount	project	team**	on
							of	manager		team**
							funding			
1	Tools for		1-2-2012	30-6-	476.793	94.760	571.553	F	1	2
	Orchestrating Value			2015						
	Chains									
2	Breng		16-8-	16-8-	187.900	62.900	250.800	М	1	
	Kenniscentrum		2013	2017						
	2013									
3	Climate proof cities		1-1-2010	2-3-	217.043	57.510	274.553	M		
				2015						
4	Construction of a		1-1-2012	31-12-	326.546	86.938	413.484	M	1	
	Stakeholder			2015						
5	Innovation and		1-4-2013	31-3-	474.675	0	474.675	М	2	1
	Growth			2017						
6	STAR-FLOOD	EU	1-10-	1-4-	319.287	0	319.287	М	2	
			2012	2016						
7	STAGES	EU	1-1-2012	31-12-	314.572	279.763	594.335	F		2
				2015						
8	The Governance of		1-1-2010	28-1-	526.084	188.594	714.678	M		
	Adaptation			2015						
9	Help, a peak?!		1-11-	2-12-	187.439	94.547	281.986	М		
			2008	2014						
10	Keuzevrijheid		1-1-2012	16-7-	294.418	95.213	389.631	F	2	
	pensioenfondsen			2015						

11	EUBORDERSCAPES	EU	1-6-2012	1-6- 2016	459.362	0	459.362	М		
12	Cross-border shopping practices	NWO	1-11- 2010	30-9- 2015	225.000	57.172	282.172	M		
13	Verankeren van Duurzame Diversiteit	NWO	1-1-2012	31-12- 2015	250.000	82.560	332.560	F		
14	Food for thought	NWO	1-5-2011	1-12- 2015	206.706	75.695	282.401	М	1	
15	Future Value Chains	NWO	1-11- 2013	31-10- 2017	173.115	62.607	235.722	F		1
16	Gentrification 2.0	NWO	1-4-2013	31-8- 2016	249.959	101.704	351.663	М	1	
17	Grounding Land Governance	NWO	1-1-2011	31-12- 2015	195.706	76.534	272.240	F	1	
18	Public Negotiations	NWO	1-10- 2013	1-10- 2017	171.363	96.473	267.836	F	1	
19	Parkagent		1-12- 2010	31-3- 2015	287.000	30.755	317.755	М	1	
20	Systeemdynamica in de zorg		1-1-2009	1-11- 2015	198.962	96.365	295.327	М		

<sup>\*</sup> If the cell is empty, no information was available

#### 3.1.3 Available data: Curricula

The information on curricula was requested at the Education Offices of both the IMAPP and the IMR. They provided us with the names of the MSc courses of the 2013/2014 academic year, the number of ECTS, the names of the lecturers, the course descriptions, and the aim of the courses. It was quite easy to get this information. Only for the IMR we received information on the course bibliographies. However, in many cases, the syllabus stated that the course literature was "to be announced via Blackboard" (online Blackboard Learning System).

# 3.1.3.1 STEM

We analysed 26 course descriptions of the MSc courses in the academic year 2013/2014 that were offered by the IMAPP. As the IMAPP MSc programmes are two-year programmes, most courses are taught biannual. One course did not contain a course description and was therefore deleted from the analyses (see Table 3).

<sup>\*\*</sup> These exclude the project manager

**Table 3: Titles of MSc courses IMAPP** 

Nr	Title of course	ECTS	MSc
1	Computer algebra	6	MAT
2	Complexity Theory	6	MAT
3	Regression Analysis and non-parametric Statistics	6	MAT
4	Reële Functies	6	MAT
5	Forceren (Onafhankelijkheidsbewijzen in de verzamelingenleer)	4	MAT
6	Numerical Methods	3	P+A
7	Particle Physics Phenomenology	6	P+A
8	Theoretical Foundations of Elementary Particle Physics	9	P+A
9	Nuclear Physics	6	P+A
10	Professional Preparation	1	P+A
11	Cosmology	6	P+A
12	Telescope Observing	2	P+A
13	Quantum Field Theory	6	P+A
14	Monte Carlo Techniques	6	P+A
15	Introduction to String Theory	6	P+A
16	Data Analysis	3	P+A
17	CERN Summer Student Programme	9	P+A
18	Student Seminar Particle and Astrophysics	2	P+A
19	Introduction to C++	3	P+A
20	Astroparticle Physics	6	P+A
21	Introduction to Particle Physics Experiment Analysis	6	P+A
22	Cosmic Magnetism	6	P+A
23	Advanced Stellar and Binary evolution	6	P+A
24	Nikhef Topical Lectures	1	P+A
25	Lie Algebras in Particle Physics	3	P+A
26	Asteroseismology	6	P+A

Note: MAT = Mathematics, P+A = Physics and Astronomy

No information was available on the type of course elective/mandatory

# 3.1.3.2 SSH

We analysed 135 course descriptions of the MSc courses in the academic year 2013/2014 that were offered by the IMR. Master theses, master projects, and the course Preparing for master thesis were excluded from the course list. We reported on the remaining 99 courses (see Table 4).

Table 4: Titles of MSc courses IMR

Nr	Title of course	ECTS	Elective	Department	Sex of course coordinator	Gender in curriculum
1	A Critical Approach to Strategic HRM	6	NO	ВА	M	NO
2	Account Management	6	YES	BA	М	NO
3	Brand Management	6	NO	BA	F	NO
4	Buying Behaviour	6	NO	BA	F	NO
5	Competition and Co- operation	6	YES	ВА	М	NO
6	Computer Simulation Models and Organizational Decision Making	6	NO	BA	M	NO
7	Corporate Strategy	6	NO	BA	М	NO
8	Dynamics of Business Strategy	6	NO	ВА	М	NO
9	European Human Resource Management	6	YES	ВА	М	NO
10	Forms of Responsible Organizing	6	NO	ВА	F	YES
11	Gender and Diversity in Organizations	6	NO	ВА	F	YES
12	Group Model Building I	6	NO	BA	М	NO
13	Group Model Building II	6	NO	BA	M	YES
14	High Performance Work Systems	6	NO	ВА	М	YES
15	HRM Research and Methods	6	NO	BA	F	NO
16	Human Resource Management and the Flexible Workforce	6	NO	BA	F	YES
17	International Business	6	NO	BA	М	NO
18	International Human Resource Management	6	YES	ВА	М	NO
19	Intervention in Organizations	6	NO	BA		NO
20	Marketing Management	6	NO	BA	M	NO
21	Methodology in Marketing and Strategy Research	6	NO	BA	М	NO
22	Organization Design	6	NO	BA	М	NO
23	Organizational Change	6	NO	BA	F	YES
24	Organizational Research Methods	6	NO	ВА	F	NO
25	Organizations and Society	6	NO	ВА	М	NO
26	Product Management	6	NO	BA	М	NO
27	Research Methodology	6	NO	BA	M	NO

28	Social, Sustainable and Technological Innovation	6	YES	ВА	M	NO
29	Strategic Change	6	NO	BA	М	NO
30	Strategic Decision Making	6	NO	BA	М	NO
31	Strategic Scenarios and Business Models	6	NO	ВА	М	NO
32	Sustainability Project: Building the Green Economy Index	6	NO	ВА	М	NO
33	Global Marketing	6	YES	BA ECON	М	NO
34	Beleidsimplementatie & evaluatie	6	NO	PA	F	NO
35	Beleidsonderzoek & advies	6	NO	PA	F	NO
36	Besturen van veiligheid	6	NO	PA	М	NO
37	Bestuurlijke ethiek	6	NO	PA	М	NO
38	Bestuurskundige onderzoeksbenaderingen	6	NO	PA	М	NO
39	Comparative Public Administration	6	NO	PA	F	NO
40	Europeanization of Government and Policy	6	YES	PA	F	NO
41	Multi-Level Governance	6	YES	PA	М	NO
42	New Public Governance	6	NO	PA	М	NO
43	Organisatie & management	6	NO	PA	F	NO
44	Public Management, Risks and Accountability	6	YES	PA	М	NO
45	Research Traditions in Public Administration	6	NO	PA	М	YES
46	Vergelijkende bestuurskunde	6	NO	PA	М	NO
47	Excursion	6	NO	CICAM	М	NO
48	Accounting and Control	6	NO	ECON	М	NO
49	Accounting and Governance	6	NO	ECON	М	NO
50	Accounting Information Systems	6	NO	ECON	М	NO
51	Advanced Accounting, Governance and Control	12	NO	ECON	М	NO
52	Advanced Financial Economics	6	NO	ECON	М	NO
53	Cases in Corporate Finance	6	NO	ECON	М	NO
54	Culture and Economic Behaviour	6	NO	ECON	М	NO
55	Current Issues in Globalization	6	NO	ECON	М	YES
56	Financial Risk Management	6	NO	ECON	М	NO
57	International Financial	6	NO	ECON	М	NO

	Markets					
58	International Macroeconomics and Policy	6	NO	ECON	М	NO
59	International Trade and Policy	6	NO	ECON	М	NO
60	Methods of Empirical Analysis	6	NO	ECON	М	NO
61	Pluralisms in Economics	6	NO	ECON	F	NO
62	Changes in World Politics: The Rise of the BRIC Countries	6	NO	POL	М	YES
63	Duurzaamheidspolitiek: analyse en sturing	6	YES	ENVIR	М	NO
64	Methodologie voor MMW en Vomathe	6	NO	ENVIR	М	NO
65	MMW: Kernthema's / Social and Political Sciences of the Environment: Key Issues	6	YES	ENVIR	М	NO
66	Aspects of Local and Area Development: International Comparison	6	YES	PLAN	М	NO
67	Locatie- en gebiedsontwikkeling, proces en inhoud	6	YES	PLAN	М	NO
68	Marktordening en ruimtelijke ontwikkeling	6	NO	PLAN	М	NO
69	Urban Networks, Accessibility and Mobility	6	YES	PLAN	М	YES
70	Verdieping recht en instituties in de ruimtelijke planning	6	YES	PLAN	М	NO
71	Water Management and Spatial Planning	6	YES	PLAN	М	NO
72	Comparative Planning	6	YES	PLAN ENVIR	F	NO
73	European Spatial Planning and the EU Territorial Cooperation Agenda	6	YES	PLAN ENVIR	F	NO
74	International Environmental Politics (ESEP)	6	YES	PLAN ENVIR	М	NO
75	The EU and domestic Impact: Economy, Space and Environment	6	YES	PLAN ENVIR	М	NO
76	Institutional Perspectives on Societal Change and Spatial Dynamics	6	YES	PLAN ENVIR	М	NO
77	Advanced Research Methods	6	NO	POL	F	NO
78	Challenges to 21st Century Representative Democracy	6	YES	POL	F	NO

79	Contemporary Debates in Political Theory	6	YES	POL	M	YES
80	Cooperation and Conflict in the 21st Century	6	YES	POL	F	NO
81	Current Debates in International Relations Theory	6	YES	POL	M	NO
82	Global Political Economy	6	YES	POL	F	YES
83	Power and Persuasion in Politics	6	NO	POL	М	NO
84	Power in Political Theory	6	YES	POL	М	YES
85	Recognition, Redistribution and Citizenship	6	YES	POL	М	YES
86	Sociology, Philosophy and Ethics of Research	6	YES	POL	М	NO
87	The Politics of Reform	6	YES	POL	F	YES
88	Theoretical Approaches to Comparative Politics: Actors & Institutions	6	YES	POL	M	YES
89	City- and Region Marketing	6	NO	GEO	М	NO
90	Cross Border Governance	6	YES	GEO	M	NO
91	Economic Geographies: Foundations, Critiques and Alternatives	6	YES	GEO	M	NO
92	Economy, Space and Culture in Nijmegen	6	YES	GEO	М	NO
93	Geopolitics of Borders	6	YES	GEO	М	NO
94	Globalising Cities & Hinterlands	6	NO	GEO	М	YES
95	International Migration, Globalization & Development	6	YES	GEO	M	YES
96	Multiculturalism, Diversity and Space	6	YES	GEO	F	YES
97	Our Common Ground: Human Geographic Research Colloquium	6	YES	GEO	М	NO
98	Urban and Cultural Geography	6	YES	GEO	М	YES
99	Gender Theories and Equality Policies	6	YES	POL	F	YES

Note: BA = Business Administration, PA = Public Administration, CICAM = Centre for International Conflict - Analysis & Management, ECON = Economics, POL = Political Science, ENVIR = Environmental Sciences, PLAN = Planning, GEO = Human Geography

# 3.2 MAPPING A GENDER DIMENSION IN EXISTING RESEARCH AND CURRICULA – STEM department

# 3.2.1. Research projects

In the year 2013 there were 68 externally funded projects in the IMAPP. 36 of them had a funding amount over 200.000 Euros. Some of the projects were brought in by staff members who got a grant in their previous research institution. In a conversation with the managing director of IMAPP, it became clear that most of the projects that get funding around 200.000 Euros are requested with the aim to hire a PhD candidate for four years. Grants with a budget of around 300.000 Euros are generally used to hire a PhD candidate for four years and a postdoc for two years. Three of the project managers were women, 18 were men.

18 of the 21 projects we analysed were funded by the Netherlands Organisation for Scientific Research (NWO): 2 VENI, 3 VIDI, 7 Free Competition, 1 TOP grant, 2 Spinoza Prizes, and 3 others. Two IMAPP professors have received a Spinoza Prize in 2011 and 2012. The prize, which is worth €2.5 million, is the highest scientific award in the Netherlands. It's awarded to Dutch researchers who are at the very top of their scientific field, nationally and internationally.

VIDI is one of the three finance forms of the so called 'Vernieuwingsimpuls' of the Netherlands Organisation for Scientific Research (NWO). VIDIs are awarded to excellent researchers who, after having been promoted, have already conducted a few years of successful research. The scientists belong to the best ten to twenty percent in their field. With a VIDI they can do research for five years. The other two are VENIs (for newly promoted researchers) and VICI (for very experienced researchers). The goal of these grants is to stimulate innovation in scientific research. The grants have been set up in cooperation with the ministry of Education, Culture and Science (OC&W), the Royal Netherlands Academy of Arts and Sciences (KNAW) and the Dutch universities.

None of the projects have a gender or gender-related theme. The next section contains shortened descriptions of the research projects in the IMAPP.

#### ERC -Lofar-Auger

From Black Holes to Ultra-High Energy Cosmic Rays: Exploring the Extremes of the Universe with Low-Frequency Radio Interferometer. This study looks at the origin of high-energy cosmic particles, using telescopes such as LOFAR.

# Spinozaprijs Falcke (Spinoza prize)

As the Spinoza prize is awarded based on nominations by for example the university board, there is no project description written for this funding. Prof. Falcke received a Spinoza Prize for his research on black holes and cosmic particles.

# Spinozaprijs Moerdijk (Spinoza prize)

As the Spinoza prize is awarded based on nominations by for example the university board, there is no project description written for this funding. However, the research of Prof. Moerdijk contains the following: Topology studies spaces and describes their algebraic characteristics. In this way, geometric objects can be classified algebraically,

and from this algebraic classification it can be demonstrated that a space, with some mathematical pushing and pulling, can be deformed into another space with the same algebraic characteristics. Logic studies mathematical proofs and determines exactly how mathematical objects can be described, often with the aid of sets. In his research, Moerdijk combines topology with mathematical logic. In 'topological terms' you could say that he deforms logic with concepts and insights from topology.

#### Subatomic Physics

Subatomic physics or particle physics investigates the elementary constituents of matter and radiation. The particles that are studied are the building blocks of atoms, like electrons, protons and neutrons, the particles that makes up light - the photon - and several more exotic ones. These particle can be studied by colliding them at very high energies and detecting the particles produced in the interaction (accelerator based physics) or by observing particles produced by extremely energetic processes in the universe (astroparticle physics). This project tries to answer some of the big questions on the origin of our Universe: What is the origin of mass? Where has the anti-matter of our Universe gone? What is the nature of Dark Matter, that seems to be five times more abundant than ordinary matter?

# VIDI White dwarfs twinkle like black holes

At first sight, white dwarfs and black holes have little in common. But both attract matter and eject jets of gas into space. The researchers will study this similarity to understand the effect of relativity in this important astrophysical process.

# VIDI Noncommutative geometry and quantum lattice gauge fields

The project studies the construction of a continuum limit of a quantum lattice gauge theory, using techniques from noncommutative geometry. A key role will be played by lattice subdivisions, translated to the observable level through appropriate algebra maps and the development of a suitable renormalization scheme.

# VIDI Haverkorn (Title unknown)

This project will investigate the magnetic field of the Milky Way using the LOFAR telescope. Due to its low frequency range, LOFAR, the Low Frequency Array, is sensitive to low magnetic field strength far away from the Galactic disk, a regime that has hardly been probed before.

#### Mathematically and computationally relevant dualities

This project focuses on dualities which are "dually" relevant, both in mathematics and informatics.

Within mathematics, dualities underlie fundamental connections between algebra and geometry, and between logical syntax and semantics, e.g. in the various dualities extending Gelfand and Stone. Such dualities also appear in informatics where they relate (program) logics and computations. The aim of this project is to significantly advance interdisciplinary interaction between topological methods in algebra and coalgebraic methods in informatics by engaging two PhD students and two senior researchers in addressing cutting-edge problems pertinent to both disciplines, and to seek shared solutions and shared understanding.

Traces of representation No description available.

# The logic of composite quantum systems

Over the past decade, the possibility of quantum computers and the reality of quantum information theory have led to a remarkable cross-fertilization between computer science, mathematics, logic, and physics. This proposal lies in the interface of these fields, as reflected by a team of applicants consisting of a computer scientist, a mathematical physicist specializing in quantum theory, and a pure mathematician with a strong background in logic.

#### **BlackGEM**

The BlackGEM project is a wide-field telescope array dedicated to measure the optical emission from pairs of merging neutron stars and black holes. A few hours prior to the optical emission, these violent events should also emit copious amounts of gravitational radiation in the form of gravitational waves — ripples in the fabric of space-time itself.

#### FGQ Marie Curie

One of the projects that is conducted by the Marie Curie Fellow has the following content: We generalise Atiyah and Hirzebruch's vanishing theorem for actions by compact groups on compact Spin-manifolds to possibly non-compact groups acting properly and cocompactly on possibly non-compact Spin-manifolds. As corollaries, we obtain some vanishing results for an ^A-type genus.

# **NOVA** support

This research team studies the following research questions: At the end of its life, a massive star explodes and ejects its outer layers. The stellar core collapses to form a neutron star or a black hole. These are the densest objects that exist, and the ones with the strongest gravitational fields. What are the properties of matter at the extreme density in the interior of a neutron star? What are the observational signatures of black holes? Can we observationally verify the extraordinary predictions of General Relativity for the properties of curved space-time near these objects? How do particles and radiation behave near these compact objects? What happens when two compact objects orbiting each other eventually merge? Is this the origin of the most powerful explosions we know, the enigmatic gamma-ray bursts?

# On the origin of time and scale

This VENI grant project from the Dutch national science foundation (NWO) combines a novel approach to relativity called 'Shape Dynamics' (where scale is emergent) with an exciting conjecture called 'Holography' (where time is emergent) to make new predictions for the early Universe and to understand aspects of quantum gravity.

#### Spiral arms in accretion disk

Accretion disks are ubiquitous in the Universe, but their physics is still very poorly understood. In particular the angular momentum and matter transport through accretion disks, and the sudden viscosity changes associated with disk outbursts as seen in compact binaries, are not explained. The aim of this project is to understand the

importance of spiral arms to the physics of accretion disks and in particular the transport of angular momentum through the disk.

#### Formation of multiple stellar populations in star clusters

A 'self-enrichment' scenario has emerged in which gas that has been expelled by the slow winds of relatively short-lived stars accumulates in the deep gravitational potential well of the cluster. This gas has been processed by nuclear reactions in stellar interiors, and may cool sufficiently that a new generation of stars is formed in the core of the cluster. According to most models, the cluster dynamics subsequently results in the loss of the majority of first-generation stars, leaving a large proportion of second-generation stars in the currently observed cluster. We propose to examine this scenario by performing unprecedented self-consistent simulations of massive clusters, in which we model the gravitational stellar dynamics, the evolution of the stars and the hydrodynamics and radiative feedback of the ejected gas simultaneously. Our aim is to make major steps forward in understanding (1) under what circumstances sufficient amounts of processed gas can be retained in the cluster to form new stars, and (2) how the cluster dynamics affects the final proportion of first and second-generation stars.

#### From a binary to a single star

This is VENI grant project from the Dutch national science foundation (NWO). Sometimes a binary star merges into a single star. This star has unusual properties and can be the forerunner of a powerful explosion, for example a gamma flash or supernova. The researchers will develop a new method to investigate these stars.

# The Noncommutative Geometry of BRST-quantization

The classical gauge field theory underlying the Standard Model has already been reformulated in terms of noncommutative geometry by Connes and others. The current research project aims for a quantization of the theory, i.e. take into account the quantum effects necessary to describe elementary particles. As a first step towards a mathematical construction of the full (nonperturbative) theory, it attempts to formulate perturbative quantum gauge theories in noncommutative geometrical terms. A rigorous formulation of such a 'quantum noncommutative manifold' may well have implications for other fields in mathematics, as already has been witnessed by the successful applications of ideas from quantum field theory in differential and algebraic geometry.

#### Topos theory, noncommutative geometry, and quantum logic

Topos theory and noncommutative geometry are areas of modern mathematics that may both be seen as vast extensions of topology, each providing its own generalized notion of space. In topos theory one regards the so-called locales of lattice theory as spaces, whereas the C\*-algebras of functional analysis define spaces in the noncommutative sense. The aim of the project is to relate these different notions of space to each other and to quantum theory.

# Reality Questions for some Period Mappings

The past decade there has been a good deal of progress in the construction of period mappings from moduli spaces of Del Pezzo surfaces to ball quotients. The associated lattice groups of hyperbolic space are generated by complex reflections. We wish to

study the question of reality for the moduli space and the period mapping. Basic examples that have been worked out in the literature are the configuration space of six points on a line (by Yoshida) and the moduli space of cubic surfaces (by Allcock, Carlson and Toledo). Our main focus will be to extend these methods for the configuration space of eight (and twelve) points on a line and for the moduli space of quartic curves. After understanding these two key examples we wish to understand the general principles of real geometry in this context.

### Arithmetic and motivic aspects of the Kuga-Satake construction

The central theme of the project is the Kuga-Satake construction. The first main goal is to prove the Tate conjecture for surfaces of geometric genus 1 in characteristic 0. This would provide a new class of varieties where, using advanced techniques, we can obtain positive results on one of the fundamental open problems in algebraic geometry. A second main topic is the question whether the Kuga-Satake correspondence is given by an algebraic cycle, as predicted by the Hodge conjecture. This is a fundamental open problem. Related to this is the question whether we can define a Kuga-Satake construction over an arithmetic base; this leads us to study the morphism of moduli spaces given by the Kuga-Satake construction. Our goal is to prove that this morphism is defined over a number field and that it extends to mixed characteristics.

#### 3.2.2 Curricula

The MSc programmes within the IMAPP are two-year programmes. Mathematics MSc students in the IMAPP department have a limited number of compulsory courses they should attend within the IMAPP and are next to that part of the Dutch Master Program in Mathematics (Mastermath). This is a national programme: every semester the Departments of Mathematics of Dutch universities organise joint courses in mathematics.<sup>2</sup>

The MSc programmes are offered in four tracks: a Research track, a Communication track, an Education track, and a Management track. At this moment, only the Research track has a complete program in the English language. The other tracks are primarily aimed at the Dutch market and the Dutch educational system, and are therefore taught in Dutch.

In one of the MSc courses in the academic year 2013/2014 a woman lecturer was teaching, together with a man lecturer. In all other MSc courses, all lecturers were men. The woman lecturer is an assistant professor on a permanent 0.8 FTE contract. The percentage of female students varies across the MSc programmes offered by IMAPP (see Table 5).

<sup>2</sup> http://www.ru.nl/opleidingen/master/algebra-topology/mastermath/

Table 5: Nr of students enrolled in MSc programmes IMAPP 2013/2014

MSc Programme	Total number of students	% female students
Mathematics	54	33%
Physics and Astronomy	62	19%

Most of the descriptions of the course aims refer to "the student" or "students". In two Particle Physics courses, the descriptions refer to the masculine form of students only, for example: "The student has a good knowledge of strong interactions (QCD) of the Standard Model (SM) and is able to calculate basic QCD Feynman Diagrams. He knows about the partonic structure of the proton" (Particle Physics Phenomenology). In two courses, the descriptions refer explicitly to both masculine and feminine forms, for example: "The student will familiarize him/herself with the newest observatories connected to astroparticle physics and their implications on our understanding of the origin of these particles" (Astroparticle Physics).

None of the MSc courses mention gender in the content description. The next section contains shortened descriptions (some translated from Dutch into English) of every course. Considering the language of the course descriptions, five of the courses seemed to be lectured in Dutch (four from the mathematics MSc programme).

#### Computer algebra

Introduction in the computer algebra. Focus is on algebra and algorithms.

# **Complexity Theory**

Complexity theory is an area at the interface of mathematics and informatics in which problems are classified according to the necessary means to solve them.

#### Regression Analysis and non-parametric Statistics

The linear model and logistic regression are the most widely used statistical tools, and therefore also the most widely abused tools. When analysing data, a mathematician should be aware of all the pitfalls that could be there. This course intents to make the students aware of this, and offer solutions and alternative methods to analyse data, such as non-parametric shape-restricted regression.

#### Reële Functies (Real Functions)

The course deals with functions on an interval.

Forceren (Onafhankelijkheidsbewijzen in de verzamelingenleer)

The main aim is to gain insight in the way Paul Cohen proved a function 50 years ago with the method that Goedel used 75 years ago.

#### Numerical Methods

This course covers theoretical properties and practical aspects of numerical methods.

# Particle Physics Phenomenology

Introduction to the elements of the Standard Model of elementary particle physics

#### Theoretical Foundations of Elementary Particle Physics

For a complete overview of particle physics, this course can be combined with the course 'Experimental Foundations of Elementary Particle Physics'.

# **Nuclear Physics**

Elementary nuclear properties, Semi-empirical mass formula, Shell model, Single-particle aspects, Collective models. Nuclear instability, Interactions of radiation with matter. Detection methods for radiation, Biological effects of radiation, Industrial applications, Nuclear medicine: CT-scan, PET-scan, MRI-scan, Radiotherapy. Nuclear power generation: Fission. Nuclear fusion: Nucleosynthesis

# **Professional Preparation**

This course prepares for the transition from being a student to physicist or astronomer on the job. Under the guidance of the trainer a CV and a letter of application will be composed and commented on in a group process.

#### Cosmology

Cosmology is one of the fundamental topics in modern astrophysics. In these lectures we will consider the physical, astrophysical and observational foundations of modern cosmology.

#### Telescope Observing

Astronomical observations are obtained on large scale international observing facilities. The student will spend a number of nights at an observatory obtaining observations and doing first line data reductions.

# **Quantum Field Theory**

This course provides an introduction to the modern concepts of quantum field theory, formulated in the canonical framework. Special attention is devoted to the explicit calculation of physical observables, like scattering cross-sections and decay widths.

#### Monte Carlo Techniques

The course is an introduction to solving problems using random numbers. As primary example, the problem of multi-dimensional integration is treated.

#### *Introduction to String Theory*

In this course an introduction to string theory will be given. At this moment string theory is the most important candidate for a quantum theory of gravitation and all other interactions, capable of describing not only gravity, but also the strong, weak and electromagnetic interactions as we know them.

#### Data Analysis

The course will introduce basic statistical principles and approaches for analysis and interpretation of experimental data in physics and other sciences.

#### **CERN Summer Student Programme**

The CERN Summer Student Programme offers undergraduate students of physics, computing and engineering a unique opportunity to join in the day-to-day work of research teams participating in experiments at CERN in Geneva, Switzerland. Beyond the outstanding first-class scientific value of their stay, the selected students will find working in a multidisciplinary and multicultural environment an extremely enriching personal experience. It is a once-in-a-lifetime opportunity to make valuable and long-lasting contacts with other students and scientists from all over Europe. Selection is done in several stages. Four positions for the Netherlands are available in the programme for CERN staff to select candidates. Candidates for another four positions are selected by the aforementioned Dutch committee that also ranks the applications.

#### Student Seminar Particle and Astrophysics

Each class starts with a student giving a seminar on a chosen topic with a duration of 30-45 min. Following the presentation, the other students in the class asks questions and give feedback on the style and contents of the presentation. The instructors may also provide comments

#### Introduction to C++

C++ has become the lingua franca of modern computer programming, especially where large software projects are involved and efficiency is an issue.

#### Astroparticle Physics

Astroparticle physics is a quickly growing field, where charged particles (cosmic rays), neutrinos, and very high energy gamma-rays (> 100 GeV) are used to probe the Universe. An overview will be given of the current state of the field.

#### Introduction to Particle Physics Experiment Analysis

The analysis of data for particle physics experiments is explained from detector concept to interpretation of measurement in the theory. Special emphasis lies on various kinds of simulation, the statistical treatment of the data, fitting techniques, event classification, significance and exclusion limits.

#### Cosmic Magnetism

Magnetic fields are found on all scales in the Universe: from the Earth's magnetic field to the field of the Sun, stars and entire (groups of) galaxies. We discuss these fields using the framework of magnetohydrodynamics (MHD), a theory that describes magnetic fields in highly-conducting gases. We also show a number of astrophysical applications, and consider the question of the origin of these fields.

# Advanced Stellar and Binary evolution

This course covers the advanced stages of evolution of stars, both single and in binary systems.

#### Nikhef Topical Lectures

These topical lectures typically comprise three full days and need some preparation.

#### Lie Algebras in Particle Physics

Symmetries and group theoretical methods play an important role in many areas of physics, e.g., when constructing conserved quantities of a given physical system. In this course we discuss the corresponding mathematical background, studying Lie groups, Lie algebras and their representations. The course is aimed at students in both physics and mathematics, and standard for students in mathematical physics.

# Asteroseismology

Asteroseismology gives a unique opportunity to study the interior structure and composition of stars through the study of (non-radial) pulsations.

# 3.3 MAPPING A GENDER DIMENSION IN EXISTING RESEARCH AND CURRICULA – SSH department

The IMR has five multidisciplinary research groups of which one is dedicated to gender research. This research group *Gender and Power in Politics and Management* aims to contribute to a better understanding of the dynamics of power and gender in different contexts, and with this knowledge to help reduce gender inequalities in society. It does not focus exclusively on women but also studies the position of men in society: are all men privileged or just those from higher socioeconomic classes? The group consists of about 25 researchers who perform multi- and interdisciplinary research.<sup>3</sup>

# 3.3.1 Research projects

Seven of the project managers were women, 13 were men. 14 other team members were men and six were women.

We divided the research projects into four different categories:

- 1. Gender as a core theme
- 2. Gender mentioned
- 3. Gender potential
- 4. No gender

In the first category, gender is the main theme of the project. In the second category, gender is mentioned in the project description, but it is not the core theme. In the third category, gender is not mentioned in the project descriptions, however the course

<sup>&</sup>lt;sup>3</sup> http://www.ru.nl/nsm/imr/our-research/themes/gender-power/

contains gender-related themes such as power, health, work-life, etcetera. In the fourth category, gender is not part of the project at all. Five of the twenty analysed project descriptions contain gender-related or gender themes. Two of them have gender as a core concept.

The next section contains shortened descriptions of the research projects in the IMR.

#### 3.3.1.1 Gender as a core theme

#### STAGES

The topic of this project is directly related to gender. The four-year STAGES (Structural Transformations to Achieve Gender Equality in Science) project aims to identify dynamic processes regarding gender equality in research organizations. Besides, the project aims to stimulate organization learning about gender topics. The project is financed by the EU 7th framework program, and contains a co- corporation with different research organizations in Italy, Denmark, Germany and Romania. The project has a duration of 4 years (2012-2016). In the Netherlands, the project covers the following topics: Change in organisation culture, Work-life Balance, Early career development, Discussing gender stereotypes and horizontal segregation, Implementation of a gender dimension in research and methods, Promoting leadership of women in research practices, and Actions to promote leadership of women.

Verankeren van Duurzame Diversiteit in Organisaties (Sustainable Diversity in Organisations)

The topic of this research is directly related to gender, as it focuses on creating more (gender) diverse organizations in the Netherlands. This VENI grant project from the Dutch national science foundation (NWO) conducts a large scale case study research on organizational learning and change towards gender and ethnical diversity. The proposed research builds a theoretical framework on sustainable change towards diversity firstly by combining and contrasting concepts from diversity studies, organizational change theories and studies on organizational learning, and secondly by connecting learning at the individual level of change agents with learning at the organizational level. The main question addressed is how do change agents institutionalize sustainable change towards diversity in organizations? This research analyses the strategies, networks and resources used by change agents at the micro-processual level to develop the capacity of an organization to become a more inclusive organization.

#### 3.3.1.2 Gender mentioned

# **EUBORDERSCAPES**

EUBORDERSCAPES (Bordering, Political Landscapes and Social Arenas: Potentials and Challenges of Evolving Border Concepts in a post-Cold War World) reflects very different ways in which political and social borders condition our understandings of Europe. The research issues centre on the tension between 1) the defining of the borders of Europe and Europeanisation in political and socio-cultural terms, 2) the European inner and external border nexus between liberty and security, 3) the development of cross-border

landscapes and cross-border integration in cases that range from (post)conflicts to harmonious co-existence.

This project will develop several research dimensions. These include one dimension that is gender-related and is described as follows:

The development and consequences of everyday forms of transnationalism, border-transcending, border-negotiating and networking, both within the EU and between the EU and "third countries". Everyday transnationalism is closely linked to issues of intersectionality (e.g. age, gender, ethnicity and sexuality) as part of the negotiation of borders for work, family, emotional and other reasons. This will also have direct impacts on work, welfare and immigrant rights that could challenge national welfare systems.

However, since this project is part of a very large consortium, we do not know if the participants from the IMR will be involved in the part of the project that is gender-related.

# 3.3.1.3 Gender potential

#### Gentrification 2.0

This is not a gender-dedicated project, however it refers to different social, ethnic, and economic compositions, which can be gender-related themes. The project is entitled Practices and policies for neighbourhood improvement: towards 'Gentrification 2.0' and is about improving inner-city neighbourhoods characterized by mixed social, ethnic, and economic compositions. Building on assemblage theory, the project adopts a thoroughly interdisciplinary approach to understanding how different social, economic and spatial processes coalesce in shaping neighbourhoods, including their problems and potentials. A core statement is that, despite much criticism, gentrification remains an important strategic concept, which if well elaborated and supported, can infuse new approaches towards neighbourhood development.

#### Systeemdynamica in de zora (System dynamics in the care industry)

This is not a gender-dedicated project, however the inclusion of power processes can indicate attention to gender relations. This research explores the role of power by applying social exchange theory to the communication process. According to this theory, differences in power between two actors influence their behaviour; the larger the power differences between the two actors the less likely they are to interact and vice versa. A relatively unexplored area of group model building studies concerns the role of power during discussions, in particular the tendency to sustain hierarchy and exert one's acquired power during discussions. In general, this behaviour is not helpful in designing optimal solutions.

# 3.3.1.4 No gender

Tools for Orchestrating Value Chains for Sustainability in New Product Development

The TOV project investigates how sustainability consideration can be mainstreamed in product development processes. It adopts an ecosystem perspective and addresses the entire value network such as suppliers, end users, local communities, NGOs and government bodies. These ecosystems need a more horizontal form of management to achieve a 'fair deal' for all involved. Tools and guidelines will be developed and to evaluate environmental, social and economic aspects and for orchestrating stakeholder relations across the value network. The aims of the project are to contribute a set of tools that are not simple prescriptions but 'handles for reflective practice' in managing sustainability issues during innovation activities.

# Breng Kenniscentrum 2013

The aim of the project is to bring together as much knowledge as possible and to join forces in order to optimize the regional public transport and therewith to improve the livability and reachability of the city region.

# Climate Proof Cities

The aim of the project is to enhance the adaptive capacity and reduce the vulnerability of the urban system to climate change. Working with various stakeholders, strategies and policy tools are developed for the adaptation of cities and buildings. Research is carried out within the broad context of urban development that is influenced not only by climate change but also by social, environmental and economic developments, and the urban system of governance.

#### Construction of a Stakeholder

Alliander, a distribution network operator, has the ambition to improve the way they involve stakeholders in their decision making process. At this moment Alliander experiences difficulties implementing this ambition. They find it hard to elicit the goals of stakeholders. As a consequence, stakeholder goals remain unmet. The objective of this research project is to offer the strategy department of Alliander recommendations concerning how to improve the decision making process, by designing and performing a group model building intervention and evaluating the results.

#### Innovation and Growth, Raising Productivity in Developing Countries

The project aims to identify factors, institutions, and policies that can increase innovation and productivity in low income countries. The project is expected to produce (i) robust research evidence on how to increase innovation so as to raise productivity and to support faster economic growth and job creation. An additional element in the project is (ii) policy development and dissemination from research outcomes in consultation with policy makers in Africa and Asia. Lastly the project includes (iii) capacity development – staff training - of counterparts overseas.

#### STAR-FLOOD

STAR-FLOOD stands for: "Strengthening and Redesigning European FLOOD risk practices: Towards appropriate and resilient flood risk governance arrangements". The project is focused on analysing, explaining, evaluating and designing policies to better deal with flood risks from rivers in urban agglomerations across Europe. The results of this ambitious project are expected to be highly relevant for policies and law at the European, national and regional level and for the development of public-private partnerships.

# The Governance of Adaptation to Climate Change

The consequences of climate change are starting to become manifest. Adapting the Netherlands to the consequences of climate change is not just a technical issue, but also a demanding matter of governance. The Governance of Adaptation consortium works on knowledge for governance arrangements that can contribute to realizing adaptation options and to increasing the adaptive capacity of society.

Help, a peak?! The use of innovation-based management by medium-sized municipalities. This project aims to provide insights into a locale/regional cluster governance structure prospectively involving civic entrepreneurs, that facilitates linkage of cluster policy development to strategic knowledge and process and produces collectively determined interventions. This will enable municipalities to refine their economic cluster policy.

Keuzevrijheid binnen en tussen pensioenfondsen (Freedom of choice within and between pension funds)

The aim of the project is to study the economic and political aspects of the introduction of more freedom of choice for participants and employers in the Dutch pension system. The research question is: How can freedom of choice and collectively organised solidarity be combined? This question will be answered by studying: a) the individual opinions of employers and employees in the Netherlands, b) the experiences with freedom of choice of a number of European countries with similar collective supplementary pension systems.

Cross-border shopping practices and historical representations of the other side: analysing feelings of unfamiliarity along the Dutch-German border in the 19th and 20th century

The aim of this project is to trace the effects of changing historical representations of rational and emotional push, pull, keep and repel factors on leisure activities in general and shopping practices in particular, along the Dutch-German, German-Polish and eastern Polish borders. The project will not only contribute to a better understanding of processes of integration and fragmentation in border regions, but also provide further insights in the interplay between contemporary practices (mainly in a spatial-geographical sense) and historically grounded representations (especially in the socio-psychological sense).

Food for thought and thought for food, the local-global entanglement of the slow food movement

Today, local and global forms of social interaction are intertwined in increasingly complex ways and it is this interaction which enables 'local' practices as well as global modes of governance. This applies in particular to social movements that face the challenge to reconcile the needs for 'grassroots' creativity, flexibility and alternativity with the drive for stronger ideational and organisational coherence worldwide. This project will develop and apply a semiotic network approach to assess the recent evolution of the slow-food movement addressing this core question. The approach draws from recent advances in network analysis, content analysis and computer aided multi-site ethnography.

#### Future Value Chains of Architectural Services

This research aims to outline new roles of architects and to develop governance models for architectural services in the value networks between architectural firms, their clients and other stakeholders in the field. Disciplinary approaches from architecture and construction management are integrated with theoretical approaches from business administration. The contribution of this research is 1) a more systematic analysis of institutional forces based on the concept of the organisational field, and 2) the development and testing of possible governance models for the architectural field.

#### **Grounding Land Governance**

This research programme investigates how land governance evolves in post-conflict situations, as an outcome of the interaction between multiple stakeholders, including government, traditional authorities, NGOs, and local people. Thereby, it looks in particular at how decentralization influences relations of governance, how it impacts the legitimacy and authority of local land tenure institutions, and how it affects the resolution of land conflicts. It builds around comparative analysis of case studies from Uganda, Burundi and South Sudan.

# **Public Negotiations**

This research project aims to study differences between public servants and private sector employees in negotiations both in terms of process and outcomes, in order to develop a theory on public sector negotiations and to design a teaching module for Public Administration students. The main research question is: What are the differences between negotiations by public servants versus private sector employees, in terms of negotiation skills and strategies (process) as well as outcomes?

# Parkagent

This project aims at developing Parkagent, an innovative parking model that can simulate the behaviour of thousands of individual car drivers at the same time. The simulation model can calculate the effects of changes in parking policies and provide governments, project developers, and private parking operators with crucial information.

# 3.3.2 Curricula

In 2013, there were 31 MSc specializations in the IMR. Of the 99 reported MSc courses in this report, 59 were mandatory courses and 40 electives (see Table 4). 15 of the 99 courses were lectured in Dutch.

Table 6 shows that there are fewer women lecturers than men lecturers in the IMR, for both the BSc and MSc programmes. Looking at the courses that full professors teach, women full professors more often teach elective courses than mandatory courses. Women assistant professors more often teach mandatory courses than elective courses. Of the 99 MSc courses analysed, 23 courses had a woman course coordinator (23%, see Table 4). Also, there are fewer women than men students in all MSc programmes (see Table 7). Eight of the gender-related courses have a woman course coordinator, 13 of the gender-related courses have a man course coordinator.

Table 6: Nr. of mandatory and elective courses taught (both BSc and MSc)

				1
Nr of mandatory courses taught	Men	Women	Total	% Women
Full professors *	22	8	30	27
Associate				
professors	23	4	27	15
Assistant				
professors	26	18	44	41
Assistants **	19	7	26	27
External				
Assistants **	7	2	9	22
PhD students	2	6	8	75
Other	2	3	5	60
Total	101	48	149	32

Nr of elective courses-taught	Men	Women	Total	% Women
Full professors *	15	8	23	35
Associate professors	18	3	21	14
Assistant professors	27	11	38	29
Assistants **	11	2	13	15
PhD students	3	2	5	40
Other	1	2	3	67
Total	75	28	103	27

<sup>\*</sup> This category includes professors by special appointment

Table 7: Nr of students enrolled in MSc programmes IMR 2013/2014

MSc Programme	Total nr. of students	% female students
Public Administration	118	43%
Business Administration	354	45%
Economics	147	33%
Human Geography	170	44%
Environmental Sciences	19	47%
Planning	120	40%
Political Science	78	28%

<sup>\*\*</sup> With assistant is meant teacher (docent) according to the Dutch system

In Table 4 we only report the sex of the course coordinator, as the number of courses is too large to analyse the sex of all lecturers and the sex of the lecturers has to be searched online manually.

21 of the MSc courses mention gender or gender-related concepts in their content description (21%), of which 11 were elective courses. The next section contains shortened descriptions (some translated from Dutch into English) of the courses that are gender-related. In Table 4, the other courses are also listed. We divided the gender-related courses into four different categories of courses:

- 1. Gender as a core theme
- 2. Gender mentioned
- 3. Gender potential
- 4. No gender (these are listed in Table 4)

In the first category, gender is the main theme of the course. In the second category, gender is mentioned in the course description, but it is not the core theme. In the third category, gender is not mentioned in the course descriptions, however the course contains gender-related themes such as power, health, work-life, etcetera. In the fourth category, gender is not part of the course at all.

The next section contains shortened descriptions of the MSc courses in the IMR.

# 3.3.2.1 Gender as a core theme

# Gender and Diversity in Organizations

This is a mandatory course for the students in the MSc specialization Strategic Human Resource Management. This course reflects the fact that much diversity research today is inspired by theoretical and empirical studies on gender in organizations. Within management and business studies, the attention for questions that pertain to the composition and qualities of the workforce has grown. Managing diversity is a hot topic for many organizations that are confronted with a workforce that is becoming increasingly heterogeneous due to factors such as migration, emancipation, ageing and international cooperation. Coping with the differences between men and women, older and younger colleagues, and people from different cultural backgrounds and educational backgrounds has become an issue for employees and managers in modern organizations. To attract and retain a diverse workforce is one of the key challenges facing modern human resource managers and general managers. One of the books students have to read for this course is: Kirton, G. & Greene A. (2010). The dynamics of managing diversity. A critical approach. 3rd Edition. Oxford: Butterworth-Heinemann.

#### Gender Theories and Equality Policies

This is an elective course. The course starts with presenting different visions on gender and gender equality across Europe by discussing different feminist positions and their accompanying political strategies to achieve gender equality. The particular organization of labour, intimacy and citizenship in different settings will be studied to understand the

(re)production of gender inequality. We will also study how gender is related to other structural inequalities (multiple discrimination; intersectionality). We will particularly give attention to the strategy of gender mainstreaming by way of exploring how the EU deals with achieving their aims to combat discrimination and promote equal treatment. Secondly, we will introduce the perspective of Critical Frame Analysis to study the construction of gender related issues as a policy problem and the presented solution. We will also explore who has a voice (actors like the state, social movements or experts) in framing gender issues in the political arena. Using this framework, we will look into the normative question of when society will be gender just.

# 3.3.2.2 Gender mentioned

#### Forms of Responsible Organizing

Organizations are increasingly expected to act in a responsible manner, both in their contributions to society (their products, services and possible side-effects of the production thereof) and in their contributions to the development and behaviours of organization members (their capacity for learning on the job, professionalization, moral behaviour). This course aims to present students with an organizational design and development perspective on this topic and aims to encourage students to independently develop a critical perspective on theories on and practices of responsible organizing. Students can then sign up for one of four parallel tracks in which they will be working on their papers. One of the tracks is called 'Learning by organizations, teams, and women'. Therefore, there is explicit attention in this course to women in organizations. One of the prescribed readings for this track has a gender-related theme: Eby et al. (2005). Work and family research in IO/OB: content analysis and review of the literature (1980-2002). Journal of Vocational Behavior, 66(1), 124-197.

# Group Model Building II

GMB II focuses on messy problems with social conflict and the role of power in such conflicts.

After having finished this course, students know why and how Group Model Building (GMB) is used in messy problems with social conflict in which power differences play a role. This is not a gender-dedicated course, however the focus on power differences might signify a relation to gender issues. As one of the guest lecturers in this course is one of the department's gender experts, we asked her for some more information and the course manual. Her guest lecture focuses entirely on gender and is titled: "The role of GMB in power and conflict, the case of gender". The lecturer uses example from her experience in practice and her research provides students with projects on gender. However gender is not the main theme of this course and would be removed from the course entirely when the guest lecture on gender would be cancelled.

#### Contemporary Debates in Political Theory

This course offers a thorough overview of the depth and breadth of the discipline presented in the form of debates between thinkers and their perspectives. The current research agenda of political theorists across the globe determines the choice of topics - with at least one topic to be freely, but collectively, chosen by the students. Previous debates were animal advocacy (rights, welfare and capabilities); justice from the

perspective of socio-biology; cosmopolitanism; the misfit between justice and democracy; true evil (from Robespierre to Dutroux); how to democratically constitute a 'people' without circular reasoning; 'hoes & bitches' versus 'power girls'; justice for future generations; religion, anti-religion and a-religious thought; Schmitt, Mouffe and agonism, etc. This is not a gender-dedicated course, however there have been explicit attention in this course to women ('hoes & bitches' versus 'power girls'). The content of the course is subject to change, but gives room for gender(-related) topics every year.

# The Politics of Reform

This seminar focuses on the reform processes surrounding state initiated policies addressing inequalities in the affluent, democratic countries of the OECD and the broader European context. Historically, one of the core functions of social policy has been to reduce economic inequalities by insuring citizens/workers against the risks of old age, sickness, disability and unemployment. Early social policies were premised on the so-called 'male breadwinner model' and the absence of large-scale immigration. Over time, state initiated policies addressing inequalities in general and social policies in particular have expanded to encompass gender equality, the integration of immigrants and sexual equality. In this course, we will analyse the ways that social policies designed to provide protection against classic social risks or inequalities have been expanded and/or reinterpreted to take into account not only gender, but also 'new' social risks such as combining work and family. The course aims to study the politics of reform across social policies targeting different inequalities and sets out to learn from the best comparative work available on welfare state reform, gender equality reform, migration and integration reform and sexual equality reform in the European context mainly.

This course pays a lot of attention to gender equality and related issues and policies.

#### Multiculturalism, Diversity and Space

Contemporary societies are bound together but also divided along lines of ethnicity, gender, age, class, and sexual orientation. The course focuses on issues of recognition, identity, citizenship, integration and participation that are relevant to immigrant, gender and age groups, and ethnic and sexual minorities. In order to understand how multiculturalism and diversity are perceived and lived, the course is inspired by various theoretical perspectives which help us understand how markets, politics and institutions are connected to the inclusion and exclusion of specific social groups at the level of states, cities and neighbourhoods. Using these perspectives, you will be able to explain why citizenship rights are stratified on the state level, and what this means for access to resources and services on the local levels. The course also draws inspiration from empirical work in the field of multiculturalism and diversity. Human geography journals publish regularly on issues of immigrant integration, ethnic entrepreneurship, women and livelihoods, place and ageing, the meaning of home and belonging for queers, and so forth.

This course pays a lot of attention to gender, diversity, and inclusion.

# 3.3.2.3 Gender potential

#### Human Resource Management and the Flexible Workforce

In this course, the focus is on activating labour market policies and organizational policies that are introduced to increase labour market participation and mobility, and the recruitment and motivation of diverse worker categories, as well as the interlinkages between policies designed at the various levels. The central themes in the module can be viewed from various theoretical perspectives (such as institutional theory), and relate to the research interests of the lecturer. These interests include the promotion, adoption, implementation and use of flexible work arrangements, such as flexitime, telehome-working, New Ways to Work, part-time work or other work-family arrangements. The content refers to diverse workers. Taking into account the interests of the lecturer, the course possibly includes gender diversity.

#### High Performance Work Systems

This course focuses on high performance work systems. The much-debated relationship between HRM and Performance has occasionally moved beyond universal best practice, and academics tend to use a best system approach. However, this issue is not yet decided and it is unclear what this means and implies. At the same time, practitioners are uncertain about how to configure HRM in their companies. The main question is: what constitutes the synergy between policies and practices? What is the 'fit'? In this course we focus on the effects that bundles of policies (such as control and commitment policies) and practices (such as flexible rewards, profit sharing, participation in decision making, information sharing and work-life arrangements) have on various HR outcomes and on organizational performance. This is not a gender-dedicated course, however within the practices that are discussed a gender-related theme can be found.

#### Organizational Change

This course elaborates on the relationships between planned change programs, on their unintended side effects and on the continuous processes of emergent change. Therefore, this course focuses less on the explicit design and application of various strategies and methods of organizational change, and more on the social practices involved in organization design and organizational change. In particular, the course emphasizes the social dimension of interventions - such as resistance, acceptance and appropriation of organizational redesign - but also acknowledges and discusses power processes in organizational change. This is not a gender-dedicated course, however the inclusion of power processes can indicate attention to gender relations.

#### Research Traditions in Public Administration

What type of knowledge is scientific knowledge and how does it differ from other types of knowledge? Can scientific knowledge be relevant for policy making and public administration, and if so, how exactly can it be of relevance? Is rational deliberation about values and aims (political or otherwise) possible, or is this an area of mere taste and preference, or of power and manipulation? What is the role of experts or scholars in Public Administration? Do they have any particular responsibilities? If so, what are these

responsibilities and why these? These are the types of questions that are central to this course. To answer them we have to turn to Philosophy of Science, Ethics and Methodology. This is not a gender-dedicated course, however the inclusion of power in the course indicates a possible gender-related theme.

#### Current Issues in Globalization

In this course, globalization is used as a common framework for providing you with an in-depth understanding of numerous issues within international economics. These issues are typically linked to other disciplines, so that you can become aware of non-economic factors that are relevant for studying social-economic phenomena. Specifically, the course comprises the following themes: Globalization and the welfare state, Globalization and the fairness of trade, Globalization, inequality and human development. The last themes looks at the poorest countries and groups, as they can benefit least from the opportunities offered by globalization, implying that inequalities both within and between countries have increased considerably in recent decades. The Human Development (HD) approach is concerned about this negative side-effect of globalization, emphasizing that development is ultimately about people. This theme focuses on inequalities within and among developing countries, examining papers that are related to the three central pillars of the HD approach: education, health and enjoying a decent standard of living. This is not a gender-dedicated course, however the course has a theme related to inequalities and looks at poor groups, education, and health, which are possibly gender-related.

#### Changes in World Politics: The Rise of the BRIC Countries

In this course, we will address the BRIC phenomenon from several perspectives. To get an insight into the BRIC's potentials and challenges, the course focuses on four broadly defined issue areas: security & defense, human rights & democracy, economy & development, and welfare & environment. Within these issue areas, the course addresses the role of national governments and bureaucracies, political parties, corporate actors, civil society organizations, and indigenous communities as well as the impact of and for trans- and international actors. Throughout the course, we will use IR and IPE theories as well as postcolonial and critical approaches in order to explain the making and shaping of BRICs. This is not a gender-dedicated course, however the approaches used in the course as well as the issue areas are possibly gender-related.

#### Urban Networks, Accessibility and Mobility

The benefits from increased vehicle traffic volumes and speeds are recognized, but reductions in walkability and land use accessibility are often overlooked. Such planning practices can result in decisions that increase mobility but reduce overall accessibility (for example, by reducing travel options and stimulating sprawl), and tend to undervalue other accessibility improvement options (such as more accessible land use development, and mobility substitutes such as telework). More comprehensive analysis can help decision-makers identify more optimal solutions. There is no single way to evaluate accessibility. Different planning issues require different methods to account for different

users, modes, scales and perspectives. For example, neighbourhood planning requires more walkability analysis, while regional planning requires more analysis of automobile, bus and rail travel. Evaluating access for lower-income populations differs from that of wealthier and business travellers. This course provides guidance for applying various types of accessibility analysis in transport planning. This is not a gender-dedicated course, however mobility, telework, and lower-income populations indicate possible gender-related themes.

#### Global Political Economy

This course focuses on the political dimensions of global economic power relations. This course seeks to explain why global economic relations are structured the way they are, and to uncover the political content of the changing nature of state-market relations in the context of post-War capitalism, and the emerging neo-liberal world order. The course centres on the dynamic interplay of agents and their interests in shaping and contesting the nature of global political economy power relations, as well as the underlying material and institutional structures enabling or hindering them. As a focal point of discussion, the global distribution of wealth and power that results from the economic interdependencies spanning the globe are addressed. Besides identifying important agents that transform the current system and their institutional strongholds, both internationally and domestically, the important question of cui bono, i.e. who are the winners and losers of the current system, are posed. This is not a gender-dedicated course, however the focus on the distribution of wealth and power indicates that this course includes a gender-related theme.

#### Power in Political Theory

In this course, power, the mother of all political concepts, receives our full and well-earned attention; it is a concept that is too easily taken for granted or ignored by political scientists, political theorists and politicians. The course opens with the discovery that authority and autonomy are mutually exclusive. Next, we discuss a representative selection of answers to the anarchist challenge - answers that turn out to be only halfway successful, at best in legitimizing the use, or threatened use, of force or power. The Anglo-Saxon tradition seems to be inspired by a desire for liberal tolerance, a desire to protect and make room for, a diversity of individuals and of views on the good life. Sooner or later, however, ideas of the good life contradict one another, and one idea has to give way to the other, either under political pressure or through 'reasonable' argument Using the three conceptions of power of Steven Lukes, combined with Foucault's notion of discursive power, we re-examine the problem of the incompatibility of power and morality. This is not a gender-dedicated course, however the focus on power indicates that this course includes a gender-related theme.

### Recognition, Redistribution and Citizenship

The subject of this course is the relationship - or tension - between recognition, redistribution and citizenship. The recognition-theoretic approach is a different, alternative approach to social justice. The debate between Axel Honneth and Nancy

Fraser clearly brings out the contrast between the two. Honneth argues that 'recognition' is the fundamental moral category and that redistribution should be seen as derivative. Fraser, on the other hand, denies that questions of redistribution can be translated into recognition; that is why she defends a dualistic framework in which the two categories are interpreted as dimensions of justice that cannot be reduced to each other. Currently, the emphasis in this whole debate is on what citizens can rightly expect or demand: whether this is being put in terms of 'recognition' or 'redistribution.' The question this raises is: what kind of institutions and practices can play a cultivating role in this regard, such as education, political participation and the city? This is not a gender-dedicated course, however important role Nancy Fraser plays in this course indicates gender-sensitivity of the topic.

#### Theoretical Approaches to Comparative Politics: Actors & Institutions

Comparative politics has a rich theoretical, comparative, and empirical tradition. This course addresses the core theoretical debates in the discipline. It focuses on rational choice, the analysis of culture (survey oriented, hermeneutical and post modern), and it examines structural approaches, covering neo-institutional, historical institutional, and collective action models. These theoretical tools are then used to examine the core concepts of comparative politics. Topics covered will consist of the rise of the modern state (neo-Marxist, liberal, institutional), concepts of power, pluralism, elite theory, civil society, social movements and nationalism. This is not a gender-dedicated course, however the inclusion of power in the course indicates a possible gender-related theme.

#### Globalising Cities & Hinterlands

Globalization has a great impact on the physical structure and social-economic fabric of cities all over the world. Approaching globalizing cities from the perspective of development geography means that much attention will be paid to socio-economic inequalities in cities, in both the North and South. In a different manner, globalization also impacts local structures and processes in rural regions, resulting in adaptations of existing social, economic and political structures, or the creation of new ones, which often traverse the geographical boundaries of local villages and regions. With regard to urban issues, development geography focuses on the position of marginal groups in society and their opportunities for emancipation. However, these same concepts can also be applied to rural contexts, given the rising inequalities between and within rural regions. Therefore, in this course special attention will be paid to processes of social exclusion, coping strategies and participatory policies which could lead to more equality. Special attention will also be given to the role of the informal sector in low-income countries. This is not a gender-dedicated course, however the course focuses on marginal societal groups and social exclusion, which are possibly gender-related.

#### International Migration, Globalization & Development

Migration, as one component of globalization, is increasingly recognized as being an important influence on local, national and global economies, both directly and indirectly. Recent attention to the scope of remittances sent by migrants to their countries of

origin (which in many countries has surpassed official development aid) has resulted in much interest from politicians, IGOs and NGOs, all keen to tap into the potential of these remittances, and the migrants themselves, for local development. At the same time migration is also looked upon as largely problematic, notably in countries that are largely recipients of migrants, albeit that similar perspectives can also be found in the so-called transit countries, and even in countries that have balanced in- and outflows of migrants. Understanding, and situating, migration within larger globalization processes, including their developmental impact, is therefore the main focus of this course. This course explores the role of South-North migration for development, not only in the global South but also the North. This is not a gender-dedicated course, however migration can be a gender-related theme.

#### **Urban and Cultural Geography**

Cities are the vibrant and dynamic focal points of our society. These diverse agglomerations of people, companies and organizations are locations for both innovation and conflict. Cities are regarded as creative places for creative people as well as conflictual places for divergent communities. Following the recent cultural turn in urban studies, which focuses on meaning, identity and the politics of difference, this course aims to provide you with a basis for understanding the main contemporary urban issues by looking at diversity in the city. In addition, we will analyse and critically evaluate the development of these aspects of urban life. The primary aim of this course is to develop students' critical understanding of the complex processes of urbanization. This involves analysing cultural, economic, political and social change in cities. This is not a gender-dedicated course, however identity, difference, and city life can be gender-related themes.

### 3.4 COMPARISON BETWEEN SSH AND STEM DEPARTMENTS

# 3.4.1 Staff composition

Within the STEM department IMAPP there is a lack of women lecturers; only one woman lectured in a MSc course in the academic year 2013/2014. The IMAPP board would like to increase the number of women staff in general, but also increase the number of women lecturers so they can be role models for (women) students. Within the SSH department IMR the staff composition is more balanced. About a third of the courses in the BSc and MSc programmes are taught by women (see Table 6). 23% of the MSc course coordinators are women (see Table 4). Among the IMR staff there are gender experts which is reflected in research and curricula; gender is a core theme in MSc courses and research projects. A number of researchers from the IMR are affiliated to the university's overarching multidisciplinary Gender Institute, in contrast to no researchers from the IMAPP.

# 3.4.2 Research projects

Looking at the research projects running in the year 2013, we found no gender-related projects in the IMAPP. In the IMR five of the twenty analysed project descriptions contain gender-related or gender themes (25%). Two of them have gender as a core concept. We divided the IMR research projects into four different categories: 1) Gender as a core theme (10%), 2) Gender mentioned (5%), 3) Gender potential (10%), and 4) No gender (75%).

The IMAPP had more externally funded projects of 200.000 Euros or more in 2013 than the IMR (36 vs 20). Three of the IMAPP projects exceeded one million Euros, whereas no project in the IMR exceeded one million Euros. In the IMAPP, three of the project managers of the analysed projects were women (14%). In the IMR seven of the project managers were women (35%).

#### 3.4.3 Curricula

Looking at the MSc courses of the 2013/2014 academic year, we found no gender-related courses in the IMAPP. In the IMR 21 of the 99 courses were gender-related (21%). Most of the gender-related courses in the IMR were found in the departments Business Administration (6 courses), Political Science (6 courses), and Human Geography (4 courses). Two of the courses have gender as a core concept. We divided the IMR MSc courses into four different categories: 1) Gender as a core theme (2%), 2) Gender mentioned (5%), 3) Gender potential (14%), and 4) No gender (79%).

It seems more obvious for a Management school to include gender in the curriculum as the field centers on the governance structures, management and performance of public and private organizations. However, we did see some potential for the IMAPP too, to include gender in their curriculum. Even though it is not referred to in the content description, some of the IMAPP courses could include a gender dimension. The content of the IMAPP course *Nuclear Physics* includes biological effects of radiation, and nuclear medicine (CT-scan, PET-scan, MRI-scan, Radiotherapy). This theme involves effects on human beings as well as medical tests that involve human beings. Therefore, we see the potential to include sex differences into the course.

The IMAPP course *Professional Preparation*, which prepares for the transition from being a student to physicist or astronomer on the job, could benefit from gender awareness of for example gender stereotypes in recruitment and selection procedures.

Finally, the CERN Summer Student Programme offers undergraduate students of physics, computing and engineering a unique opportunity to join in the day-to-day work of research teams participating in experiments at CERN in Geneva, Switzerland. Selection is done in several stages by a committee. The selection process could perhaps become more gender equal when selection committee members are gender aware. Also, lectures should be aware to encourage men and women students to the same extent to apply for the programme.

#### 3.5 CONCLUSION

Within the IMAPP, no reference to gender or Gender studies can be found in research and curricula. However, in the future gender might get incorporated in the IMAPP's research more, as in Horizon 2020 gender is a cross-cutting issue and is mainstreamed in each of the different parts of the Work Programme. According to Horizon 2020, integrating the gender dimension in research and innovation (R&I) content, helps improve the scientific quality and societal relevance of the produced knowledge, technology and/or innovation. This might lead the IMAPP to get more involved with gender as a theme in their research projects. There is no gender expertise among the staff of the IMAPP. However, there is some potential in the curriculum to include gender themes, particularly in the preparation for the profession.

Within the IMR, the number of courses and research projects with gender as the core theme or gender-related themes are quite substantial. 21% of the MSc courses have a gender-related theme integrated in their course, which can be considered exceptional for a management faculty. This can be partly explained by the number of gender experts among staff and the research group *Gender and Power in Politics and Management*. Nevertheless, there is more potential to include gender in research projects and the curriculum than is currently used. This is shown by the number of courses and projects that do not mention gender in their descriptions, but contain gender-related themes. Here too, we can expect an incentive from the Horizon 2020 funding program of the EU.

https://ec.europa.eu/programmes/horizon2020/en/h2020-section/promoting-gender-equality-research-and-innovation

# 4 ICELAND

# **4.1 INTRODUCTION**

In Icelandic law, Article 23 of the Act on Equal Status and Equal Rights of Women and Men no. 10/2008 specifically states that "Students shall receive education about equality issues at all educational levels" (Lög um jafna stöðu og jafnan rétt kvenna og karla, 2008, our translation). The University of Iceland echoes this legislation in its Equal Rights Policy 2013-2017 (2014), which emphasises the importance of gender mainstreaming at all levels of the organisation. It is with this legislation in mind that we in the following analyse two samples of curricula and externally funded research from respectively a STEM and a SSH unit at the University of Iceland. We do this in an effort to see if the reality of academic practice lines up with policy and legislation.

Some might argue that gender cannot be a part of everything and that our aggressive insistence on integrating gender everywhere is but an expression of the kind of tunnel vision we all get when submerged into our own field for too long. While it is true that our concern for gender issues is very much strengthened by the fact that we work with gender on a daily basis, it is important to keep in mind that Gender Mainstreaming is part of the European Commission's action plan for a reason. As such, the University of Iceland has a clear policy (at least on paper) to integrate gender onto every level of the organisation, which, from our perspective, naturally includes the science curricula and teaching plans.

It is also important to emphasise that the university equality policy states that a "requirement for research quality does not assume that everyone should conduct research into matters of equality, rather that everyone should take matters of equality into account in their research" (14). As such, we are not arguing that gender needs to be a part of absolutely everything. We are arguing that it needs to be integrated when appropriate, as in accordance with national law and University policy.

#### 4.1.1 Data Collection: Availability, Accessibility, and Transparency

Basic reliable data on externally funded research projects was available through two main sources. Information on locally and nationally funded research projects was available via the online database at RANNÍS (The Icelandic Centre for Research) and information on international projects funded by the 7th Framework Program were available via the University of Iceland website and via CORDIS (Community Research and Development Information Service). Whereas RANNÍS provided basic project descriptions in Icelandic and English as well as an overview of project team members, projects funded by the 7th Framework required online investigation for basic project descriptions and in most cases information on team structure was not available.

Externally funded research projects that were not funded via RANNÍS or the 7th Framework Programme were hard to track down. The School of Engineering and Natural sciences was able to provide us with information about the names of a few projects, but the names of individuals who formally received funding was unfortunately missing. Some of the projects we received information on in this regard did not state the amount

of funding either. The School of Social Sciences does not keep track of who receives funding. The University of Iceland supposedly keeps track of Nordic/Scandinavian research funding, but this data is extremely perfunctory with information being very loosely updated. We therefore decided that inclusion of this data would at best not yield any substantial findings.

Even so it quickly became clear that the total amount of data was too vast for proper indepth analysis. In order to get a properly sized sample we therefore decided to count only projects that received over €50.000 (equivalent to approximately 7.300.000 ISK at the time of writing) in external funding. Doing things this way also had the advantage of narrowing the focus to the projects that were considered most "important" by external fund administrators. In all, we mapped 36 different externally funded projects. 31 were from the School of Engineering and Natural Sciences and were headed by 21 men and 10 women respectively. In the School of Social Sciences a mere 5 individuals received funding over €50.000: 3 women and 2 men.

With regard to course curricula at the University of Iceland, we focused on the Department of Political Science and the Department of Physical Sciences respectively. It quickly became evident that there were two vastly different traditions for writing up course outlines at these two departments. The Department of Political Science kept all of its detailed course descriptions and curricula on one online hard drive that we were allowed access to after a single inquiry. The documents were relatively detailed and we were able to draw much information from them. In the department of Physical Sciences, however, things were very different. At first we were instructed to simply look at course descriptions in the online course catalogue on the university website, but when we specifically asked for course outlines or syllabi, that is, the documents that teachers circulate among students at the beginning of a semester, it became clear that this tradition was not practiced at this department. We were able to retrieve one example of a "course description" in Applied Biochemistry (see appendix), which had only a reading list as well as date, time and place of teaching. As such, these documents were simply not eligible for gendered analysis. With regard to the gender dimension at the participation level, numbers of students divided by gender for each course was unfortunately not available. Names of teachers were available in most cases, though at the Department of Physical Sciences the names of teachers were often not registered. In the appendix we have indicated the supposed gender of teachers by colour when possible.

Interestingly, our contact at the Physical Sciences department also reported an instance in which she had contacted a teacher for access to their teaching plans and course descriptions and was met with suspicion when she informed them about the purpose of the GARCIA project. This may or may not be a symptom of a broader tendency of resistance to gender equality-based initiatives within STEM fields.

# 4.1.2 Methods

When mapping the gender dimension of externally funded research projects, we looked mainly at the online project descriptions at RANNÍS and – in case of 7th Framework Programme funding – CORDIS. In the cases where an executive summary had been

prepared, we took that into consideration as well. The analysis was done according to the guidelines provided by the work package leader, and results reported when relevant.

Obviously, some research projects and curricula were not about gender. However, in our analysis we make a distinction between when gender is simply *not featured* and when gender is *excluded*.

That gender is not featured means that the given subject matter of a particular project or course does not have an obvious gender component following a basic analysis or that the average teacher cannot be faulted for not featuring gender because the connection between gender and the given subject matter is not immediately obvious or simply does not exist. For example, gender was not a component in a project called *Polaritonic TeraHertz Devices*. In this case gender was not featured because no one can be expected to integrate gender into the electromagnetic spectrum. In the same way, in case of curricula, a mathematics teacher cannot be expected to integrate gender into class material on critical string theory. Thus, in cases when gender was simply not featured, no in-depth analysis of the course or project in question was conducted.

However, when gender is excluded, it denotes a conscious or subconscious choice on behalf of a given teacher or researcher to exclude gender as a topic in a context where gender is obviously relevant. It means that the integration of gender in one way or another into a given course or project should be a matter of course and that the exclusion of gender does not give witness to a teacher's or researcher's "political neutrality", but, quite oppositely, to his or hers decision (conscious or otherwise) to not deal with gender as a topic to the extent that it deserves in the given situation. For example, if one writes a monograph on the history of the Icelandic electoral system and dedicate no space to talk about women's suffrage, this would be considered exclusion of the gender component, since women's experience is a huge and significant part of that history. Therefore, in cases when the integration of gender into a project or curriculum was or would be appropriate, an in-depth analysis was conducted.

#### 4.2 MAPPING A GENDER DIMENSION IN RESEARCH PROJECTS (STEM)

Unsurprisingly, gender was almost not featured at all among externally funded research projects in STEM fields. Of the 31 externally funded STEM projects from the University of Iceland, only one had a gender component. A project entitled *CONVERGE* focused on rethinking the concept of Contradiction and Convergence (the current international strategy for bringing down global emissions of greenhouse gases to a safe level) and developing both the philosophy and the tools for implementing what it calls 'Convergent Globalisation', which is to support "processes and structures towards the emergence of equity across and within all nations and generations, while remaining within the capacity of the planet" (Cordis, 2015b). The project emphasises the importance of transdisciplinary research on sustainability and herein especially participatory research, which "involves key concerns of gender and diversity in empowering different perspectives to be voiced" (Ibid.). In other words, in this project the natural and social sciences

intertwine and gender is duly recognised as an important factor in climate change policies.

The remaining **30** research projects (listed in the appendix) did not touch on gender whatsoever and after inquiry into the description of each project, our assessment is that, at this point, one would be hard pressed to integrate gender into most of these projects. One project entitled *CRISIS* came close to be subjected to further analysis. The project focussed on developing a new training system for critical incident management using an interactive simulation environment. While there are certainly indications that crisis management is an occupation with many gendered perspectives, especially in relation to expert profiling and work/life balance policies (Mäki-Rahkola & Launialla, 2012), we simply lack the expertise to see how something as technical as the creation of a simulation environment could take gender differences into consideration in a positive and transformative manner.

### 4.3 MAPPING A GENDER DIMENSION IN CURRICULA (STEM)

As pointed out, we did not gain full access to curricula or syllabi at the Department of Physical Sciences. In some cases we were able to gain access to publicly available course descriptions online. Unsurprisingly, gender was not mentioned a single time in these descriptions. Course syllabi, on the other hand, simply did not exist in the same form in this department as it did in Political Science (and most probably in other SSH fields we might add). We were, however, able to find a single course syllabus for *Applied Biochemistry* (see appendix). Unlike the course descriptions at the Political Science department, this one is but a single page long and describes no more than the name of the course, number of ECTS and lectures, a list of topics and a footnote on student lectures. Our contact at this particular department informed us that their course syllabi "are all alike". The reasons for this were cited by our contact as being rooted in department tradition.

Another reason why course syllabi were impossible to obtain might also be resistance and suspicion. Our department contact informed us that one teacher "saw no reason to send [his course syllabus] to evaluation in other countries" and decided not to share said information with us. If this was an unstated motivation in all cases it could either mean that there is an underlying suspicion towards gendered inquiries in this department or that the course syllabi really do not express anything whatsoever.

#### 4.4 MAPPING A GENDER DIMENSION IN RESEARCH PROJECTS (SSH)

As evident in the above, STEM related projects were more likely to receive external funding. On the other hand, projects associated with SSH topics appeared much less likely to receive external funding from the higher end of the scale. Only 5 out of 36 funded projects were SSH related. In 3 cases the funding was granted to women, in 2 cases to the same man. 1 project focused on gender, 2 were related to disability and 2 were STEM/SSH collaborative projects about Icelandic fisheries. In the following we analyse the projects in turn.

The project that had gender as a main topic was entitled *Icelandic Identity in Crisis: The Intersection of Gender and Racialization*. This project examined how Icelandic self-perception has been shaped by ideas of gender, race and nationality during its time of massive economic growth and subsequent collapse. It also analysed the extent to which national identity, whiteness and gender has shaped Icelanders' interaction with immigrants during times of economic crisis. As such, gender was a central part of the project, which was built on feminist theories of intersectionality in relation to the emergence of whiteness as a field of study in Icelandic academia.

The first of two projects on disability was entitled *DREAM: Disability Rights Expanding Accessible Markets*. The DREAM project was part of the Marie Curie Initial Training Network and was built on the cooperation between eight university partners spread across Europe. The University of Iceland offered two early stage research positions for this project. One research position was established to map out and analyse the possibilities for independent living and the development of user-led personal assistance across Europe. The other position pertained to the examination of the deinstitutionalisation of people with disabilities as well as an examination of the degree to which different European states ensured equal protection and non-discrimination. The project description contended that special attention should be paid to women's rights in this regard. As such, the project had a clear and unambiguous gender dimension that recognised the importance of an intersectional approach as per recommendation of the report on *Discrimination Generated by the Intersection of Gender and Disability* ordered by the European Parliament (Davaki, Marzo, Narminio & Arvanitidou, 2013).

The other project on disability, entitled *CDEVEM*, was about understanding parents' perspective on childhood disability as it sought to find qualitative validation for a previously developed explanatory model for the way in which parents of congenitally deaf children make decisions related to care. There was no trace of a gender dimension in the publicly available information, but given the long-standing tradition of emphasis on gender equality within disability studies, we decided to contact the main researcher directly for insights into the matter. They explained that the theoretical framework of the project departed from a fluid concept of deaf identity and was instead based on a poststructuralist approach, which means that the qualitative analysis would be sensitive to, among other things, gender issues, should they emerge. In this way the project made use of gender-sensitive methodology.

However, the principle researcher also maintained that it was difficult to say whether a focus on gender would yield any substantial findings. From a gender studies perspective, we found this statement to be slightly curious since there is quite a substantial amount of literature on gender-roles among parents with children with disabilities. To mention a few examples of what is available offhand, Willoughby & Glidden (1995) showed that mothers of children with disabilities are more likely to take on the primary role of homemaker while fathers "help out"; Gray (2003) explored the different meanings that mothers and fathers of children with high-functioning autism attach to disability as well as their different gendered coping-strategies, and Home (2002) has shown that there is a "hidden, gender-based oppression experienced by mothers caring for children with disabilities" (1). Thus, the amount of already existing gender-related literature on parents with disabled children is inconsistent with the idea that the integration of

gender into a project about that topic would not yield any substantial findings. Thus, this is an example of the *exclusion* of gender.

A STEM/SSH collaborative project entitled *ECOFISHMAN* focused on creating a Responsive Fisheries Management System (RFMS) with the potential to radically change approaches to fisheries management in a way that reallocated responsibility in fisheries away from centralised government onto fishers themselves (Cordis, 2015a). The only mention given to gender in the executive summary of the final report was when it was stated that "Gender distribution in decision-making" (Ibid.) was one of sixteen potential social indicators associated with RFMS outcome targets. There was no further elaboration on what this meant. Even so, one could argue that the prominence given to democracy and sustainability in this project gives witness to a broader philosophical emphasis on equality.

It could also be argued that the lack of attention paid to gender issues in fisheries becomes gendered in and of itself. According to Bank of Iceland's *Seafood Market Report* from 2013, approximately **6.900** of **9.000** jobs in the Icelandic fisheries sector are held by men, while women account for around **2.100** positions with **85%** of these consisting of fish processing on land (Statistics Iceland cited in Íslandsbanki, 2013). Consequently men were the main beneficiaries of the outcome targets of this project simply because they make up the majority of the work force in fisheries. Add to this that the democratic decentralisation outcome of the RFMS "gives *fishers* more responsibility for managing and reporting their own activities" (Cordis, 2015a, our emphasis), not the people processing fish on land (i.e. women). In this way, even though the project (which was fittingly named ECOFISH*MAN*) had an admirable democratic approach, the exclusion of gender as a central component more or less ignored women as a target group.

A similar fisheries project - also a SSH/STEM collaboration - entitled SOCIOEC was somewhat more specific about its gender angle. The project looked at the social and economic effects of management measures of the coming Common Fisheries Policy (CFP). The project aimed to work with different stakeholders in fisheries to develop different management measures that would give fishers, that is, mostly men, the incentives to overcome their worries about the many rules set forth by the European Commission, the CFP and the Marine Strategy Framework (Goering, Goti & Cardona-Pons, n.d.) The problem with the CFP in the past has been that it did not offer up the right incentives for fishers to think about sustainable exploitation of natural resources. Apart from concepts like employment, food security, worker safety and other things, SOCIOEC contends that sustainable development also has a cultural dimension consisting of "issues of ethical orientation and action-leading values, lifestyle debates, cultural diversity, traditional knowledge and skills, local and regional space of reasoning and acting, gender issues, etc." (Ibid. 120, emphasis added). Unlike the ECOFISHMAN project, SOCIOEC clearly states the role of gender issues in its project plan. Even so, it is obvious that the gender component takes up disproportionately little space in the project (i.e. "gender, etc.") and that - as in the previous example - the main target group is still overwhelmingly male in spite of women's important day-to-day role in fisheries. However, it is also mentioned in the project plan that qualitative interviews will be carried out with fishers and people surrounding fishers (Ibid.), which might be an incentive to include women working in on-land processing in the research.

In the latter two examples above, gender issues played a rather peripheral role. This is interesting as it stands in stark contrast to the role gender plays in fisheries related projects when Iceland advertises them to so-called "developing countries". For example, since 1998 the Icelandic Foreign Ministry has been offering a six month post-graduate training programme in sustainable fisheries to fellows mainly from Africa, Asia, South and Central America, and as the foreign minister himself has stated in relation to the programme, "gender equality and empowerment of women are key elements in the training" (Permanent Mission of Iceland to the UN, New York, 2014). One cannot help but wonder what happens to this unambiguous emphasis on gender equality when Icelanders themselves are the main target group of a project, and it arguably echoes a general tendency in Iceland to think of gender inequality as a problem for the developing world rather than one of national concern.

# 4.5 MAPPING A GENDER DIMENSION IN CURRICULA (SSH)

A first cursory look at curricula and teaching plans (syllabi) within the SSH department reveals that gender as an analytical angle at the Master's level is far from being considered a stable part of the political sciences. First off, it is positive to observe that there were no direct discriminatory references made to gender differences among students in the written learning objectives and outcomes. However, this is considered standard procedure within the stronghold of political correctness that is the University of Iceland. The mere absence of discriminatory language says little about actual gendered practices in the classroom or a teacher's interest in gender equality.

In terms of mere representation as an academic topic, the integration of gender in the political science curricula can be briefly summarised as such: Out of **29** courses, a total of **3** courses had gender as their main theme. In **9** courses gender was either recognised and treated as either an important aspect of the main topic in question or at the very least given mention. In **1** course, gender was not featured, arguably as a result of the more technical nature of the course in question (i.e. practical mathematics). In **16** courses gender was excluded. In **2** courses teachers made statements in course objectives that could be interpreted as concern for gender justice and/or representation in relation to classroom culture, and in **1** course a teacher unintentionally espoused a discourse that might have an excluding effect on equal gender participation. We will now look at these courses in more detail.

As regards the gendered content of the course curricula, there were 3 full courses at the Master's level where gender was a main theme. Unsurprisingly, these were all taught out of the Gender Studies study programme. One was an introductory course on Gender Studies for Master's students transferring to the MA programme, another course was a thorough overview of gender theories from black feminism to queer and yet another was a course on the practical application of gender studies (gender mainstreaming) in societal institutions. Each course was set at 10 ECTS.

Other courses, while not dedicated to gender, did give gender worthy mention. A prime example of the appropriate integration of gender was the course *Theories in International Relations* (6 ECTS). While not solely dedicated to gender, the course

provided a good all-round theoretical basis for the topic while treating gender as a naturally integral part of international relations. As such the eighth week of the course was about how gender and gender identity were important factors to consider in a still more globalised world. Another example was a course on Security and International Relations (6 ECTS), which had a module dedicated to feminism's relation to security. Yet another course - The power potential of small states in the European Union (8 ECTS) had a module on gender mainstreaming where the students were asked to consider the question: "The Nordic EU member states are pioneers and role models when it comes to gender politics and gender mainstreaming. Have they been able to promote their ideas and interests in gender politics within the EU?" Finally a course on mediation skills integrated gender by adding a module in the teaching plan entitled "Gender and culture — possible guest lecture." In these four cases it was not a question of gender being the main focus of the course, but simply of gender being integrated where appropriate and in accordance with the university's gender mainstreaming efforts to ensure "the integration of the equality dimension in all operations at the University of Iceland" (University of Iceland Equal Rights Policy 2013-2017, 2014).

Other courses where gender received worthy mention were for example in a practical course on research planning and execution of an MA thesis in which an article on politics of parental leave policies was featured as an example. Another such course was one on public administration, which added an article on gender budgeting to its module on budget planning.

In one course, gender was simply not featured. This might arguably be because of the slightly imperceptible connection that gender had with the topic in question. The course was dedicated to practical mathematics in quantitative research and one might therefore expect gender not to integrate in an obvious manner.

If we look at the gendered nature of all of these courses in terms of numbers, it is positive that around **10%** (3 out of 30) of courses offered at the Master's level in this particular department were mainly about gender. It is also positive that around **31%** (9 out of 29) made some mention of gender. If we put it like that, these numbers ring very positive. After all, if that many courses integrate gender, surely there is no reason to call for increased focus on gender-related issues among SSH academics in an Icelandic context. Or what?

We mention this only to draw attention to the fact that focusing on numbers as an adequate indicator of the representation of gendered topics is extremely limiting. It may sound grand to say that "up to 31% of our courses have to do with gender", but this number has little bearing on the fact that in accordance with national law and university policy, gender needs to be incorporated where appropriate (i.e. integrated in all operations) and often this was not the case.

For example, a course on Icelandic foreign relations since 1940 did not seem to integrate gender at all, which is puzzling given the extremely gendered "Situation" (Icelandic: Ástandið¹) in Iceland during the U.S. occupation (Bernharðsson, 1996). From a gender studies perspective, this is symptomatic of the problem at hand.

<sup>&</sup>lt;sup>1</sup> The "Situation" in Icelandic history refers to the influence of British and American soldiers on Icelandic women during the time of the Second World War.

In the description and reading list for a 6 ECTS course on *European Security Institutions* and *Small States* gender was featured very peripherally. The obligatory as well as the optional reading list for the course did not mention gender related issues. Towards the very end of the course description, however, in a list of "useful papers from European think tanks", that there is a mention of "Publications of ISIS-Europe, Brussels (specializing i.a. in Parliamentary, arms control and gender issues)". The course instructor herself also initiated an email correspondence in which she assured us that she did mention gender in relation to security while teaching. This reminds us yet again that course descriptions and curricula – while certainly indicative of a teacher's intentions to some extent – are not by any measure exhaustive sources of information.

In another course on the *Europeanization of Small States in Europe* (6 ECTS) students were, among other things, expected to "familiarize themselves with the potential impact of European integration on aspects related to domestic politics and political systems, democratic rule and collective identity". It seems odd that gender was not even minutely considered in this context. Finally, in a course on international relations and Iceland's place on the international scene, gender was also excluded as a topic of discussion.

There are many more examples of the exclusion of gender in contexts where gender is easily integrated, including a course on human resources and a course on leadership. The main point is that in the majority of courses, gender is excluded even when integration of gender is appropriate.

However, gender in course outlines is not just a question of how gender is integrated into the reading material and learning objectives and outcomes. It has as much to do with the discourse that teachers put forward in syllabi and course outlines. A course outline is, as we know, a student's first impression of the class that they are about to take. Apart from the way in which the actual teaching takes place, the way things are worded and laid out for the student prior to class participation plausibly has an impact on the mind-set with which students attend their first class. This means that gendered discourse in course outlines is relevant. Of the **29** courses offered at the Master's level in this particular department, **3** courses could be said to have a gendered discourse between the lines, i.e. the hidden curriculum.

An outline for an introductory course on gender studies adds the following paragraph:

We show each other respect. The course is attended by different individuals with different backgrounds, viewpoints, etc and thereby different experiences of society. In the course we discuss the results of different kinds of research, analyse ideas and concepts that pushes our understanding of societal mechanisms. This might be difficult for some and easy for others, and it is important that we all make an effort to listen to each other's views and show up well prepared and ready to participate in class discussion.

Pay attention to the fact that without mentioning gender directly, the teacher shows awareness of the fact that people have different (gendered) experiences and encourages students to take this into consideration when showing up for class. This is

one way for a teacher to counter the gendered preconceptions and privileges that students bring with them to class, and in this example it is done very subtly.

It can also be done more directly. In the outline for a course on European integration, the teacher takes pre-emptive measures by instructing the students to "Please be aware ... that I reserve the right to have the final say in the composition of the groups, as I want groups to be roughly similar in size and regarding gender and nationality of the participants". In this way the teacher actively takes measures to prevent gender segregation in his class and to ensure that working groups are as internally diverse as possible.

In a different course, however, the same teacher (unknowingly it would seem) fails to take into consideration the different gendered experiences of students. In laying out the rules for individual participation in classroom debate, he writes: "participation in this debate is mandatory ... If your performance does not meet the requirements, you may be requested to write a compensation assignment to receive credit for the debate." The intended meaning of this statement is obviously to set a high standard for classroom participation and to encourage students to come out of their comfort zone. But while the intended meaning is positive, the gendered subtext is another. It is a well-known phenomenon that "boys are more likely than girls to gain access to the public space of the classroom, and subsequently to hold the floor" (Baxter, 2003). This course outline does not take this into consideration and in this way it is skewed in favour of boys, who - on the whole - come to the class with the advantage that they have always been taught to speak when they want and to take up space. In this way one also runs the risk that students walk away with the experience that boys perform better than girls in classroom debates. This is not to say that one should not keep a high standard of active class participation, but incorporating a critical gender awareness into one's teaching practices and the way one writes up a course outline might be a way to counter negative gender dynamics. From personal experience we can attest to the fact that something as simple as kindly asking students to be aware of granting space to those who struggle with speaking in big crowds can make an immense difference.

#### 4.6 COMPARISON BETWEEN STEM AND SSH

The first obvious difference between the respective STEM and SSH units is that STEM related research receives a lot more funding from the high end of the scale than SSH projects. Even if we control for the 6 STEM projects listed outside RANNÍS and the 7th Framework where no information existed on SSH projects, 83% (25 of 30) of projects with external funding over €50.000 were STEM related. Some of the STEM related projects were related to climate change and thus this impending global disaster might explain the heavy funding into this topic. However, the discrepancy of external funding can also easily be read as an expression of indifference towards the importance of the social sciences, and in the cases we have seen here, indifference towards the gender dimension in research.

Another obvious difference was the amount of attention devoted to gender issues in research and curricula. SSH fields devoted more attention to gender than STEM fields.

This, however, comes as no surprise. In fact, the two units (or just SSH and STEM fields in general) are so different in this regard that it is useless to evaluate them by the same standards. This is why we suggested in the introduction to differentiate between when gender is *not featured* and when gender is *excluded*. It then quickly became clear that in STEM fields gender was mostly non-featured simply because questions of gender have little bearing on whether 2+2=4. This, however, is from the point of view of social scientists who, due to lack of education, fail to see how gender integrates into, say, soil transformations in European catchments.

This highlights the importance of gender initiatives coming from within STEM itself. As social scientists there are limits to what we can offer STEM fields in terms of integrating gender. We need people with the technical capabilities to come up with creative solutions in cases when a gender theorist within the social sciences fails to see the connections.

There is also a point to be made here about the perpetual disconnection between SSH and STEM. Just because gender is not easily integrated into STEM curricula, it does not mean that a gendered awareness cannot be part of a course plan. As we have seen in the SSH examples above, gender does not only feature in curricula as an academic topic but also between the lines in the way a teacher presents a course. There is no reason why a math teacher should not integrate a critical gendered awareness into his or her teaching plan in a way as to encourage equal gender participation in a field of study that has been traditionally male dominated, and there is no reason why a natural science institute should not offer or make obligatory a seminar on the gender dynamics in STEM fields for first-year students.

Thus, compared to STEM, SSH received a lot less funding and was much more likely to include gender in curricula. However, in the case of this particular SSH unit, gender was also heavily excluded in curricula, meaning that a gender dimension had been severed from topics where it clearly belonged. Perhaps this should not come as a surprise given that the integration of gender is often seen as a decidedly political move and its appropriate integration as taking away from the scientific objectivity that we are all taught to strive for. We contend, however, that including gender in any curricula where appropriate is not anymore political than excluding it. As with any other political science topic, gender is political. This means that there is no objective or neutral way to handle the topic. Simply not talking about it is a political stance in and of itself.

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#### **APPENDIX**

# 1.1 Projects funded by RANNÍS

Information available via:

http://rannis.rhi.hi.is/AllocatedFunds/all.php?columns=ar&g=2013&Submit=Leita]

NB: The first name below the title of a project indicates the project leader/the first name on a given application for funding. Names in parenthesis indicate team members/co-applicants. In cases when only the main applicant is mentioned it is not necessarily an indication of a solo project.

#### **STEM**

1. Integrating migratory bird conservation into land-management strategies in lowland Iceland

Tómas Grétar Gunnarsson (Jennifer A. Gill, William J. Sutherland, José Alves)

2. Abrupt transitions to a cold North Atlantic in the late Holocene: Testing the roles of ocean, atmosphere and sea ice Áslaug Geirsdóttir (Gifford H. Miller)

- 3. Tæki til að mæla niturnám (No English title, no project description availble) Ólafur S. Andrésson (Áslaug Helgadóttir, Viggó Þór Marteinsson, Jón S. Ólafsson, Ingibjörg Svala Jónsdóttir)
- 4. Landscape genetics and genomics of Peltigera membranacea: Neutral and adaptive variation in natural populations

  Silke Werth
- 5. Gamma-Ray Bursts: Blasts from the Past Páll Jacobsson (Gunnlaugur Björnsson , Jens Hjorth , Johan Fynbo , Nial Tanvir , Paul M. Vreeswijk)
- 6. Syntheses of methoxylated ether lipids and n-3 PUFA Guðmundur G. Haraldsson
- 7. HPC Exchange

Ebba Þóra Hvannberg

#### SSH

8. Sjálfsmynd í kreppu: Skörun kyns og kynþáttahyggju/Iceland Identity in Crisis: The Intersection of Gender and Racialization

Kristín Loftsdóttir (Helga Þórey Björnsdóttir, Andrea Smith, Brigitte Hipfl)

# 1.2 Projects funded by the 7<sup>th</sup> Framework Programme

Information available via:

http://www.hi.is/sites/default/files/admin/meginmal/skjol/Yfirlit%20verkefna%2022.9.2014.pdf]

#### **STEM**

- 9. Rethinking Globalisation in the light of Contraction and CONVERGEnce *Kristin Vala Ragnarsdottir, Brynhildur Davidsdottir, Sigrun Maria Kristinsdottir*
- 10. Soil Transformations in European Catchments *Kristín Vala Ragnarsdóttir*
- 11. Systems biology of Pseudomonas aeruginosa in biofilms *Ines Thiele*
- 12. Critical Incident management training System using an Interactive Simulation Environment

Ebba Þóra Hvannberg

- 13. Spinrelated phenomena in mesoscopic transport *Ivan Shelykh*
- 14. Fire risks assessment and increase of passenger survivability
  Björn Karlsson (Jean-Michel Most, Wolfgang Koch, Stephane Pugliese, Johannes Willem
  Luinge, Richard Graham Greene, Edwin Galea, Michael Delichatsios, Alexis Coppalle,
  Thrassos Panidis, Jose Luis Torero Cullen, René Alderliesten)
- 15. Systems biology of Pseudomonas aeruginosa in biofilms *Ines Thiele*
- 16. Polarization Phenomena in Quantum Microcavities *Ivan Shelykh*
- 17. Creating the technology for safe, long-term carbon storage in the subsurface *Sigurður R. Gíslason*
- 18. Numerical, Experimental and stochastic Modelling of volcanic processes and Hazard: an Initial Training Network for the next generation of European volcanologists Freysteinn Sigmundsson
- 19. Harmonised Environmental Sustainability in the European food and drink chain Guðrún Ólafsdóttir
- 20. Polaritonic TeraHertz Devices *Ivan Shelykh*
- 21. A European volcanological supersite in Iceland: a monitoring system and network for the future

  Freysteinn Sigmundsson

- 22. Enhancing risk management partnerships for catastrophic natural disasters in Europe Guðmundur Freyr Úlfarsson
- 23. Protecting the health of Europeans by improving methods for the detection of pathogens in drinking water and water used in food preparation *María J. Gunnarsdóttir*
- 24. Geologic Carbon Storage Sigurður R. Gíslason
- 25. Enabling Intelligent GMES Services for Carbon and Water Balance Modeling of Northern Forest Ecosystems

Jón Atli Benediktsson

26. Novel Type of Terahertz Devices *Ivan Shelykh* 

#### SSH

27. DREAM: Disability Rights Expanding Accessible Markets *Rannveig Traustadóttir* 

- 28. Understanding parents' perspective on childhood disability: Strengthening expertise through qualitative validation of an explanatory model Hanna Björg Sigurjónsdóttir (Stefán Hardonk)
- 29. SOCIOEC: Socio economic effects of management measures of the future CFP *Sveinn Agnarsson*

# SSH/STEM COLLABORATION

30. ECOFISHMAN

Sveinn Agnarsson (Kristofer Gunnlaugsson, Anna Karlsdóttir)

# 1.3 Projects Funded from Other Sources (STEM only)

NOTE: Information on team structure not available

- 31. NORDSTAR: Nordic Strategic Adaption Research
- 32. NORDICCS: The Nordic CCS Competence Centre
- 33. OSRNordic: Optimal Spinning Reserve of Power Systems Considering Forecasting Error of Load and Wind Power Generation under Market Environment

34. Icewind: Improved forecasting of wind, waves and icing

35. NORDRESS: Societal Security

36. Aquavalens: Protecting the health of Europeans by improving methods for the detection of pathogens in drinking water and water used in food preparation

# 1.4 Gender Related Course at the Department of Political Science

1. Introduction to Gender Studies Gyða Margrét Pétursdóttir 6 ECTS

2. Gender Studies for Practical Purposes *Porgerður Einarsdóttir 10 ECTS* 

3. Theories in Gender Studies

Gyða Margrét Péttursdóttir, Eyja Margrét Brynjarsdóttir, Jón Yngvi Jóhannsson 10 ECTS

4. Theories in International Relations
Jón Gunnar Ólafsson 6 ECTS

5. The power potential of small states in the European Union *Tómas Joensen 8 ECTS* 

6. Masters thesis: Research plans and design Gyða Margrét, Erla Hlín Hjálmarsdóttir 6 ECTS

7. Security and International Relations Page Wilson 6 ECTS

8. The Tools of Government Sigurbjörg Sigurgeirsdóttir 6 ECTS

9. The Role and Policymaking of International Institutions Sjöfn Vilhelmsdóttir 6 ECTS

10. Mediation Skills Silja Bára Ómarsdóttir 6 ECTS

11. European Integration

Maximillian Conrad 6 ECTS

12. European Security Institutions and Small States *Alyson Bailes 6 ECTS* 

# 1.5 Non-Gender Related Course at the Department of Political Science

- 13. Iceland's Foreign Affairs: The Position of Iceland in the International System Birgir Hermannsson 6 ECTS
- 14. Europeanization of Small States in Europe Magnús Árni Magnússon, Alyson Bailes 6 ECTS
- 15. International Cooperation and Icelandic Position in the International System Birgir Hermannsson 6 ECTS
- 16. Introduction to European Integration: Institutions and Decisions Making in the European Union

  Magnús Árni Magnússon 6 ECTS
- 17. Non-State Actors and Non-Military Security *Alyson Bailes 6 ECTS*
- 18. Microeconomics, Market Failure and the Role of Government Ágúst Ólafur Ágústsson 6 ECTS
- 19. Public Human Resource Management Berglind Bára Sigurjónsdóttir, Gylfi Dalmann Aðalsteinsson, Svala Guðmundsdóttir 6 ECTS
- 20. Public Administration

  Gestur Páll Reynisson, Hafsteinn Þór Hauksson 6 ECTS
- 21. Leadership in Public Organizations Margrét S. Björnsdóttir 6 ECTS
- 22. Policy Change, Innovation and Networks in Public Administration: Leading Theories *Erla Hlín Hjálmarsdóttir, Sigurbjörg Sigurgeirsdóttir 6 ECTS*
- 23. Small States in Europe: Vulnerability, Status and Influence Jakob Þór Kristjánsson 6 ECTS
- 24. Democracy, Sovereignty and the Nation State in the 21. Century Birgir Hermannsson 6 ECTS
- 25. European Integration and the Future of Democracy *Maximillian Conrad 6 ECTS*
- 26. Strategic Planning for Public Organizations
  Héðinn Unnsteinsson, Pétur Berg Matthíasson 6 ECTS

# 27. Public Management

Erla Hlín Hjálmarsdóttir, Arndís Ósk Jónsdóttir 6 ECTS

#### 28. Local Governance

Gunnar Einarsson, Trausti Fannar Vallsson 6 ECTS

#### 29. Practical Statistics

Thamar Melanie Heijstra 6 ECTS

# 1.6 (Non-Gender Related) Courses in the Department of Physical Sciences

Elementary Particle Physics 1 No teacher registered 6 ECTS

Applied Mass Spectrometry No teacher registered 2 ECTS

Current Topics in Chemistry and Biochemistry No teacher registered 1 ECTS

Literature Study for the Master's Degree in Chemistry No teacher registered 10 ECTS

Molecular spectroscopy and reaction dynamics Ágúst Kvaran 8 ECTS

Current Topics in Chemistry and Biochemistry No teacher registered 1 ECTS

Literature Study for the Master's Degree in Biochemistry No teacher registered 10 ECTS

Structure and Function of Proteins

Magnús Már Kristjánsson, Arnþór Ævarsson 6 ECTS

# **Enzyme Chemistry**

Bjarni Ásgeirsson, Magnús Már Kristjánsson, Haraldur Halldórsson, Ólafur Þór Magnússon, Óttar Rolfsson 6 ECTS

Random Effects Models Birgir Hrafnkelsson 8 ECTS

Computing and Calculus for Applied Statistics Gunnar Stefánsson 8 ECTS

Algebra II

Jón Kristinn Arason 10 ECTS

Measure and Integration Theory Reynir Axelsson 8 ECTS

Stochastic Processes

Hermann Þórisson Professor, Guðmundur Einarsson, Ólafur Birgir Davíðsson 10 ECTS

Mathematics in Finance Freyr Hermansson 6 ECTS

Introduction to Logic
No teacher registered 8 ECTS

Calculus on manifolds Jón Ingólfur Magnússon 10 ECTS

Statistical physics I No teacher registered 10 ECTS

Quantum Mechanics 2 Ivan Shelykh 10 ECTS

Computational Physics F Viðar Guðmundsson 10 ECTS

Computational Chemistry F Hannes Jónsson Professor, Anna Louise Garden 10 ECTS

Applied Biochemistry F Hörður Filippusson 10 ECTS

Research in molecular biology and biochemistry

Guðmundur H Guðmundsson, Snæbjörn Pálsson, Valerie Helene Maier 2 ECTS

Functional Analysis
Ragnar Sigurðsson 10 ECTS

Theoretical Statistic
Gunnar Stefánsson 10 ECTS

Numerical Linear Algebra Ragnar Sigurðsson 10 ECTS

Graph Theory
Reynir Axelsson 6 ECTS

Differential Equations and Dynamical Systems Robert Jonathan Magnus 8 ECTS

# 1.7 Course Syllabus for Applied Biochemistry at the Department of Physical Sciences

#### APPLIED BIOCHEMISTRY

6 ECTS units 40 lectures plus 12 hours of student lectures\*; visits to biotech. companies

Introduction. Protein biotechnology What is biotechnology? The different spheres of biotech (red, green etc.). History of biotech. Products of biotech.

Therapeutic proteins Blood proteins (albumin, haemoglobin, coagulation factors, immunoglobulins etc.). Monoclonal antibodies. Therapeutic uses of antibodies. Hormones (insulin, growth hormone, gonadotropins). Growth factors. Examples of biotech drugs and their action (Muromonab, Infliximab, Trastuzumab etc.)

Enzyme technology 1: Enzymes in industrial processes The enzyme market. Industrial enzymes (carbohydrases, proteases etc.). Enzymes in food production. Enzymes in chemical synthesis. Thermophilic enzymes.

Surface biotechnology: Supports. Chemical coupling methods. Immobilization of proteins and ligands.

Affinity techniques: Molecular recognition. Affinity chromatography. Ligand choice. Dye ligands and ligand synthesis, incl. combinatorial synthesis.

Enzyme technology 2: Immobilized and modified enzymes: History of immobilization. Different ways of immobilization. Kinetic behaviour of immobilized enzymes. Diffusion and the microenvironment. Reactor types. Industrial uses.

Biosensors: Early biosensors. Different categories of biosensors (amperometric, potentiometric, thermistors, transistors etc.), redox mediators, blood glucose meter. Optical sensors, surface plasmon resonance.

Micro and nano: Microplates, microarrays, nanotechniques Microplate technology. Nuceic acid microarrays, preparation and use. Protein microarrays. Nanoparticles, therapeutic use and targeting.

Aspects of biochemical analysis. Automated analysis: Overview of analytical biochemistry. Enzymatic analysis. Immunochemical analysis. Automation in analysis

(continuous flow, FIA, centrifugal analyzers, robots)

Industrial processing and scale up of purification: Challenges in biochemical processing. The four stages of downstream processing (clarification, isolation, purification, polishing). Main unit operations in processing. Scale- up of selected operations (centrifugation, filtration, homogenization, precipitation, chromatography etc.). Two examples of complete production processes (recombinant insulin production in E. coli; monoclonal antibody production).

GMP in bioprocessing: A guest lecturer from a biotech company gives an overview of good manufacturing practice in industry.

\*Student lectures: Each student gives three lectures based on a selected paper relevant to the subjects being discussed in the course.

#### **5 SWITZERLAND**

#### **5.1 INTRODUCTION**

# **5.1.1** Description of the teaching and research activities in the SSH & STEM Faculties

We choose to investigate two faculties of the University of Lausanne (UNIL) for the GARCIA project; namely our STEM department – the Faculty of biology and medicine (Faculté de biologie et médecine, hereafter FBM) – as well as the SSH department – the Faculty of social and political sciences (Faculté des sciences sociales et politiques, hereafter SSP). These faculties cover teaching and research activities, which enabled us to study their teaching curricula and the thematic content of their research projects.

The FBM is divided into two sections that collaborate for teaching and research: the Section of Basic sciences (Section des sciences fondamentales - SSF) and the Section of Clinical sciences (Section des sciences cliniques - SSC). The SSF is fully integrated into the UNIL organisational structure, whilst the SSC operates in collaboration with the Vaud canton University teaching hospital (Centre Hospitalier Universitaire Vaudois - CHUV). In our case study, we decided to focus on the Section of Basic sciences, because research and careers in SSC mainly focus on medicine (researchers defend MD (medical doctor) and not PhD thesis) and clinical (more applied) aspects of research. Moreover, the CHUV and part of the SSC have very specific administrative structures (Directors' board, HR office, etc.).

The SSF is divided into 10 departments:

- Ecology and Evolution
- Fundamental Microbiology
- Plant Molecular Biology
- Physiology
- Fundamental Neurosciences
- Pharmacology and Toxicology
- Biochemistry
- Genomics
- Medical Genetics
- Oncology.

As far as our SSH department is concerned, the SSP Faculty is divided into 4 institutes (the equivalent of the Departments in the STEM Faculty):

- Institute of Political, Historical and International Studies (IEPHI)
- Institute of Social Sciences (ISS)
- Institute of Psychology (IP)
- Institute of Sports Studies (ISSUL), which is an interfaculty structure belonging both to SSP (for activities linked to sociology, geography, history of sport, etc.) and FBM

(for activities linked to physiology, biomechanics, physical activity, motor control, etc.).

In addition to this, the SSP faculty hosts a National Centre of Competence in Research (NCCR), entitled "Overcoming vulnerability: life course perspectives" (LIVES). In the words of the Swiss national science foundation (SNSF): "NCCRs aim to strengthen research in areas of strategic importance for the future of Swiss science, business and society (...) NCCRs are backed by one or more home institution. The budget for each series of an NCCR is determined by [the Swiss] parliament. In addition to federal funds, NCCRs receive funding from higher education institutions and from third parties" (for more information, see below part 3.1.). NCCRs are important research programmes financed for a maximum of 12 years (3 x 4 years, with intermediate evaluation procedures).

### 5.1.2 Availability, transparency and accessibility of data

Contrary to expectations, it proved much harder to access systematic data on research projects than on teaching activities.

# 5.1.2.1 Data on research projects

The absence of a unified database on research activities and projects at central or at faculty level had already been identified by different commissions and working groups as a problem for mapping and monitoring research at the UNIL. It is indeed very difficult to identify who is working on what topics, which poses problems for the dissemination of information about on going research activities, particularly to external parties, but also internally.

In order to carry out this task, we had to "invent" a cost-effective method for collecting information on research projects. We also had to make compromises in order to obtain data we knew would be interesting for our project, although probably incomplete. As most research projects have some kind of funding attached, we decided to "follow the money" within the two Faculties. This meant that we could not identify projects that had no direct financial impact on the Faculty budgets (e.g. those carried out in collaboration with other institutions, which were responsible for financial management). Identifying projects that were "on-going" in 2013 proved to be rather difficult because of the variable starting dates (some projects may have been ending in January 2013, whereas others covered the full 12 months). However, due to the fact both Faculties are quite large and because research activities at the Unil are almost entirely dependent on external funding, there was no shortage of projects to study. The data presented below includes any funding that had started in 2013, irrespective of the total duration of the project. As we were requesting information for several GARCIA tasks at the same time, we asked for details about the sex and academic status of the project leader (i.e. the

<sup>&</sup>lt;sup>1</sup> <u>http://www.snf.ch/en/funding/programmes/national-centres-of-competence-in-research-nccr/Pages/default.aspx#Details</u> [retrieved 27.04.2015].

person who can authorise any expenditure from the budget<sup>2</sup>), and a breakdown by type of funding institution (European Union, national funding bodies, etc.). We asked for more detailed information on the 20 biggest projects in each Faculty, in order to analyse the inclusion of gender issues and to perform a gender budgeting analysis.

#### Research Activities in the STEM Department

For the FBM Faculty, we wrote to the Office of the Vice-Dean in charge of research. After a reminder, he answered two weeks later, saying: « Having consulted our archives and talked to my colleagues, the only information I have been able to get (see enclosed) is very general and only gives the total amount of research funding the section received in 2013, with no breakdown by the title of the project of the status of the project leader. Unfortunately, we just don't seem to collect the kind of information you have requested » (E-mail dated 25/03/2015). Table 1 indicates the total amount of research money registered in the Faculty budget for in 2013, with the funding institutions divided into 4 categories: The Swiss National Science Foundation (SNSF); the Commission for Technology and Innovation of the Swiss Federal Administration (CTI); the European Union; and "other 3<sup>rd</sup> party funding".

Table 1: Total amount of external research funds allocated to the FMB in 2013, by section (SSF & SSC) and type of funding institution

Funding institution	2013	
	SSF	SSC
SNSF	20'459'120	21'895'158
СТІ	739'487	531'301
UE	5'677'423	2'733'231
Other 3 <sup>rd</sup> party	19'957'594	35'111'360
Total	46'833'624	60'271'050

NB. All figures in Swiss Francs

Table 1 shows that the Section of Basic sciences received slightly less external research funding than the Section of Clinical sciences, despite attracting more European grants. The main difference lies in the amount of 3<sup>rd</sup> party funding, which is mostly related to partnerships with industry (e.g. pharmaceutical companies) and special mandates.

<sup>&</sup>lt;sup>2</sup> In almost all funding organisations in Switzerland, the projects have to be presented by a person holding a permanent position inside a university, that means by more or less 20% of the persons employed by universities.

#### **Research Activities in the SSH Department**

In the SSH department, we were able to contact the finance officer directly and we were delighted to hear that she had an Excel file listing all the on-going research projects in the Faculty. However, our joy was short-lived, since she was not able to give us access to this file without a formal authorisation from the Dean. We requested this authorisation via the Vice Dean in charge of research, a member of our Social Science Institute. For various reasons (sick leave, oversight, holidays, work overload, etc.), this request was not actually discussed at the weekly Faculty management meeting until several weeks later (end of March 2015). In the meantime, we were advised to try and obtain the data directly through the UNIL's central administrative services. We wrote to different central administrative offices, including financial services, that eventually agreed to extract a data base for each of the two Faculties. However, rather than sending these documents directly to us, the files were sent via the Faculty administrative heads, who were asked to validate the documents before deciding if we could receive them. We were given access to the file for the SSH department at the very end of April. We are still waiting to hear from the STEM department...

Due to these repeated delays and institutional doubts about the "confidential" nature of this information, we decided to consult Swiss National Science Foundation database (<a href="http://p3.snf.ch/">http://p3.snf.ch/</a>), which proved to be both informative and user-friendly. By this means, we were able to identify research projects funded by the SNSF to members of the FBM or SSP Faculties. This totally open and public source enabled us to access quite detailed information about approximately 40% of the externally funded research in the Basic science section of the STEM department and more than 90% of that funded in the SSH department (see below).

# 5.1.2.2 Data on teaching activities

We had not expected any difficulties in getting access to data on gender in teaching activities, because the Centre for Gender Studies of the UNIL (CEG-LIEGE) has been carrying out an annual inventory of such courses for many years<sup>4</sup>. Each year, an E-mail is sent to all the academic staff in the UNIL, asking them to provide information about any teaching activities "on gender" they are involved in. The definition of what "a course on gender" means is thus left up to the individual respondents, who can classify their courses under two alternative headings: 1) centred on gender issues and 2) with a gender dimension.

In the 2013-2014 version of the CEG-LIEGE inventory, only 1 MA course<sup>5</sup> with a gender dimension is listed from the STEM department, whereas 11 MA courses with a gender dimension are listed for the SSH department.<sup>6</sup> This database thus provided a good

 $<sup>^{\</sup>rm 3}$  For details about the SNSF research-funding activities studied here, see Appendix 1.

<sup>&</sup>lt;sup>4</sup> http://www.unil.ch/liege/home/menuinst/enseignement/archives.html [retrieved 27.04.2015].

<sup>&</sup>lt;sup>5</sup> At the Unil, a « course » may either correspond to a series of lectures or to a series of tutorials. In both cases, 1 course may either represent 56 hours of teaching (6 European credits) or 28 hours teaching (3 ECTS)

<sup>&</sup>lt;sup>6</sup> http://www.unil.ch/liege/home/menuinst/enseignement/archives/enseignements-2013-1/master.html [retrieved 27.04.2015].

starting point, but was not totally up-to-date or exhaustive. We thus completed the information through desk-based analysis of each faculty's courses directories. These directories were not always very detailed, with some entries consisting of little more than course titles. Therefore, these findings should be taken with some caution, as descriptions may not be systematically updated each year. In the course titles and descriptions we searched for the following words: femme(s) (woman/women); sexe (sex) and genre (gender) to identify the teaching activities related to gender issues.

In the STEM department, the organisation of teaching (ECTS credits, duration of the course, name of the lecturer, etc.) and course descriptions were complicated to access on-line because teaching programmes are divided into modules, sub-sections, and courses of different and more or less uniformed format. Apparently no single hard copy is available for students, probably because they do not have a wide choice of courses (contrary to those in the SSH department). For the whole Faculty, we could only identify 2 courses including gender or gender-related issues in their title and/or description and neither of these was from the Section of Basic Sciences (see below in section 2.2, and Appendix D). The Administrative associate of the Vice-Dean in charge of teaching activities (Adjointe au vice-décanat de l'enseignement) later confirmed that these were the only courses related to gender issues in the whole Faculty, but when we contacted a female colleague in FBM whose teaching relates to gender issues she indicated a further 3 courses she was personally involved in (including under-graduate courses).

For SSP, we deepened our investigation by analysing the Course catalogues (*plan d'études*) for the Master programs delivered by SSP that is available online<sup>7</sup> and in hard copy format. We identified a total of 26 courses including gender or gender-related issues in their title and/or description. Course organisation (ECTS credits, duration of the course, name of the lecturer, etc.) and description were easily accessible in this catalogue (see below in section 3.2, and Appendix E).

# 5.2 MAPPING GENDER DIMENSIONS IN EXISTING RESEARCH AND CURRICULA IN THE STEM DEPARTMENT

# **5.2.1** Mapping the gender dimension in existing research in the STEM department

As seen earlier, the Basic sciences section (SSF) of the STEM department obtained external research funding of 46'833'624 CHF in 2013. As we could not obtain any other information from the STEM department and from the central administrative services of the UNIL, we had to have a more detailed look at the projects on the SNSF's website. We identified 22 projects starting in 2013 (see Appendix B), corresponding to a total of CHF

<sup>&</sup>lt;sup>7</sup> http://www.unil.ch/ssp/fr/home/menuinst/enseignement/cours--horaires.html [retrieved 27.04.2015]. The online catalogue is for the 2014-2015 academic year, but we asked for access to the former catalogue for 2013-2014.

18'238'407.<sup>8</sup> It would have been interesting to have more information on the other third party funding, which appears to be linked to partnerships with biotechnical & pharmaceutical companies.

Of these projects (see Appendix B), 19 come under the SNSF category of "project funding" (17 under the disciplinary and 2 under the interdisciplinary headings); 2 are Agora projects for research dissemination and 1 is a Sinergia project.

Women head six of the SNSF-funded projects, whilst men direct 16 of them (for a total amount of CHF 3'065'680 on the one hand and CHF 15'172'727 on the other).

Nine projects are directed by a full professor (1 woman and 7 men, one of them running 2 projects), 8 by an associate professor (4 women and 4 men), 1 by a male assistant tenure-track professor, and 4 by a senior lecturer (2 women and 2 men).

Only one of these projects has the word "sex" in the title (none of them mention either "women" or "gender"): "The evolution of sex chromosomes: a perspective from amphibians". However, the abstract suggests that this is not directly related to gender issues: "Non-recombining sex chromosomes are expected to accumulate deleterious mutations under the combined effects of Muller's ratchet and Hill-Robertson effects, and for this reason to progressively degenerate. Such decay has been largely documented in birds and mammals, most of which have strongly heteromorphic sex chromosomes with degenerated W and Y, respectively. In sharp contrast, however, cold-blooded vertebrates rarely show such a differentiation, even when sex determination is purely genetic. The present project aims at investigating the evolutionary dynamics of non-degenerating sex chromosomes, using amphibians as model organisms."

# 5.2.2 Mapping the gender dimension in existing curricula in the STEM department

At MA level, the STEM Faculty offers 3 different training programmes in 3 different Schools:

- 1. The School of Biology (linked to SSF)
- 2. The School of Medicine (linked to SSC)
- The School of Nursing Studies (Institut de formation et recherche en soins). This
  institute belongs administratively to the CHUV and has partners outside the UNIL
  (University of Applied Sciences and Arts Western Switzerland, Geneva canton
  University teaching hospital, University of Geneva, La Source Foundation, Swiss
  Society of Nurses).

As we decided to focus our interest on the Basic Science Section of the FBM, we started by investigating the first of these schools:

"The School of Biology offers three Master of Science degrees, the contents of which focus on the main strengths in biological research at the University of Lausanne. All of these Master degree courses are taught entirely in English, they

<sup>&</sup>lt;sup>8</sup> A figure that is actually quite close to the sum of 20'459'120 mentioned in the data provided by the Faculty.

last one and a half years, and amount to 90 ECTS credits. The degrees issued at the end of these Master programmes are:

- Master of Science in Behaviour, Evolution and Conservation (MSc BEC)
- Master of Science in Medical Biology (MSc BM)
- Master of Science in Molecular Life Sciences (MSc MLS)
  - distinction in Bioinformatics
  - distinction in Microbiology
  - distinction in Integrative Biology

These Master courses are divided into three semesters and consist partly of core courses, mostly in the first semester, as well as more specialized optional courses largely during the second semester.

Of particular importance throughout the Master degree course is individual laboratory research, with a preliminary ('first step') research project in the first semester and a Master dissertation to be submitted in the second and third semesters. Within the framework of their research, students are associated with different labs, performing state-of-the-art research and thus take part in advancing knowledge in their chosen field of study."

In the curricula of these Masters, we could not identify any course related to gender or to women's issues. Therefore, we decided to have a look at the two other Schools delivering Masters in the STEM department and we found two courses or modules that mentioned gender or gender-related issues in their title and/or description (see Appendix D). No information on the FBM website was found concerning the single course listed in the annual inventory of the CEG-LIEGE, which has probably ceased to exist. Surprisingly, the Master in Medicine appears to be the only study programme to include any courses with a gender dimension. We found no reference to gender in the Master in Nursing studies, although some course titles suggested that this could be the case, as in a course entitled "Systemic approaches to the family" (Approche systémique de la famille)". No description of these courses was available on-line and since this Master is not in our target department, we decided not to investigate any further.

In the School for Medicine, teaching is organised around domains of study (e.g. obstetrics) that are part of modules (lasting from 3 to 16 weeks). Courses on gender issues are included within these domains, with varying size and length. In total, we identified 2 courses, 1 taught by a woman and 1 by a man (see Appendix D). Given that ECTS are counted per modules, we could not determine how much each of the identified classes was worth. However, an estimation of their length has been calculated, according to their importance within their module.

The only course for which we could find a description for was "Medicine and gender". According to our estimation it lasts about 1/3 day and is taught by a woman: "The objectives are the following: to know the difference between sex and gender; to be able to cite a clinical example in which gender plays a key role; to be conscious of differences and similarities between men and women during a medical consultation; to develop a gender-conscious reading of scientific production and research; to acknowledge one's proper stereotypes and preconceptions towards gender."

<sup>&</sup>lt;sup>9</sup> http://www.unil.ch/ecoledebiologie/en/home/menuinst/masters.html [retrieved April 28, 2015]

We found information and identified 3 more courses on gender issues in the MICS programme, which is an under-graduate course (<a href="http://www.chuv.ch/dumsc/dumsc-formation-pregradue-mics.htm">http://www.chuv.ch/dumsc/dumsc-formation-pregradue-mics.htm</a>). But due to the lack of teaching on gender in this faculty, we decided to present a brief summary and to integrate it into our study, even if we did not systematically investigate the BA programmes in the SSH Faculty. According to the course description:

"This course focuses on non biomedical determinants of health and sickness (lifestyles, psychosocial and cultural factors, the environment, etc.), on the one hand, and on contextual influences of medical practice (see Figure 1). These determinants are organized around three poles:

- The individual: the patient and individual-level determinants of health (behaviour, life-style, psychosocial circumstances), as well as the doctor-patient relationship (clinical ethics, doctor-patient communication, medical know-how);
- Community: population and community health (epidemiology), prevention strategies, community resources and health-care networks;
- Society: economic, political and legal contexts, along with the cultural, historical and anthropological aspects of medical practice, health systems and health issues."

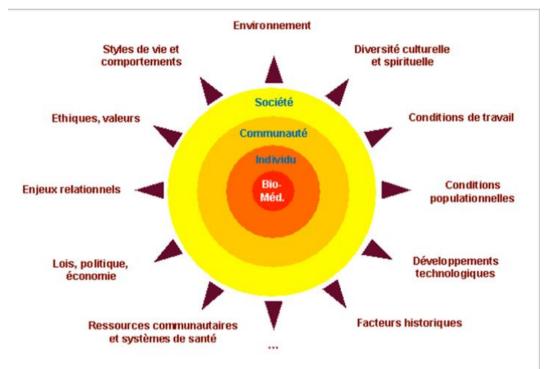


Fig. 1: Determinants of health, illness and medical practice.

# 5.3 MAPPING THE GENDER DIMENSION IN EXISTING RESEARCH AND CURRICULA IN THE SSH DEPARTMENT

### 5.3.1 Mapping the gender dimension in existing research in the SSH Faculty

# 3.1.1 Organisation of research in the SSH department with a particular focus on gender issues

As mentioned previously, our SSH department (SSP) is divided into 4 institutes: IEPHI, ISS, IP, ISSUL, which each offer an MA course (see below in "curricula"). In addition, research activities are carried out within different research centres, currently organized as follows:

- Center for Gender Studies (CEG-LIEGE)
- Research Centre for Health Psychology (CERPSA)
- Research Centre for Political Action (CRAPUL)
- Laboratory for Developmental, Counselling & Intervention Psychology (LABDCI)
- Research Group of the Institute of Sports Studies of the University of Lausanne (GRISSUL)
- Research Centre for the Science of Education (LABEDUC)
- Laboratory of Sociology (LABSO)
- Laboratory of Cultural and Social Anthropology (LACS)
- Laboratory for Analysis of Governance and Public Policy in Europe (LAGAPE)
- Laboratory for Analysis of Social Policies, Health and Development (LAPSSAD)
- Research Laboratory of Psychology of Intra- and Inter-Subjective Dynamics (LARPSYDIS)
- Laboratory of Experimental Research in Behaviour (LERB)
- Laboratory of Social Psychology (UNILAPS)
- Research Observatory for Regional Politics (OVPR)
- Life Course and Social Inequality Research Centre (LINES)
- Laboratory of Digital Humanities and Cultures of the University of Lausanne (LADHUL)
- Walras Pareto Centre (CWP)
- Observatory Science, Politics and Society (OSPS)
- Centre of International History and Political Studies of Globalization (CRHIM)

These research centres are currently being reorganised and a new research framework is due to be adopted by the SSP Faculty in 2016. Beside these subdivisions, there are also some interfaculty structures, including one in Gender Studies.

The Gender Studies Centre (CEG-LIEGE) was set up following feminist mobilisations at the UNIL at the end of the 1990s. After the 4<sup>th</sup> Women's World Conference in Beijing in 1995, the Commission for women's issues of the Rectorate (*Commission féminine du Rectorat*) asked for the creation of an interfaculty department for teaching and research on gender issues. Thanks to the continued mobilisation of feminist researchers, lecturers and students, the LIEGE (Interuniversity Laboratory in Gender Studies) was created in 2001 in the SSP Faculty, mostly with external funding obtained through the 1<sup>st</sup> Federal Gender Equality in Academia programme. In 2000, the first professorship in Gender Studies at the UNIL was created in the SSP Faculty. The LIEGE became a fully-fledged UNIL research centre (i.e. structurally integrated and fully financed by the UNIL) in 2008,

after 8 years of activities, and changed its name to CEG-LIEGE (Centre for Gender Studies – LIEGE). It shifted from an activist network of approximately 450 members (including many feminists from outside academia), to a small-scale specialist research centre. Today, the CEG has just 5 "full" members: 1 female Associate professor, 1 female permanent Senior lecturer, 3 postdoc researchers, 1 female PhD Student, 1 female student assistant.<sup>10</sup>

Along with the Centre for Gender Studies (CEG-LIEGE), which is located in the SSP Faculty, there is also an Interfaculty Gender Studies Platform (*Plateforme en Etudes Genre* whose acronym is PlaGe, which means, "beach" in French!) which has progressively taken over the academic networking activities of the former LIEGE (the non academic actors of the local feminist civil society largely vanished in the process). "The PlaGe is an interfaculty and interdisciplinary network whose principal goal is to understand gender as a global reality [...]. The creation of this platform relays on the important work carried out by the CEG-LIEGE in the SSP Faculty and aims to promote Gender Studies in other disciplines and faculties [...] It fosters collaboration between the different individual members in research, organisation of scientific activities (conference, seminars, work in progress), diffusion and integration of Gender Studies into the disciplines and faculties of UNIL [...]" <sup>11</sup>.

The SSP Faculty also hosts the secretariat of the French-speaking part of the Swiss national "Gender Campus", which is an electronic platform for information, communication and networking of gender studies and equal opportunities specialists in Swiss universities (https://www.gendercampus.ch/en).

The head office of NCCR LIVES "Overcoming vulnerability: life course perspectives" which is an important research infrastructure funded by the Swiss National Science Foundation (SNSF) hosted jointly by the Universities of Lausanne and Geneva, is located in the SSP Faculty. The programme seeks to promote research projects of the highest quality with a particular emphasis on interdisciplinary approaches, but also on new, innovative approaches within the disciplines. Therefore, the NCCR LIVES involves close cooperation among researchers in psychology, sociology, social psychology, socioeconomics, economics and demography who are attached to the universities of Lausanne, Geneva, Berne, Fribourg, Zurich, and the University of Applied Sciences of Western Switzerland. It forms a network of collaborations and partnerships among approx. 150 researchers, half of whom are PhD students. Divided into 14 "individual" projects in its first phase (2011-2014) it reduced to 9 projects for its second phase (2015-2018) and from the beginning, one of these projects named "Gender and occupations", directed by Nicky Le Feuvre, has an important focus on gender issues.

According to SNSF guidelines, all NCCRs are obliged to develop a "Gender Equality & Advancement of Women" strategy, addressed at all of their members and associate members. In the 1<sup>st</sup> period of funding for LIVES, this strategy was developed by a Gender Studies specialist, and included a 1-day "gender awareness training" session for senior

10 <a href="http://www.unil.ch/liege/home/menuinst/membres.html">http://www.unil.ch/liege/home/menuinst/membres.html</a> [retrieved May 12, 2015]. For more information on the LIEGE, see Fassa and Kradolfer, 2014.

Free translation from the website: http://www.unil.ch/plage/home/menuinst/presentation/objectifs.html [retrieved on April 30th, 2015].

academics and administrators. In the  $2^{nd}$  phase, these training activities will continue, along with a career follow-up study of the PhDs from the  $1^{st}$  period.

### 5.3.1.2 Research projects

The SSP Faculty gave us a complete list of the 41 funds opened in 2013. Among these, about 15 were directly linked to research projects (see Appendix C), while the others were created to receive funding for other scientific activities (e.g. conference organisation) or internal financial reasons (e.g. overhead management). As we had already identified some projects in the SNSF database, we were able to crosscheck the reliability of each source of information. The only SNSF funded projects that did not appear in the SSP Faculty database were those with a co-applicant from the UNIL, but a main applicant from another university. This was notably the case for a SINERGIA project in partnership between the universities of Geneva and Lausanne, with the former as "leading house", with budget management responsibilities.

In total, the SSH department received CHF 4'685'376 in external research funding in 2013 (see Appendix C). Ten of these projects come under the SNSF category of "disciplinary project funding"; 2 are Sinergia projects (one of them with Geneva as leading house, but a subproject funded in Lausanne); 1 is funded by the European Union; 1 is a subproject financed by the State Secretariat for Education, Research and Innovation (SEFRI - the Swiss equivalent of the Ministry for Education) and the last one is a collaborative project with the *École polytechnique fédérale de Lausanne* (EPFL). Eight of these projects are directed by a full professor (3 women and 5 men), 2 by associate professors (1 woman and 1 man), 3 by tenure track assistant professors (1 woman and 2 men) and 2 by senior lecturers (1 woman and 1 man).

Only five of these projects appear to focus on gender issues or to use sex desaggregated data:

### a. Academic Elites in Switzerland 1910-2000: Between Autonomy and Power

This project aims to understand the evolution of the Swiss academic elites throughout the 20th century, a period during which the modern university became increasingly autonomous, grew in terms of number of students and staff, specialised more and more in research, came under managerial pressures, experienced a (re)-internationalisation and feminization of academic staff. These changes have a) profoundly modified the power resources and the structure within the academic field and b) altered its relations to its environment, notably in the political, administrative or economic fields.

### b. Homosexualities in Switzerland from the end of WWII to the AIDS years

Using varying sources, this project aims to explore the two decades that followed Second World War, for this was the period where homosexual women and men went through a coming-out process in Switzerland. This period will be studied from several angles: cultural and social, political and legal, as well as medical and psychiatric.

## c. The motivational system of career choices: Effects on choice implementation and career success

This project investigates the motivational foundation of adolescent's career choices and how this affects their success in the transition from compulsory school to vocational education and training (VET). We will systematically investigate the effects of gender, nationality, school-type, and parental education in order to account for differences in the observed processes based on those socio-demographic variables.

## d. Changing families in sustainable societies: Policy contexts and diversity over the life course and across generations

The project will explore the growing complexity of family configurations and transitions across and within European societies and examine their implications for children, women and men with respect to inequalities in life chances, intergenerational relations and care arrangements.

## e. The emergence and reconfigurations of a public problem. Violence against women in Switzerland (1970-2012)

The project aims to explore how decisions, actions and legislations have been politically framed and discussed with respect to violence against women from 1970 to 2012.

On the other hand, projects like the one entitled "The struggle for competence in academic selection: Social psychological influences on competence threats" does not appear to address gender issues:

Selection is a pervasive feature of academic life, with a permanent emphasis on testing, ranking and assessing for pupils and students, teachers and researchers, schools and universities. The present project stems from the hypothesis that, although selection is intended to identify the most competent people and may elicit some positive outcomes, it might also have the paradoxical effect of reducing actual competence of its targets. This hypothesis is based on the notion that selection renders people's competences negatively interdependent—the less competent people are selected out—thereby creating a struggle for competence. The importance of this phenomenon is that selection and the consequent struggle for competence may elicit a competence threat—the particularly aversive psychological feeling that self-competence is called into question—which is detrimental to performance, learning and cooperative social interactions. Six subprojects investigate, by conducting a series of experimental and correlational studies, the effects of the struggle for competence on competence threat at four different levels of analysis: ideological, intergroup, interpersonal and intra-individual. Project A will examine the societal roots of competence threat and study how the focus on meritocracy (ideological level) reflected by normative assessment (e.g. grades) can be used to operate a selection between members of privileged and underprivileged social categories (intergroup level). Project B studies how the selection function of educational systems (ideological level) focuses motivation on personal competencethreatening performance goals, which in turn reduce teachers' quality of teaching as well as the performance of members of underprivileged social groups or categories (intergroup level). Project C studies social comparison between competent peers (interpersonal level) in terms of a threat to selfcompetence. Because being competent means being more competent compared to similar peers, a competent person may attempt to select out equally competent peers by hindering their performance as a way to affirming self-competence (intra-individual level). Project D applies this competence threat approach to peer reviewing, the prototype of the selection process in the promotion of science (ideological level). It is argued that peer reviewing is not only aimed at selecting good proposals, but also at showing competence, in particular through derogation of peers (interpersonal level) when their competence may constitute a threat to self-competence. Project E studies how societal norms and values predominantly oriented towards competition and selection (ideological level) may interfere with the implementation and effectiveness of one of the potentially most effective forms of social construction of knowledge, namely cooperative learning (interpersonal level), because of the salience of competence stakes. Project F studies how social comparison within the group is responsible for the competence threat that impairs performance (intra-individual level) of low achievers, but also how low achievers may benefit from a downward social comparison in an intergroup context with members of an outgroup of lower social status (intergroup level), as this new social comparison alleviates the competence threat. The present project studies the processes that lead from competence struggle to competence threat, but also the mechanisms that allow reversing these processes, which can provide insights as to specific and appropriate avenues for interventions and policy making. This team consists of six scholars who have worked for years on several projects that have set the ground for the present project. The Sinergia scheme would now allow moving from incremental to transformative research by making possible to articulate within the same project the four level of analysis necessary to fully understand the origin, mechanisms and consequences of competence threat. An end-goal of the present project will be to develop a multi-level theory of competence threat in the construction of knowledge.

It is interesting to note that 3 of the externally funded SSH research projects are interested in changes to academia and higher education more generally:

- Academic Elites in Switzerland 1910-2000: Between Autonomy and Power;
- The motivational system of career choices: Effects on choice implementation and career success;
- Change structure and structure of change: academic curricula production in Switzerland and Bologna reform.

Thus, the subject of the GARCIA project is very important in our institution.

### 5.3.2 Mapping the gender dimension in existing curricula in the SSP Faculty

The teaching programme of the SSH Faculty is coordinated by dedicated Institute-level teaching commissions (Commission des enseignements), and then at the Faculty level. There are no national curricula for the disciplines taught in the Faculty, with the exception of the MA in psychology that also acts as a certificate of professional practice, the content of which is coordinated at the Swiss federal level. In most cases, members of the Faculty (senior lecturers and/or professors) propose a particular course at BA or MA level, usually on the basis of their specialist knowledge and research area. The teaching commission validates this offer and decides on where to locate the course in the general architecture of the Faculty. If and when the Faculty decision-making bodies identify "gaps" in the courses available to students, it is more common for them to create a permanent position with those areas in the job specification than to ask existing members of the Faculty to modify their existing teaching programme. The number of temporary / fixed term teaching staff is very limited, and they are usually only used to cover the replacement of some of the courses usually offered by a particular faculty member (e.g. on maternity or sabbatical leave). Students have to validate 30 ECTS credits each semester and they are free to elaborate their tailor-made study plans from a very wide range of optional courses offered, both within the SSP Faculty and, occasionally, in other faculties and/or partner institutions. In such a context, there are almost no "obligatory" classes, although the 2015 reforms of the Social science and the Political science MA programmes have moved towards that direction.

### 5.3.2.1 Masters in the SSH department

The SSP faculty offers 4 MA programmes:

- Political Science (MA)
- Social Sciences (MA)
- Psychology (MSc)
- Human Movement and Sports Sciences (MSc) and 4 additional masters delivered jointly with other universities or tertiary education institutions:
- Study of Religions (MA) with the Faculty of Theology and Religious Studies
- Public Management and Policy (MA) with the Swiss Graduate School of Public Administration (IDHEAP) of the Faculty of Law, Criminal Justice and Public Administration
- Public Opinion and Survey Methodology (MA) with the Universities of Neuchâtel and Lucerne
- Sciences and Practices of Education (MA) with the Vaud canton Teacher Education Institution.

As previously said, we have decided to focus on activities fully embedded in the STEM and SSH departments and for this reason, we have only investigated the four masters offered exclusively by the SSH department. The strongest focus on gender issues was found in the MA in Social Sciences, which includes the following specialisms:

- Cultural and Social Anthropology
- Gender Studies
- Life Course Studies
- Social Policy and Development Studies
- Health, Medicine, Science
- Sociology of Communication and Culture

However, the curricula of these options largely overlap with each other, which means that most courses can be taken by students who are preparing different specialisms in the MA in Social sciences, or even by students preparing a completely different MA (i.e. in political science or in psychology). This implies that, with the exception of those preparing the Gender studies specialism, students doing the Social science MA are not obliged to attend any of the gender classes listed below. On the other hand, access to most of those classes is not restricted only to students preparing the Gender studies specialism of the MA in Social sciences.

In the SSP MA Course catalogue, out of the approx. 200 courses offered in 2013-2014, we identified a total of 26 courses that mention gender or gender-related issues in their title and/or description (see Appendix E). In most cases, it was difficult to establish the degree to which courses was centred on gender or gender-related matters. For those already registered in the CEG-LIEGE inventory, we followed the distinction between those with a primary or secondary focus on gender. For the others we first selected what appeared to be relevant titles and then checked (where possible) the full course description (see Appendix F). In Appendix E courses that centrally or directly address gender are listed first. While some clearly refer to a specific discipline (e.g. "Sociology of

gender"), others focus on methodological or epistemological issues. However, most are topic-oriented, which means they either address a given issue 'from a gender perspective' or explore some other subjects in relation to gender (e.g. "Gender, education and work"). These courses address a wide range of themes, such as sexuality, work, family and parenthood, education, science, medicine, sport, career counselling, sexism and racism.

Given that the SSP faculty covers five broad disciplinary fields of study (Political Science, Historical and International Studies; Social Sciences; Psychology; Sports Studies), it is interesting to note that the vast majority of the courses listed here originate from the Institute of Social Sciences, although they may be open to students from other disciplines. The other classes listed are based in the Institutes of psychology or political science.

The vast majority (22 out of 26) of all the gender classes are taught by female lecturers / professors.

### 5.3.2.2 The Gender Studies specialism in the MA in Social Sciences

The Gender studies specialism is composed of 3 parts: a series of so-called "core" courses in the social sciences (30 ECTS), a series of courses that relate to the specialism (30 ECTS) and the MA dissertation (30 ETCS). The core courses allow students to acquire knowledge in methodology as well as in related disciplines, including: social and cultural anthropology, social policy, social psychology and sociology.

The specialist courses are composed of a main module (24 ETCS) and an optional module (6 ECTS).

Table 2: List of eligible courses in the main module from which students have to choose a total of 24 ETCS

Enseignements	Responsable	H. hebd.	Туре	Obl. / opt.	Semestre	Cr. ECTS
Divisions du travail et relations de pouvoir	Nicky Le Feuvre	4	Séminaire	Optionnel	Automne	6.00
Genre et histoire aux 19e-20e siècles (UNIGE) / UNIGE *	Delphine Gardey	2	Cours	Optionnel	Automne	3.00
Genre et orientations scolaires et professionnelles	Lavinia Gianettoni	2	Séminaire	Optionnel	Printemps	3.00
Genre, sciences et médecine : thématiques spécifiques	Cynthia Kraus	4	Séminaire	Optionnel	Automne	6.00
Genre, sexualités et problèmes publics	Marta Roca Escoda	4	Cours	Optionnel	Automne	6.00
Méthodes interprétatives	Véronique Mottier	2	Séminaire	Optionnel	Automne	3.00
Sexisme et racisme: Imbrication des logiques de discrimination	Patricia Roux	4	Séminaire	Optionnel	Printemps	6.00
Socialisation et sport dans une perspective de genre	Eleonore Lepinard	4	Séminaire	Optionnel	Printemps	6.00
Sociologie du travail : les économies symboliques du travail	Marc Perrenoud	2	Séminaire	Optionnel	Printemps	3.00

<sup>\*</sup> UNIGE : enseignement dispensé par l'Université de Genève. L'étudiant doit s'inscrire dans son programme d'études et respecter les modalités des évaluations et les délais d'inscription fixés par cette Université.

Table 3: List of eligible courses in the optional module from which students have to choose 6 ETCS

			1	1		
Enseignements	Responsable	H. hebd.	Туре	Obl. / opt.	Semestre	Cr. ECTS
Egalité entre femmes et hommes : la perspective de genre en droit (UNIGE) / UNIGE *	Karine Lempen	2	Cours	Optionnel	Printemps	3.00
Genre et guerre(s) au 20e siècle (UNIGE) / UNIGE *	Françoise Thebaud	2	Cours	Optionnel	Printemps	3.00
Genre, formation, travail (UNIGE) / UNIGE *	Isabelle Collet	2	Cours	Optionnel	Automne	3.00
Inégalités de genre, développement et théories féministes postcoloniales (IHEID) / UNIGE *	Christine Vershuur	4	Cours	Optionnel	Automne	6.00
Le genre au coeur de l'anthropologie (UNIGE) / UNIGE *	Iulia Hasdeu	2	Cours	Optionnel	Printemps	3.00
Méthodologie en Etudes genre (UNIGE) / UNIGE *	Julien Debonneville	2	Cours	Optionnel	Automne	3.00
Migrations transnationales et rapports sociaux de sexe, de race et de classe (UNIGE) / UNIGE *	Marylène Lieber	2	Cours	Optionnel	Printemps	3.00
Penser depuis les marges I : Postcolonial Studies et genre (UNIGE) / UNIGE *	Lorena Parini	2	Séminaire	Optionnel	Automne	3.00
Penser depuis les marges II : introduction aux Gay & Lesbian Studies (UNIGE) / UNIGE *	Lorena Parini	2	Séminaire	Optionnel	Printemps	3.00
Sociologie du genre (UNIGE) / UNIGE *	Marylène Lieber	2	Cours	Optionnel	Printemps	3.00
Stage de Master en sciences sociales - Automne	VACAT		Stage	Optionnel	Automne	6.00
Stage de Master en sciences sociales - Printemps	VACAT		Stage	Optionnel	Printemps	6.00

<sup>\*</sup> UNIGE : enseignement dispensé par l'Université de Genève. L'étudiant doit s'inscrire dans son programme d'études et respecter les modalités des évaluations et les délais d'inscription fixés par cette Université.

IHEID : enseignement dispensé par l'Institut de Hautes Etudes Internationales et du Développement. L'étudiant doit s'inscrire dans son programme d'études et respecter les modalités des évaluations et les délais d'inscription fixés par cet institut.

Very few students chose the Gender Studies specialism of the Social science MA in Lausanne (only 4 started an MA in this field in 2013-14), notably because the University of Geneva (located just 60 kms away) offers a freestanding MA in Gender Studies. Nevertheless, the gender studies MA classes in Lausanne are also taken by quite a number of students preparing a different MA or a different specialism in the Social science MA, as shown in Table 4.

Table 4: Attendance of MA courses in gender studies by students from different SSH Masters in Lausanne

	Social Science	Political Science	Psychology	Sports Sciences
Gender and school orientation	2		14	4
Gender, sciences and medicine	13			
Gender sex and public policies	10			
Socialisation and sports				15

In 2013-2014 neither the course on "Division of work and power relations" nor the course on "Sex and racism" took place.

### 5.4 COMPARISON BETWEEN SSH AND STEM DEPARTMENTS/UNITS

### 5.4.1 Research activities

Clearly, gender issues do not appear to be fully integrated into research and teaching in the STEM department. As we know personally from trying to identify people interested in these questions when organising activities for the PlaGe or the CEG-LIEGE, gender specialists are few and far between in the UNIL STEM Faculty. In order to explore this absence further, we took the opportunity of attending the 4<sup>th</sup> Life Science Career Day, held at the UNIL on May 9<sup>th</sup> 2015. 12 This event, organised by the FBM, the CHUV, the Lausanne BioScience Network and the Lemanic Neuroscience Doctoral School, is aimed at MA and PhD Students as well as postdocs, in order to inform them about career options in various life science sectors, both inside and outside academia. During this day of immersion in the Life sciences, we were able to observe some gendered aspects of the messages addressed to young researchers regarding careers and research. The audience of the Life Science Career Day was gender balanced (50% women), with a small minority of MA students, and an equal share of PhD students and post-docs. The plenary speaker at the opening session was a man (as was the chair). He illustrated his talk with power point slides, 8 of which included cartoons with a total of 18 men pictured and not a single woman. He also presented slides with statements all written in the masculine gender. There was a thus strong suggestion that careers in the Life sciences were associated with masculinity and maleness.

This impression was confirmed through an informal exchange with one of the people who had been active in trying to get gender issues better disseminated in the FBM Faculty. She told us that almost all rodent experiments are carried out on male rats, since their hormone cycle means that female rats are not considered to be reliable for biological measurements. Rats are isolated in separated boxes enabling the researcher to keep all biological parameters under control. If several rats have to be put together, the males will usually end up fighting, whereas female rats can cohabit pacifically. However, this ability to cohabit means that female rats will help to keep each other warm, by grouping together, rendering it more difficult to study the parameters related to the body heat, for example. Therefore, although using female rats would be more economical (fewer individual boxes needed), their hormonal cycle and collective behaviour renders them "unreliable" for biological experimentation...

In the SSH department, on the other hand, there is quite a strong interest in gender issues, both in teaching and in research. Due to the active presence of the CEG-LIEGE and the numerous activities on gender issues that have been organised for more than 15 years in the SSP Faculty, there is a good level of gender visibility. However, on closer inspection, it turns out that some of the so-called "gender sensitive" teaching and research activities involve little more than the use of sexually disaggregated data.

However, perhaps this can be seen as a first step in the direction of more gender inclusive research and teaching.

<sup>&</sup>lt;sup>12</sup> http://wp.unil.ch/lifesciencecareerday/ [retrieved 09.05.2015].

### 5.4.2 Teaching curricula

In order to complete the picture of gender issues in the STEM department, we should add that the overall lack of interest for gender issues in the FBM Faculty had already been pointed by an exploratory study realised in the School of Medicine by a medical anthropologist, Catherine Fussinger, in 2011. The title of this study: "Integrating gender into under-graduate medical training: Is it possible to transfer the Dutch experience onto Swiss soil?" is particularly interesting for GARCIA, as the author uses the example of an action-research in gender mainstreaming, carried out by Toine Lagro-Janssen, Professor for Women's studies at the Medical School at Radboud University of Nijmegen (!). Her study explored the means to integrate gender awareness into the medical training curriculum. Even if our GARCIA study focuses on the Basic science section, rather than the Clinical science section, of the STEM Faculty, the work done on strategies to "gender" medical curricula is nevertheless interesting.

Even if gender issues are clearly more present in our SSH department than in the STEM one, some course descriptions suggest that it is occasionally used as a simple variable, rather than as an epistemological or methodological approach. In many of the documents we have analyzed here, it is difficult to establish to what extent the notion of gender is being used descriptively or analytically. This can be seen in the following example of a SSH course description:

### Microsociology of the family life course

Seminar, 6.00 ECTS, male teacher

[...] From a conceptual point of view this seminar - the first part of which will be dedicated to the reading and presentation of a selection of texts - aims at showing how the family is built over the duration of individual and collective life courses. Far from being unchanging, family structures and relations vary according to various time-related logics as, for instance, age of individuals, stages of labor market participation, changes in social networks, and illness. Such more or less controllable events represent the dimensions that deeply influence family structures and dynamics in a reciprocal manner. The purpose is to highlight the interdependencies that exist between family and extra-family time, with a special focus on the mediation of social status, cohort and gender.

In the last sentence of this presentation, it is not clear whether "gender" means merely comparing the work-life interface of men and women or whether the complex processes that produce particular (and historically changing) gendered patterns of time-use will be at the heart of this course.

## 5.5 MAIN CONCLUSIONS ON MAPPING THE GENDER PERSPECTIVE IN RESEARCH AND TEACHING

There is a clear contrast between the SSH and STEM departments as far as integrating a gender perspective in teaching and research is concerned.

In the SSP Faculty, gender is undoubtedly considered to be an absolutely fundamental dimension of social reality, which almost all academics (should be able to) address in their teaching and research, even is this is limited to using sexually des-aggregated data. In this context, Gender studies have emerged as an area of specialist knowledge, which goes beyond the aim of simply comparing the beliefs and practices of men and women as members of distinct social categories. In contrast to the more widespread awareness of sex differences, Gender studies exists as an area of more detailed, focussed and indepth analysis of the processes underlying the production and reproduction of gendered realities in different spheres of society (work, the family, sports, media representations, sexuality, etc.). This distinction between those who acknowledge gender differences as a social reality and those who specialise in the scientific analysis of such differences generally simultaneously through their teaching and in their research, since the two are very closely linked in the UNIL context - could probably be seen as a sign of successful gender mainstreaming in the Swiss SSH context. However, there are differences between the different social sciences (with sociology and anthropology offering more specialized Gender studies courses to MA students than psychology, sports studies or political science, for example), and these intra-faculty differences are equally clear when it comes to research.

In the course of their undergraduate and MA studies, almost all the students from the SSH department in Lausanne will have come into contact with Gender studies as a field of scientific knowledge production and/or will have learnt something about gender differences or inequalities. A small number of these students (approx. less than 20%) will have decided to specialise in Gender studies and/or to produce new knowledge in this field. Likewise, in the course of their academic activities (attending conferences, reviewing articles for publication, supervising MA and PhD dissertations, teaching, applying for research funding, sitting on recruitment boards and participating in Faculty-level decision-making processes, etc.), almost all the academic staff from the SSH department in Lausanne will have come into contact with some form of Gender studies. Again, a small minority (approx. less than 20%) will see themselves and/or be recognised as "gender specialists", dedicating a large part of their teaching and research activities to furthering knowledge in this field of knowledge production.

In the STEM department, the picture is quite different. With the exception of those who have an interest in STS (Science & Technology Studies), almost none of the students will ever have come into contact with Gender studies as a specialist field of knowledge production. Somewhat surprisingly, this would seem to be even more the case in the Basic science section we have decided to study than in the Clinical science section of the FBM Faculty. In the practical training modules addressed at future medical doctors, we at least seem some traces of feminist knowledge production, even if it exists only in a very watered-down version (around issues such as social and cultural influences on

experiences of health, sickness or well-being). In the Basic sciences section there is no trace of any gender awareness in the curriculum. The same is also true of research, where the social construction of gender norms would never appear to be envisaged as relevant to the STEM research agenda.

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### **APPENDICES**

Appendix A. Description of the Swiss National Science Foundation research-funding programmes

"Mandated by the federal government, the Swiss National Science Foundation (SNSF) funds research in all academic disciplines, from history to medicine and engineering. The SNSF is Switzerland's foremost research funding organisation and supports over 3,400 projects involving 14,000 researchers each year." <sup>13</sup>

Among the different types of funding programmes, our study focussed on:

- Project funding, which covers 2 categories (1) all disciplines & (2) interdisciplinary projects: "The SNSF's main funding tool is project funding. A total of approximately 2,500 applications are received each year on two submission dates [...] Funding calls are open to all disciplines and topics; and to both basic and applied research projects. The researchers define their research project and ask the SNSF to cover the direct research costs, such as staff salaries, research equipment and travel expenses."
- Sinergia: "The Sinergia programme offers a platform for inter-, multi- and unidisciplinary projects initiated through the collaboration of different research groups [...]. A Sinergia project generally consists of three to four sub-projects under the auspices of three or four research groups."<sup>15</sup>
- Agora: "Agora supports researchers from all disciplines and career stages who want to share their results with a wider public. The scheme aims to promote the dissemination of knowledge as well as the exchange of views and perspectives about scientific research. It therefore encourages projects involving two-way processes with interaction and exchange which generate dialogues between researchers and the public and / or stakeholders. A project may consist of both small communication formats and large-scale initiatives with more far-reaching goals. Grants of between CHF 5,000 and CHF 200,000 are awarded for a maximum of three years." 16

<sup>&</sup>lt;sup>13</sup> http://www.snf.ch/en/theSNSF/profile/Pages/default.aspx [retrieved April 7, 2015].

<sup>&</sup>lt;sup>14</sup> http://www.snf.ch/en/theSNSF/evaluation-procedures/project-funding/Pages/default.aspx [retrieved April 28, 2015].

http://www.snf.ch/en/funding/programmes/sinergia/Pages/default.aspx#Participation%20requirements [retrieved April 28, 2015].

<sup>&</sup>lt;sup>16</sup> http://www.snf.ch/en/funding/science-communication/agora/Pages/default.aspx [retrieved April 28, 2015].

Appendix B. Research projects in the Basic science section of the STEM department that started in 2013

Academic position of the lead researchers	Sex	Funding	SNSF - funding category	Title
MER, privat- docent	М	1'200'000	Sinergia	A synergistic approach for the analysis and gene replacement therapy for FAM161A deficiencies
MER, privat- docent	Μ	595'000	Disciplinary project funding	Maintaining homeostasis of the extracellular fluid: role of the intrinsic renal circadian clocks and other renal mechanisms (II).
MER, privat- docent	F	300'960	Disciplinary project funding	Sensing chemical danger cues via the Grueneberg ganglio
MER	F	300'960	Disciplinary project funding	Isolation and characterization of genes involved in cuticle formation
Full Professor	М	6'000'000	Interdisciplinary project funding	Targeted Photoablation of Breast Cancer through Urokinase- sensitive Photosensitizer Prodrugs
Full Professor	М	792'580	Disciplinary project funding	Using a new dendritic cell tumor model in the mouse for probing dendritic cell biology and cancer
Full Professor	М	699'222	Disciplinary project funding	Developmental cell biology of the BRX pathway in hormonal regulation and root stem cell regeneration
Full Professor	М	713'880	Disciplinary project funding	Genome transcription and regulatory evolution in tetrapods
Full Professor	М	713'880	Disciplinary project funding	Molecular and cellular basis of recovery during sleep
Full Professor	М	648'441	Disciplinary project funding	Role of microRNAs in pancreatic beta-cell dysfunction and in the development of diabetes mellitus
Full Professor	М	840'000	Disciplinary project funding	The evolution of sex chromosomes: a perspective from amphibians
Full Professor	F	918'000	Disciplinary project funding	Mechanisms of basal and regulated mammalian RNA polymerase III transcription
Full Professor	М	280'000	Agora	Envisioning Bodies. From Vesalius up to now. A half Millennium of Knowledge, Practices and Culture
Associate Professor	М	424'000	Disciplinary project funding	Arabidopsis innate immunity against insect eggs
Associate	М	493'920	Disciplinary	Fibroblasts in secondary lymphoid

TOTAL		18'238'407.00		
Assistant Professor - Tenure Track	Μ	511'916	Interdisciplinary project funding	Efficient computational solutions for advanced codon models of natural selection
Associate Professor	М	200'000	Agora	The Napoleome
Associate Professor	F	638'880	Disciplinary project funding	Analysis of the molecular and physiological function of the protease MALT1
Associate Professor	F	562'920	Disciplinary project funding	The sleep spindle: from molecular pacemakers to arousal control
Associate Professor	F	343'960	Disciplinary project funding	The development of Leishmania- specific immune response
Associate Professor	М	438'000	Disciplinary project funding	Quantinemo2
Associate Professor	М	621'888	Disciplinary project funding	Linking sleep-wake distribution to peripheral clock-gene oscillations
Professor			project funding	organs: characterization of their development and function

Appendix C. Research projects in the SSH department that started in 2013

Academic position of the lead researcher	Sex	Funding	Funding source and category	Title	Gender content
Assistant professor - tenure track	M	336'214	SNSF - Disciplinary project funding	Academic Elites in Switzerland 1910-2000: Between Autonomy and Power	Yes
Assistant professor - tenure track	F	380'358	SNSF - Disciplinary project funding	Switzerland and the Cold War in the Third World. The Swiss Political and Economic Role in the Main Armed Conflicts and Crises in Sub-Saharan Africa and the Middle East, 1973-1983	No
Assistant professor - tenure track	М	171'312	SNSF - Disciplinary project funding	The motivational system of career choices: Effects on choice implementation and career success	Yes
Associate Professor	F	402'643	SNSF - Disciplinary project funding	Homosexualities in Switzerland, from the end of World War 2 to the AIDS epidemic	Yes
Associate professor	M	55'869	SNSF - Disciplinary project funding	Social solidarity: Explaining support for the welfare state among the advantaged and disadvantaged in four European countries	No
Associate Professor UNIGE & MER UNIL	F	183'592 (UNIL) / 369'593 (total)	SNSF - Disciplinary project funding	The emergence and reconfigurations of a public problem. Violence against women in Switzerland (1970-2012)	Yes
Full Professor	F	457'801	SNSF - Disciplinary project funding	To the test of scandal. Figures of singularity and regimes of visibility in the contemporary public sphere	No
Full Professor	М	379'381	SNSF - Disciplinary	Change structure and structure of change:	No

Full	M		project funding SNSF -	academic curricula production in Switzerland and Bologna reform Federalism and	No
Professor	IVI	334'024	Disciplinary project funding	Economic Crisis	NO
Full Professor	M	1'376'821	SNSF - Sinergia	The Struggle for Competence in Academic Selection: Social Psychological Influences on Competence Threat	No
Full Professor UNIGE & Full Professor UNIL	F	206'782	European Commission	Changing families in sustainable societies: Policy contets and diversisty over the life course and across generations	Yes
Full Professor	F	1'133'605 (total)	SNSF - Sinergia	Other Modernities: Patrimony and Practices of Visual Expression Outside the West	No
Full Professor	М	161'067 (UNIL) / 600'000 (total)	SEFRI (State Secretariat for Education, Research and Innovation)	Integrated service and data center	No
Full Professor	M	60'000	UNIL-EPFL Collaborative Research on Science and Society (CROSS)	Modelling the distribution of knowledge and altitudes in energy issues: A computer simulation and an empirical survey	No
MER	M	179'512	SNSF - Disciplinary project funding	Chinese goods' revolution in Africa	No

Appendix D. Courses with a gender dimension in the Clinical science section of the STEM department, 2013

Titles	Sex of the	Single class or	Within module	Estimated	MICS (1)
IIIIG	teacher	domain of study	Within	length	MICS (1)
Feminine sexuality: problematic situations encountered in clinical practice	3	Class	Individu-Communauté-Société	1/4 day	×
Masculine sexuality: problematic situations encountered in clinical practice	3	Class	Individu-Communauté-Société	1/4 day	×
Gender and medicine: Women and men in the field of healthcare	П	Class	Individu-Communauté-Société	+/- 1 day	×
Medicine and gender	TI	Class	Généralisme II	1/3 day	
Neither girl nor boy: disorder or difference (2)	≤				

<sup>(1)</sup> = Courses that are part of the MICS (under-graduate) program

<sup>(2) =</sup> This course was listed in the CEG-LIEGE census but we did not find any other information about it

Appendix E. MA Courses with a gender dimension in the SSH department

	Sex of the	Gender di	dimension as			Gender
Title	teacher	Central	Secondary	ECTS	Format	Studies program (1)
Gender, sexuality and public problems	ъ	+		6	С	×
Gender, sciences and medicine: specific themes	ㄲ	+		6	S	×
Dissertation Workshop: Gender Studies	₽	+		ω	S	×
Sport and socialization from a gender perspective	┰	+		6	S	×
Gender and professional orientation	'n	+		ω	S	×
Transition to parenthood through the life course	T	+		ω	S	
Sexism and Racism: Intersecting Forms of Domination	п	۰		6	S	×
Division of labour and power relations	П	۰		6	S	×
* Gender and history in the 19th and 20th centuries	ъ	۰		ω	C	×
* Equality between women and men: the gender perspective in law	п	٥		ω	С	×
* Gender and war(s) in the 20th century	ъ	۰		ω	C	×
* Gender, training, and work	п	٥		ω	С	×
* Gender inequalities, development and postcolonial feminist theories	ъ	۰		6	C	×
* Gender at the heart of anthropology	П	۰		ω	C	×
* Methodologies in gender studies	3	۰		ω	C	×
* Transnational migrations, sex, race and class relations	П	۰		ω	С	×
* Thinking from the margins I : Postcolonial Studies and gender	т	۰		ω	C	×
* Thinking from the margins II : an introduction to Gay & Lesbian Studies	П	۰		ω	С	×
* Sociology of gender	ъ	۰		ω	C	×
Sociology of education	П		‡	6	C	
Sociology of education	ъ		++	ω	S	
Sociology of work: The symbolic economics of work	П		‡	ω	S	×
Interpretative methodologies	3		‡	ω	S	×
Microsociology of family life course	П		0	6	S	
Counselling and Career Guidance Psychology	≤		0	ω	C	

Counselling and Career Guidance Psychology	
Ζ	
00	
3	
S	

C = Lecture

S = Seminar

° = Central according to the description

°° = Secondary according to the description

\* = Courses given by other Swiss Universities (available to UNIL students)
+ = Central according to the LIEGE census

++ = Secondary according to the LIEGE census

(1) All these courses are part of the Gender Studies specialism (which is one of the optional specialisms for students in the Social Sciences MA programme), but can be taken as a part of other programmes as well.

### Appendix F. Master courses on gender issues in the SSH department

Hereafter, we summarize the content of the courses we identified and the degree to which they relate to gender, based on their description (when available).

The ones that are part of the LIEGE census are marked \*\*\*.

### **Dissertation Workshop: Gender Studies \*\*\***

Seminar, 3.00 ECTS, female teacher

This course is a workshop intending to help students with their Master thesis. Gender is thus not an object as such but is obviously part of the workshop since it is intended for students in Gender Studies, given by a teacher coming from the Gender Studies orientation.

### Gender and career guidance \*\*\*

Seminar, 3.00 ECTS, female teacher

This course, from the Psychology Institute, looks at the impact of gender (especially 'atypical gender orientations') on educational and vocational counselling and aspirations and also addresses the interrelations between gender, class and ethnicity. Based on research in Sociology as well as Social Psychology

### Gender, sciences and medicine: specific themes \*\*\*

Seminar, 6.00 ECTS, female teacher

This course is aimed at developing a critical eye as well as a historical and contemporary view on how gender has been structuring scientific and medical knowledge and practices. Theoretically situated at the crossroads between Gender Studies and Science & Technology Studies, its main focus is on sexuality.

### Gender, sexuality and public problems \*\*\*

Lecture, 6.00 ECTS, female teacher

Based on classical and contemporary Feminist theories and Gender Studies, this course addresses the way public problems (more precisely on the sexualized body and the question of violence) are constructed, denounced by feminist and LGBTQ movements, and eventually received within society. Diverse theoretical frameworks are discussed, such as structuralism, methodological individualism / holism, interactionism, speech act theories.

### Sport and socialization from a gender perspective \*\*\*

Seminar, 6.00 ECTS, female teacher

This class takes a sociological approach to addressing gender related to sport taken as body practices, social institution and socializing process contributing to the construction of gender. Many subjects are addressed such as sexualized stereotypes, hegemonic masculinities, sexualized view on competition, success and risk taking, violence against women, homophobia, racism, gender equality and identities.

### Sociology of education \*\*\*

Lecture, 6.00 ECTS, female teacher

Discussing the general issues raised by sociology of education (e.g. public policies), this class addresses the consequences in terms of social, ethnic as well as gender inequalities with regard to knowledge, its different forms of relationship, transmission and the question of socialization, from both a societal and individual perspective.

### Sociology of education \*\*\*

Seminar, 3.00 ECTS, female teacher

This seminar focuses this year on the relationships developed with regard to different forms of knowledge when embodied in s 'knowledge-society'. Students will conduct observations during a robotic festival. Gender is not mentioned here. However, this seminar can be understood as the continuity of the previous course with the same name.

### Sociology of work: The symbolic economics of work \*\*\*

Seminar, 3.00 ECTS, male teacher

This seminar looks at the symbolic economics of work, as studied by interactionists as well as by Bourdieu and other sociologists. Gender dimension is also discussed, for instance when speaking of professional identities.

### Interpretative methodologies \*\*\*

Seminar, 3.00 ECTS, female teacher

This teaching addresses interpretative research methodologies in social sciences, putting an emphasis on discourse (and text) analysis as well as how meaning is constructed through actions and interactions. Different topics are discussed such as collective and individual identity construction and social problems. No explicit mention of gender.

### Transition to parenthood through the life course: trends and explanatory approaches \*\*\*

Seminar, 3.00 ECTS, female teacher

This seminar approaches the transition to parenthood in modern societies under the lenses of theories in social sciences, notably demography, sociology, economics and political science. Topic such as fecundity, atypical transitions to parenthood (single mother, teenagers, same-sex couples) will be discussed.

### Division of labour and power relations

Seminar, 6.00 ECTS, female teacher

On the basis of recent research on the gender division of labour, this seminar aims to analyse the dynamics of the power relations that determine the social and sexual division of labour in contemporary societies. It will mainly focus on the gendered division of paid and unpaid labour, but through an "intersectional" lens, looking at the way gender relations intersect with other forms of inequality and hierarchy, such as age, social class and ethnicity.

### Microsociology of family life course

Seminar, 6.00 ECTS, male teacher

This seminar has a strong methodological orientation. Family life course studies are introduced through the analysis of rich longitudinal data. The purpose of the readings and presentation is to highlight the interdependencies that exist between family and extra-family time, with a special focus on the mediation of social status, cohort and gender.

### **Counselling and Career Guidance Psychology**

Lecture, 3.00 ECTS, male teacher

The goal of this course is to present the main theories and some specific and important domains in the fields of counselling and career guidance psychology. The role of gender in professional insertion is addressed.

### **Counselling and Career Guidance Psychology**

Seminar, 3.00 ECTS, male teacher

The goal of this course is to present the main theories and some specific and important domains in the fields of counselling and career guidance psychology. The role of gender in professional insertion is addressed.

### **Sexism and Racism: Intersecting Forms of Domination**

Seminar, 6.00 ECTS, female teacher

This seminar discusses the roles of sexism and racism in current debates about immigration and in legislative initiatives that restrict the rights of foreigners. It will examine public discourse on this topic (from political texts, radio and television programs, newspapers, etc.) with an eye to understanding how sexist and racist ideologies intersect in the arguments advanced.

### **6 SLOVENIA**

### **6.1 INTRODUCTION**

Two institutions were analysed: Department for the Agronomy of the Biotechnical Faculty, University of Ljubljana, as a STEM test institution for both research and curricula; and the Fran Ramovš Institute of the Slovenian Language, Research Center of the Slovenian Academy of Sciences and Arts, as a SSH test institution for research only, since this institution is not involved in an educational programme (i.e. there was no curriculum to be analysed).

For the Department of Agronomy, we analysed curriculum for the degree of the MA in Agronomy, which included 13 compulsory courses and additional 16 elective courses, for duration of 2 years. The list of the courses with a short description will be provided bellow, in order to ease the reading of the overall analysis of the academic course.

Regarding the research activity of the Department of Agronomy, we managed to obtain 17 out of 24 (78%) project reports, issued in the year 2013 by the members of the Department for the Agronomy. The sample is incomplete because part of the project coordinators did not reply to the (repeated) request to send their project reports. This analysis is based only on the project reports, because we were unable to obtain project applications – which would describe the content of the ongoing projects – since they are protect as a professional secret. Therefore, the sample does not contain the projects that started or were ongoing in the year 2013. However, we consider that the large number of the analysed projects (17), <sup>1</sup> together with random character of collecting, produced a representative sample of the test STEM institution research portfolio.

For the Institute of the Slovenian Language, we analysed all of the projects that started, ended or were ongoing in the year 2013 – 12 of them. The analysis was based on the project applications (of the approved projects), thus they lacked insight into results (many of which would not be available yet because the projects are still ongoing). However, this acquired enough insight into the content, tasks, methods, theories, aimed and results of the analysed projects, in both cases of the test institutions.

In addition of conducting textual analysis of the projects and curriculum, we disseminated questionnaire<sup>2</sup> about whether lecturers/researchers perceive gender-related dimension in their curses/projects: 32 for STEM courses, 21 for STEM projects, in overall 37 for STEM staff (some persons are both lecturers and researchers); and 9 for SSH researchers (who participated in those 12 projects). The turnout rate was 15 out of 32 questionnaires for courses, and 10 out of 30 for both STEM and SSH projects.<sup>3</sup>

Finally we analysed gender structure of the project staff. In case/cases of externally founded projects (projects coordinated outside the test institution) we noted only projects members coming from the test institution, not the overall project team.

<sup>&</sup>lt;sup>1</sup> Which is not more than 11 projects – the *whole* production of the comparative SSH test institution.

<sup>&</sup>lt;sup>2</sup> Via Google docs platform.

<sup>&</sup>lt;sup>3</sup> The questionnaires were anonymous, thus it was not possible to trace how many replies came from which institution.

# 6.2 MAPPING A GENDER DIMENSION IN EXISTING RESEARCH AND CURRICULA AT STEM DEPARTMENT

The analysed STEM research institute is the Department for the Agronomy of the Biotechnical Faculty, University of Ljubljana. The Department is conducting both pedagogical work and scientific research.

### **6.2.1 STEM Curriculum**

The curriculum programme we have analysed is for the MA in Agronomy. This two year course, is comprised of 13 compulsory courses (8 in the 1<sup>st</sup> year, 5 in the 2<sup>nd</sup>) and 16 elective courses:

	Course title	Course description
Con	npulsory courses	
1	Fitomedicine II	Fitopathology (plant diseases), parasites, fungus, bacteria, viruses.
2	Genetics, plant breeding and biotechnology	Genomics, genome analysis, genetic modifications.
3	Statistics II	Planning experiments and analysis of the data. Statistical analysis of the experiments. Variance analysis, fixed and changing variables.
4	Ecophysiology of plants	Waters and minerals in ecology and nutrition of plants. Utilisation of Carbon and photosynthesis.
5	Field crop production	Biology of crop growth. Morphology and other specificities of cereals and other types of crops.
6	Grass cultivation and production of grazing	Botanical characteristics of grass. Relevant factors in grazing production. Importance of grass for ecological protection. Influence of sun, temperature and water on grass.
7	Holistic organisation of farm space	Organisation and parcelling of the farmland in the past.  Development of farming and creation of cultural landscape. Economical and ecological aims of comasation (After years of cutting/pasting patches of land due to inheriting, (re)selling and infrastructure building, comasation is a periodical reshaping of field borders in order to make more compact patches of land). Local hydro- systems, floods and irrigation.
8	Agro-ecosystems and nature protection	Circulation of substances and energy in a farming area. Evaluating quality of the soil. Protection of habitat and biodiversity.
9	Use and protection of soil	Classification of soils. Land evaluation from the perspective of multifunctionality. Dedication of land for urban or farm development. Degradation of land and potentials for its recultivation and revitalisation.
10	Sustainable farming	Multifunctionality of farming (production of food, industrial resources and source of renewable energy).  Multifunctional farming pays attention to mutual effects of the environment and human as a social being.  Differences between traditional, conventional and

		sustainable farming. Principles of integrated farming and organic/ecological farming, and particular fallacies that make them unsustainable. Alternative methods of sustainable farming.
11	Biometerology	Influence of relief on local weather. Factors of UV radiation. Defence from icing, strong winds and hail. Agrometereological dimension of circulation of water in nature. Modelling plant growth. Climate change and its impact on farming.
12	Monitoring environment and information systems	Legislation related to nature protection. Methodology of monitoring soil quality. GIS technology in collection of information. Monitoring air pollution.
13	Level of chemicals in the soil with basis of ecotoxicollogy	Chemistry of soil. Sources of pollution. Chemical reactions of the polluters. Pesticides, inorganic and organic polluters.
Elec	ctive courses:	
14	Scientific and technical information	Definition of a complex agronomic research object.  Specific terminology. How to find relevant sources of information and data basis , patents, legislation, market information etc.
15	Sociology of farming, nutrition and natural sources	Theoretical and historical aspects of sociology of farming and nutrition in industrial and developing states. Political, sociological, scientific and ecological factors crucial for interaction between food producers, technology and environment. Sociological analysis of sustainable farming (green revolution) in risk societies. Transnational corporations and globalisation of farming. Sociological background of farming restructuring and ecological farming. The concept of safe food; relations between food producers and consumers.
16	Biological control of plants	Biological extermination of parasites, diseases and weeds. Protection of domestic and introduction of foreign species.
17	Molecular diagnosis of plants	Various molecular techniques. DNA extraction.
18	Micropropagation	Growing plants in vitro. Cloning plants in laboratories.
19	Bioindication in land ecosystems	Use of bioindication for establishing the state of environment in land ecosystems as a consequence of air and soil pollution. Forest degradation. Higher plants as indicators of pollution.
20	Mechanisation in agronomy	Mechanisation in farming: development of farming tools, the role of tractor, machines for seeding etc.
21	Design of a fruit plantation	How to create a plantation. Creation of a simulation project (investor, land, ecological and soil quality of the land etc.)
22	Governing with biogenic waste	Biological and animal waste at a farm. Recycling in cities. Production of biogas. Composting.
23	Economics and organisation of farming	Natural parks and urban green areas, cemeteries, public and private gardens. Public greenery.

	production processes			
24	Geographic information system	Collection and preparation of spatial data for geoprocessing. Spatial computer modelling.		
25	Ecology and systematisation of foreign plants and weeds	Characteristics of the most common foreign plants and weeds - suitable ecological factors, potential invasiveness. Interaction with domestic plants.		
26	Quarantine pests	Concept of plant quarantine. The role of fitosanitary inspection. Prevention of dissemination of pests. Spread of diseases.		
27	Genetics and breeding of quantitative qualities	Quantitative qualities of plants. Components of genetic variability. Heritability. Population characteristics. Frequency of genotypes in different populations. Quantitative genetics for plants. Hybridization.		
28	Turf grass for decorative, recreational and sport purposes	Soil requirements for different types of turf grass in Slovenia. Soil preparation. Suitable methods of semination. Evaluation of damages on turf grass due to sport and other activities.		
29	Ecological farming	Development of ecological/biological/organic farming (including relevant legislation). Standards and control agencies. Certification and labelling of eco-/bio-/organic products. Use of traditional and new technologies. Ecological surrounding needed for ecological farming. Importance of linking ecological production, processing and use.		

### 6.2.1.1 Content

The large majority of the courses (20 out of 26) have no societal dimension whatsoever — they completely fall into the field of natural sciences where there is no agency of human being as a social person (e.g. *Fitopathology* (No.1), *Biometereology* (No.11), *Geographic information system* (No.24)). The rest of 6 courses have potential for some social dimension, but only 3 courses actually contain social dimension (courses No.5, 20, 29, and courses 7, 10, 15, respectively). Only one (elective) course contains gender dimension: *Sociology of farming, nutrition and natural sources* (No.15), 3 ECTS. However, in the description of this course, gender dimension is not mentioned as such, but one of the entries in the course literature evidently contains such a dimension: "Farm women in Slovenia". One additional (compulsory) course — *Holistic organisation of farm space* (No.7), 6 ECTS — has a potential for a gender-sensitive approach, but is not utilising it: One of the topics within this course deals with reshaping of farming space throughout the history and types of land parcelling used in previous epochs, while a gender sensitive approach would probably involve examination of gendered pattern of land ownership and inheritance.

These findings are to be compared with the results from the returned questionnaires (15 out of 32 lecturers). Among them, two lecturers replied that their course is vaguely relate to gender, though they confirm that such a dimension is not stated in the course description. These are: compulsory course *Sustainable farming* (No.10, 4 ECTS) and

elective course *Economics and organisation of farming production processes* (No. 23, 3 ECTS). This information indicates that gender is probably mentioned also in some other courses where it is not mentioned in course description, but also indicates that the gender dimension is not considered important enough to be mentioned in the course description. In addition, if/when gender dimension is mentioned in the class, we have no insight whether it is done in gender sensitive manner.

All of the courses descriptions were written in a technical and gender-neutral language, and the course description does not contain visual representations. It remains open to what extent is visual representation used in classes (e.g. power points) gender sensitive.

### 6.2.1.2 Objectives and tasks

We could not detect any hidden or overt aspect involving gender roles and stereotypes in the objectives of the presented curriculum.

### 6.2.1.3 Methodology and theoretical background

As described above, only one elective course (*Sociology of farming, nutrition and natural sources* No.15) contains an obligatory course reading which, assuming by its title, indicates some type of gender-sensitive epistemology: Černič Istenič, M. Farm women in Slovenia. In B. B. Bock & S. Shortall (eds.), *Rural gender relations: issues and case studies*. CABI Publishing, 2006. The author of the publication entry is at the same time the professor teaching at the course.

We could not conclude, from course description, to what extent this publication employs concepts from gender perspective. No other course indicates to be relating to gender in any way.

### 6.2.1.4 Gender structure

The gender structure of the course lecturers in overall favours male staff.

male full	female full	male assistant	female assistant	
professors	professors	professors	professors	overall
9	6	7	4	26

In overall, 62% of the staff is male and 38% is female, which is approximately the same gender ratio among the full and assistant professors. The disparity is even larger if one counts teaching positions<sup>4</sup> (overall 39): 67% of teaching positions are occupied by male, and 37% by female.

The only one course that contains gender dimension, is lectured by a female full professor.

Since this is a 2 year course, we analysed gender structure of students enrolled in 2012/2013 school-year (46 students) and 2013/2014 school-year (53 students). The gender rate is similar for both school-years, in average constituting 25% of male and

<sup>4</sup> The difference between the number of academic staff (26) and teaching positions (39) is due to the fact that some persons teach more than one subject.

75% of female students. Therefore, the gender rate between lecturers and students is inversely proportional:  $^2/_3$  of lecturers are male, while  $^2/_3$  of students are female, thus there is obvious gender imbalance.

Students	2012/2013	%	2013/2014	%	in average %
Male	11	23,91	14	26,42	25,16
Female	35	76,09	39	73,58	74,84
Total	46		53		

Data on gender structure of the students attending each of the elective courses was not available.

### 6.2.2 STEM Research

We analysed 17 out of 24 projects concluded in year 2013 by the researchers from the Department of the Agronomy. Most of them are either projects commissioned by a public institution (various Municipalities and Ministries, Government Agencies etc.) and conducted solely by the Department staff, or applied research projects, in most cases coordinated by another scientific organisation. None of the project reports contained information on the budget.

### The list of analysed projects:

1. Applied project: The analysis of the impact of the establishment of the replacement habitats in the area OPPN 398 on farming

Commissioned by the Municipality of Ljubljana, 1 year.

The projects conducts analysis and issues recommendations of the problem how to plant new habitats on the abandoned part of landfill Barje. One smaller part of the analysis deals with the issue of the land ownership within the analysed area, which potentially always could include gender-sensitive analysis of land ownership. However, considering the content of this project there seems to be no need for a gender dimension. The language of the project report combines gender neutral forms and gender non-sensitive forms (e.g. using generic male form).

2. Research applied project: FoodMetres: Food planning and innovation for sustainable metropolitan regions

7FP project, coordinated by the Wageningen University Research Centre (the Netherlands), lasted at least 3 years.

The project deals with both the environmental and the socio-economic impacts of food chains with regard to the spatial, logistical and resource dimension of growing food. It

devises methods of evaluation of food chains (trajectory of food from the field to the table), with the aim of achieving sustainable agro-food systems. Though it has a strong social component, there is no strong gender dimension, nor there seems to be a need for it. However, where applicable, gender-awareness is present: "Making a transition from pre-prepared convenience food, to cooking from scratch depends in behaviour change, ... the work is more likely to fall upon women than men. Despite increases in the numbers of women working outside the home, in most countries it is still the case that women (especially mothers) are the main party responsible for food shopping and cooking ... Indeed, it may well be speculated that for local food chains to become truly sustainable and embedded into daily practice, a social <u>innovation in the gender division of labour</u> around food may well be required" (p. 21). The language of the project documentation is gender-neutral.

3. Applied research project: Combination capabilities of the genotypes of the corn from the gene bank relevant for the economically important characteristics

Coordinated by the Department of the Agronomy, financed by the national Research Agency (ARRS), 2 years.

Gene analysis relevant for hybridisation of corn plants, and experimental breeding. The experiment examined photosynthesis and utilisation of water potentials. No social or human-related dimension.

4. Applied research project: Potentials for farming on the source-water protected areas

Coordinated by the Geological Survey of Slovenia, financed by the national Research Agency, unclear duration (probably more than 1 year).

Examining specificities of farming on the land within the area of source-water protection (e.g. land around wells, springheads and streams which are used as a source of drinking water) and providing recommendations. No social or human-related dimension.

5. Applied project: Evaluation of the possibilities for prevention of damage due to drought by establishing irrigation systems: analysis of the impact of the chain of hydroelectric power plants on the lower Sava river onto the integral budget of the Republic of Slovenia

Commissioned by a Slovenian consulting company (*Elek Svetovanje d.o.o.*), less than 1 year.

Conducted detailed technical and financial analysis. No room/need for a gender-related dimension.

6. Applied project: Consequences of building eastern bypass around Brežica, within the building of the hydroelectric power plant Mokrice, for utility of the farming, and examination of the possibilities for preservation of farming production capacities

Commissioned by the Municipality of Brežice, 1 year.

The project is very technical, hence there is no room for gender dimension. Data about ownership of farms, age structure of farmers and inheritance relations have been collected, but they were not disaggregated by gender. This is congruent with the topical focus of the project – gender division of data would not add value to the project content. The language of the project report uses gender sensitive forms, and to a lesser extent (in tables and the conclusion) non-sensitive forms (e.g. generic male form). No hidden aspects involving gender roles have been noted.

### 7. Research project: Development directions of the farms in Slovenia

Commissioned by the Ministry for farming and environment and the national Research Agency, 2 years.

The aim is to establish which tangible and intangible factors (de)motivate farmers to pursue farming during the decision-making process about the handover of the farm (to the next generation) as well as in the subsequent life-cycles. The language of the project report is combining gender-sensitive with non-sensitive forms of expression, as well as with forms which strive to be gender-neutral, but it seems that non-sensitive variant prevails. There are no visual representations that could be analysed from a gender perspective.

In the design of the project (including tasks/objectives) no gender roles were implied. Nevertheless, the analysis regarded year of marriage as a water-shed point for farming family, which is considered as informal handing over of the farm from one generation to another (e.g. p. 51-52). The hidden aspect of presented approach is that single-headed families are not analysed, thus are implicitly considered as atypical, and that such a criterion is explicitly hetero-normative (p. 51 and further).

The project relies on the gender-sensitive approach of the agrarian anthropology, which pays attention to the changing relations between genders and generations in farming households. Likewise, theoretical background of the project contains explicit reference to gender-sensitive studies (e.g. "Young farm women heads in Greek agriculture: entering farming through policy initiative", pp. 4, 96, and "Family and Gender in the Transformation of the Countryside", p. 102). Nevertheless, this seems not to be consistently gender-sensitive study, though it reveals great deal of gender awareness.

The project combines collection of quantitative and qualitative data, which generally are not disaggregated by sex in the project report – division of target group by gender is given only in overall terms in introduction (p. 6). Quantitative data: gender is not systematically used as a variable throughout the research – for instance, gender of the farm owner is not systematically presented in tables and statistical analysis of other variables (e.g. p.7, 9). The main analysed categories were: economical type of a farm (market-oriented or self-sustainable), its production orientation (cattle-breeding or other) and production type (conventional, ecological or integrated) (p.7-8). While it is

clear that gender dimension is not relevant for every aspect of farming (e.g. production type), it is relevant to mention that gender variable was <u>not</u> consistently taken into account even when analysing socio-economic characteristics of farms (p. 16-20). Qualitative data: gender is more present in collection of qualitative data, however it is not used as a variable in the systematic analysis (e.g. making difference between male/female farmers or members of household) – except regarding division of labour in a household, but still, this is only 1 out of 20 conclusions of the interview analysis. The analysis of focus groups reveals gender awareness, however, since the bulk of qualitative data has not been intersected with the gender variable, the overall conclusions in relation to gender are less conclusive (p. 93). A gender impact assessment is not included.

However, based on the reply from the questionnaire, a member of this project team considers that the project relates to gender in collection of data (data base analysis and interviews) and in the project results (overall analysis of the development enhancing factors).

Suggestion for incorporating gender sensitive content and methodology: The project contains potential for gender-dimension, especially in the analysis of "intangible factors" which are related to "the dynamics of changing relations among members of a farming family" (p. 4). However, this potential was not fully exhausted in the project. It seems that had the gender-dimension been applied throughout the project, theoretically it could have provided interesting and potentially relevant data. For instance, it could have analysed whether there is a difference in pattern of motives and expectations about farm hand-over between male and female owners/inheritors. Such an approach seems relevant, especially in the light of gender related literature review.

8. Applied research programme: Sustainable use of water for enhancing plant growing potential in Slovenia

Commissioned by the Ministry for Farming and Environment,  $1^{1}/_{2}$  year.

Analysis of the use of existing irrigation systems and devising recommendation for developing new ones. The project does not contain gender-related dimension, nor there is a need for a one. The language of the project report combines gender neutral forms and gender non-sensitive forms (e.g. using generic male form (non-sensitive language). While conducting focus groups (with farmers from different areas), the applied methodology did not take into account of the gender of the focus group participants – which is congruent with the project subject which has no potential rationale for incorporating gender-dimension.

9. Applied research project: Management of copper intake in production technologies of permanent crops

Coordinated by the Farming Institute of Slovenia, financed by the national Research Agency, 3 years.

Upon the analysis of a high copper level in test soil of permanent orchards, the project analyses different potential strategies of lower level of copper in the anti-pest chemicals, without jeopardising immunity of plants. No social or human-related dimension.

10. Applied research project: Integrated drought management in Central and Eastern Europe

Coordinated by a Slovak organisation (Global Water Partnership in Central and Eastern Europe), financed by the World Meteorological Organisation (UN), unclear duration.

Drought management by agricultural practices and measures – increasing water-holding capacity of soil. No social or human-related dimension. The language is gender neutral.

### 11. Applied project: Measuring at lysimeter station in Kleče

Commissioned the by the Municipality of Ljubljana, 1 year.

The analysis of the amount of water-soluble matter in soil at particular geographical point. No social or human-related dimension.

### 12. Applied project: Testing the use of rockwool cubes and flocks in flowerpots

Commissioned by Knauf Insulation d.o.o., less than 1 year.

Technical experiment related to use of particular material (rockwool) in flowerpot cultivation of vegetables. Though the project was conducted by female-only research team, the project report consistently used (generic) male form in plural. No social or human-related dimension.

### 13. Applied project: Sustainable use of soil in the Municipality of Lendava

Commissioned by the (public) Institute for Environment and Space, 1 year.

The project involved systematised collection of soil samples within the Municipality. Analysis of the causes of the soil degradation. One tiny part of the analysis deals with the issue of the changing pattern of farmland ownership, which potentially always could include gender-sensitive analysis of land ownership. However, considering the content of this project there seems to be no need for a gender dimension. The language of the project report combines gender neutral forms and gender non-sensitive forms (e.g. using generic male form (non-sensitive language).

14. Applied project: Evaluation of the different ways to paying compensations on the territory of the planned dry reservoir Brdnikova (OPNN 310)

Commissioned by the Municipality of Ljubljana, 1 year.

Conducted detailed technical and financial analysis. No room/need for gender-related dimension. The language is not gender-sensitive.

15. Applied project: Income method for determining value of a farm land based on production potential

Commissioned by the Association of Court Experts and Appraisers for Farming Profession, less than 1 year.

The project clarifies methodology for farm land evaluation according to the new legislation. No social or human-related dimension.

16. Applied project: Preliminary analysis and recommendations for the monitoring of the quality of soil and substances in the soil on the territory of the state spatial plan for the provision of flood control in the Valley of lower Savinja River

Commissioned by the Ministry of Farming and Environment, less than 1 year.

The project deals with systematic chemical and physical analysis of the soil. No social dimension.

17. Applied project: Professional examination of the process and content of the calculation of the cadastre income on the basis of the Law on the determining cadastre income (ZUKD-1)

Commissioned by the Surveying and Mapping Authority of the Republic of Slovenia, 1 year.

The project had the aim to evaluate and correct the income calculation formulas devised by the Authority. Particularly the calculation related to bee breeding, which has not been done by the Authority before, and was introduced by the new Law for determining cadastre income. No social or human-related dimension.

### 6.2.2.1 Content

Among the analysed project large majority (13 out of 17, 76%) have no societal dimension. In addition, 2 projects (No. 1 and 13) collect data on farm-land ownership, which theoretically could always be divided by gender (and thus analysed from a gender perspective), but the project content in both cases would not justify a rationale for a gender dimension.

Only one project is indirectly related to gender (No. 7, *Development directions of the farms in Slovenia*), though gender as such is not primary topic of the project. As described above, the project did not analyse gender component systematically, though it seems that it would contribute to the conclusiveness of the project conclusions. Though the project literature review cites publications which employ gender-sensitive methodology, it was not systematically applied in the project. Additionally, one project (No. 2, *FoodMetres: Food planning and innovation for sustainable metropolitan regions*), which conducts extensive social analysis, though there is no gender dimension (nor need for it), still expresses awareness of gender-related issues.

By the rule, among the projects without societal dimension (76%), the language of the project reports is too technical to evaluate whether it is gender-sensitive, since the humans are practically not mentioned at all. Other projects usually do not have gender-sensitive language (e.g. constantly using male form) or are gender-neutral. Exception are only two projects (No. 5 and 6), which explicitly use gender-sensitive forms, though they are technical in nature. The one project that is indirectly related to gender (No. 7, *Development directions of the farms in Slovenia*) combines gender-sensitive and non-sensitive forms.

The visual material is predominantly consistent of geographical maps of terrain, and plant breeding – there are no socially related visual representations.

### 6.2.2.2 Objectives and tasks

None of the projects contains hidden aspects involving gender roles, and no difference between men and women is stated in the tasks.

### 6.2.2.3 Methodology and theoretical background

None of the projects consistently applies gender sensitive methods, nor there seems to be a need for it – in all but one: No. 7, *Development directions of the farms in Slovenia*. Though this project refers to the gender sensitive theories and studies previously conducted, it does not apply such an approach in the conducted statistical and field research – gender is not used as a variable in research. This project in particular, could have incorporated gender into the developing of novel methodology in estimation of farming development potential, which was one of the project tasks.

### 6.2.2.4 Expected results

None of the projects conducted gender impact assessment, nor referred to gender sensitive stakeholders (e.g. organisation of women farmers). The two socially related projects (No. 2 and 7) would benefit from gender-sensitive impact assessment, while it seems irrelevant for the rest of the projects.

#### 6.2.2.5 Project team structure

On the basis of the list of *all* project reports issued in the year 2013, and the official biographies of the research staff at the Department of Agronomy, we could reconstruct following gender structure:

senior male researchers		junior male researchers		male research assistants	female research assistants
6	5	3	5	11	8

In the 24 projects concluded in the year 2013, there are 20 male and 18 female members of the staff, and there are no disparities in regard to hierarchical positions of the staff members (i.e. gender division of senior, junior and assistant researchers). In projects that were conducted jointly with other institutions, we analysed only gender structure of the researchers coming from the Department for the Agronomy. The examined project reports do not reveal the difference between permanent and temporary staff, and provide no data on the distribution of hours among the researchers. Hence we looked in the gender structure of the project coordinators: 9 were female and 7 male. Therefore, in overall research staff is balanced.

The only project that contains the gender dimension involved predominantly female team (9 out of 11), while the coordinator was male.

#### 6.3 MAPPING A GENDER DIMENSION IN EXISTING RESEARCH AT SSH UNIT

The analysed SSH research institution is the Fran Ramovš Institute of the Slovenian Language. The sample for the analysis includes all projects that were ongoing in the year 2013: 11 project and one research programme (i.e. 6-year research plan). Half of the projects are financed by the national Research Agency (ARRS) and conducted solely by the Institute of the Slovenian Language, while all but one project have been coordinated by the Institute.

#### The list of analysed projects:

1. Resarch project: Incorporation of the selected grammars by Slovenian authors into the international corpus CTLF and establishment of the portal of the Slovenian grammars and orthographical dictionaries (Ahačič)

Conducted solely by the Institute, funded by the national Research Agency, 4 years, 212,157€

The project deals with analysis and digitalisation of historical grammar books for Slovenian language. The main result would be online database on history of Slovene grammar books aimed at general and scientific public, and inclusion of seminal books into international database on grammar books. There is no gender-related content, no gender-sensitive, theory and methodology, no gender as a category in the results; majority of staff is female, temporary staff is male.

Suggestion for incorporating gender sensitive dimension: Project could have included examination when and how gender-sensitive language (e.g. female titles for male-dominated professions) entered the standard Slovenian grammar.

#### 2. Applied project (tender): Communication in Slovenian language (Amebis)

Coordinated by a Slovenian company (*Amebis* d.o.o.) and funded (through the Ministry of education and sports) by the European Social Fund, 5 years, 20,000€ (out of 3,028,822€)

The project includes technical improvements of Slovenian online dictionary and creation of an online toolkit for learning Slovenian. There is no gender-related content, no gender-sensitive, theory and methodology, no gender as a category in the results, language of the project application is not gender-sensitive. Only female researchers from the Institute participated,<sup>5</sup> and the joint project team was in majority female as well. Project objectives are relying on the range of European and national documents (recommendations of European Parliament, national strategies, etc. related to lifelong learning, literacy development, etc.). It is open to speculation to what extent these documents contain gender dimension, and whether it could have been applied to the subject of this project. There seem to be no need for gender dimension of this project, since it is very technical.

3. Research project: Origins and Transformations of Motifs and Symbols in Literature and Languages (Avsenik)

Conducted solely by the Institute, funded by the national Research Agency, 4 years, 129,078€

The part of the project is gender-related – it deals with the literature on love, passion and the symbol of seductive woman. However, the project outline, theoretical content and methodology do not refer to gender studies whatsoever. The only collected data disaggregated by sex/gender: list of male and female Byblical names – however, I would not find this as a "sign" of gender sensitivity. Visual representation of women (literary figures) will be collected, though it is not clear whether gender studies' methodology will be applied. It is not clear whether gender-sensitive theory and methodology will be used, since it is not openly stated (explained in detail below). The project team is female only.

<sup>5</sup> While the staff at the Institute is majority female – see the section on the Project team structure below.

Suggestion for incorporating gender sensitive dimension: The project's conclusions and outcomes of the research could be much more relevant for the contemporary time (and potentially could have greater social impact) had it been informed with gender-sensitive theories and methodology. For instance, if the part dealing with the literary figure of seductive women in literary tradition corresponds to the historical or present-time understanding of gender roles. The part of the project that deals with the standardisation of the new Slovenian translation of the Bible could benefit from gender-sensitive awareness, which is relevant since it expected to have large social impact.

4. Research cooperation project: Dialectal lexicon of the Serbian and Slovenian languages –comparative aspect (Bilaterala)

Bilateral project with Serbia, funded by the national Research Agency, 2 years, 3,000€

The project is comparing dialectal words from two languages in the realms of phonetics, morphology, word-formation, semantics, areal linguistics. Hypothetically there <u>could</u> be a gender dimension, but there is none. There is no gender-related content, no gender-sensitive, theory and methodology, no gender as a category in the results. Gender balance of staff, while the one temporary staff member is male.

Suggestion for incorporating gender sensitive dimension: within comparative analysis special attention could have been given to female forms of words, especially bearing in mind that present-day Slovenian language has much more gender-sensitive codification compared to Serbian.

5. Technical project (tender): Digitalisation of works of Slovenian Protestant Writers of 16<sup>th</sup> century (Digitalizacija)

Commissioned by the Pedagogical Institute, conducted solely by the Institute for Slovenian Language, ¹/₂ year, 5,110€

In this project there is nothing to analyse, since it is basically technical specification of the work that should be done. All the digitalised books from the 16<sup>th</sup> century were written by men. The language of the project is not gender-sensitive: generic male in plural, in the project where we could presume female researchers participated as well.

6. Technical project: Cultural Portal of Field and House Names (FLULED)

Conducted by the Institue, financed by the Slovenian-Austrian public partnership, 2 years, 28,208€

In this project there is nothing to analyse since it is very technical and to the practical point (make a list of field names, put it online with interactive map etc.). There is no theoretical perspective nor scientific methodology (only methodology in the sense of sequence of steps). Therefore, there is no gender-sensitive dimension.

7. Research/applied project: Material Cultural Heritage in Slovenian Dialects: A Geolinquistic Presentation (Škofic)

Conducted solely by the Institute, funded by the national Research Agency, 4 years, 317,051€

Within the project will be conducted geographical mapping of local Slovenian dialects, recording of the speech and taking illustrative photographs. The results will be presented within Slovenian Linguistic Atlas and online map, which should be available and used by the laymen and in schools. The project especially focuses on changes that took place in language in the last 50 years. There is no gender-related content, no gender-sensitive, theory and methodology, no gender as a category in the results. Twice more women than men, for both permanent and temporary staff.

Suggestion for incorporating gender sensitive dimension: Since the project deals with recording micro-local expressions connected to the rural domestic life, it could have incorporated gender dimension, which is always relevant when analysing private life (and public, for that matter). The project could have analysed, for instance, the growth (or lack thereof) of the female forms for certain professions, social roles, etc.

8. Research/applied project: Contemporary legal dictionary - part two (Snoj)

Conducted solely by the Institute, funded by the national Research Agency, 4 years, 217,609€

The projects aim is to update and add new legal expressions, in light of the changed legal surrounding and accession to the EU (adding EU-related terminology). There is no gender-related content, no gender-sensitive, theory and methodology, no gender as a category in the results. Overall gender balance of staff, but women are allocated significantly more working hours; temporary staff is female only. Overall gender balance of staff, but temporary staff is female only. Large disproportion - women allocated significantly more working hours.

Suggestion for incorporating gender sensitive dimension: the project could have included tracking/noting emergence of new female forms of legal offices, statuses, etc, or intentionally devising and/or adding female forms to already existing terminology. It is remarkable that there is no awareness (at least not explicit one) that adding female forms in legal terminology could have great social impact, especially bearing in mind that forms used in the dictionary strongly influence normative codification of legal language.

9. Applied project: Cultural heritage in collections between the Alps and the Karst (Zborzbirk)

Coordinated by the Institute, financed by the Slovenian-Italian public partnership, 2 <sup>1</sup>/<sub>2</sub> years, 999,725€ (for all partners)

The project collects immaterial (e.g. storytelling) and material (e.g. artefacts from the local laymen collectors) cultural heritage and presented in small exhibitions across the area. There is no gender-related content, no gender-sensitive, theory and methodology,

no gender as a category in the results. There is a modest gender-sensitive impact assessment because one of the questions within the project application form explicitly asked what impact will project have in regard of equal opportunity standard. The project writers stated that "women have decisive role in this project" (p. 89), since the project creators and coordinators are women, and furthermore, that project partners are principally equal opportunity employers.

Suggestion for incorporating gender sensitive dimension: One could imagine genderspecific project tasks/objectives, since the collected material and immaterial cultural heritage items mostly stem from domestic life, where gender component is significant.

10. Research/applied project: Theoretical and practical Aspects of Terminology and Terminography in Connection with Internet Terminological Resources (Žele)

Conducted solely by the Institute, funded by the national Research Agency, 4 years, 312,825€

The project deals with developing technical terminology in Slovenian language for particular technical fields (automatic control, botany, pharmacy, art history, legal history, process chemistry, skiing, engineering). There is no gender-related content, no gender-sensitive, theory and methodology, no gender as a category in the results. Gender imbalance of staff - large majority of women - and temporary staff is female only. However, the one male researcher that is employed got significantly more working hours than the average of female researchers.

Suggestion for incorporating gender sensitive dimension: Since the project aims at making definitions and Slovenian translation of international specialised terminology, it could have devoted special attention to devising/standardising female forms. This could have had lasting impact on society, since the project results are new normative dictionaries, which will set the use of terminology in the future.

11. Research/applied project: Western Slovenian ethnic border in the light of changing times (Občine)

Conducted solely by the Institute, financed by the local Municipalities, 4 years, 52,000€

The project involves historical, linguistic and anthropological research of the area where Slavic and Roman cultures merge (e.g. genealogies of prominent local families, history of kitchens in the area...). The project has no gender-related dimension. Female only staff.

The project continuation planned for 2015 obtains 1 (out of 9) research topic related to gender: "role of women in Vipava and Karst countryside over the time – how to achieve gender equality in the countryside" (p. 3). The project application is very short and gives no insight into theory and methodology which will be implemented, but the phrasing of the task suggests relying on gender-sensitive epistemology. However, this activity was not present in the project in the analysed year (2013).

12. Research programme: Slovenian language in synchronic and diachronic development

Conducted solely by the Institute, funded by the national Research Agency, 6 years, 3,951,085€

It is an overarching research programme, which joins together ongoing research in the fields of: contemporary codification of Slovenian language; technical terminology in Slovenian; Slovenian dialects; etymology within Slovenian language; history of Slovenian language; corpus of Slovenian language. There is no gender-related content, no gender-sensitive, theory and methodology, no gender as a category in the results. There could have been gender-sensitive tasks/objectives, had the project included gender-dimension – especially in the sections: contemporary Slovenian language, specialised/professional terminology in Slovenian. <sup>2</sup>/<sub>3</sub> of the permanent staff is female, and all 10 of temporary staff.

Suggestion for incorporating gender sensitive dimension: Since the research programme heavily relies on digitalisation and internet availability of its resources, it is created with clear intention to influence the every-day use of language. Had the programme included a gender dimension or content (e.g. standardisation of female forms of titles and professions, which is still emerging and is debated), it could have had envisioned emancipatory impact in the society (e.g. higher visibility of women in public and within professions).

#### 6.3.1 Content

None of the projects are specifically dedicated to gender, and only 2 are partially gender-related – *Avsenik*, *Občine* – while the latter one introduces gender component only in the continuation of the project that is outside the chosen time-frame of the sample. One project deals with female figures in literature, but the project proposal does not show awareness of gender-sensitive approach (*Avsenik*).

None of these projects disaggregates data by sex and gender, and generally it seems that researchers do not find sex/gender categories to be relevant for their studies. This is also visible in 6-year research programme of the whole Institute. In 4 (out of all 12) projects we could imagine how gender dimension could be easily applied to already existing project outline, while in one it seems almost indispensible (*Avsenik*).

Generally, the language of the projects is not gender-sensitive: they use male form as a generic denotation for both male and female, as well as male plural when referring to the project team (though they are in almost all cases majority female). Female forms of titles/professions are used only when referring to one particular female researcher. However, in the extensive Research programme this is not systematically applied throughout the text, and one project uses male forms even when referring to the exact women (*Amebis*).

<sup>&</sup>lt;sup>6</sup> E.g. Research programme, p. 13: "Metka Furlan, član uredniškega odbora".

The project application forms issued by the Slovenian Research Agency (ARRS) also use generic male form, though it is explained in the first footnote that "the expression 'project leader', written in the male form, is used as neutral and refers to both women and men." Though such an explanation should be considered an important step in the rise of gender-awareness in academia (and in general), it is not considered as the most favourable solution by the experts.<sup>7</sup>

In 3 projects that include visual representations (*Avsenik*, *Škofic*, *Zborzbirk*), there is no indication whether they will be gender-sensitive. Intention to use gender-sensitive approach is not stated, however, this does not necessarily mean that there is no general awareness, or that the images will be hetero-normative.

#### 6.3.2 Objectives and tasks

Only one project implies gender roles in the design of its objectives and tasks, none of the rest. This one project which deals with literature motifs and symbols (*Avsenik*), plans to analyse the literature figure of seductive women who are tempting men. Therefore the project implies certain traditional gender roles, as they are presented in the literature pieces, but it remains unclear whether the analysis will reify or deconstruct/criticise them.

Only one of the projects envisions gender-specific project tasks/objectives (*Občine*) – history of women in particular rural area – and none of the rest. While in 3 very technical projects (*Amebis, Digitalizacija, FLULED*) there seemed to be no need for a gender dimension, in another 3 projects (*Snoj, Zborzbirk, Žele*) and in the Research programme we could easily imagine a gender-focused tasks (e.g. devising or mapping development of female forms for professions/titles/statuses). However, this does not mean that the project results are necessarily significantly different from the ones that would be arrived at through gender specific objectives/tasks.

## 6.3.3 Methodology and theoretical background

Generally, none of the projects states to be using gender-sensitive epistemology, theories and methodology. In 3 very technical projects (*Amebis, Digitalizacija, FLULED*) this is completely understandable, since these projects have no socially related content. On the other hand it seems that all other projects would benefit, to certain extent, from applying concepts and methods from gender studies discipline, especially the 6-year Research programme.

In the one project that partially relates to gender (*Avsenik*), it is unclear whether gender-sensitive methodology is intended to be used. For instance, gender roles are mentioned in the analysis of fiction literature (which is the topic of the project), but the analysis is not openly criticising gender roles as such (therefore, the analysis might be conforming with, not questioning gender norms). Also, gender-sensitive theories and epistemology are not explicitly called upon, though certain statements indicate that such theories

<sup>&</sup>lt;sup>7</sup> See Guidelines for gender-sensitive use of language with practical examples on how to deconstruct some andro-centric grammatical rules (in Slovenian), available at:

http://www.idk.si/docs/spolno%20ob%C4%8Dutljiva%20raba%20jezika.pdf (2 March 2015).

could be in the back of the researcher's mind (e.g. "Major members of ancient pantheons and later societies were female. This fact shows that we must deal with the far reaching implications of female figures and characters for a patriarchal society by connecting the motif to narratives stemming from both religious and secular literature known throughout the world. Myths and folk traditions involving female characters sometimes address social issues such as the definition of gender roles, family structures and a general structure of meaning." *Avsenik*, p. 32).

Furthermore, in one of the projects (*Škofic*) we could imagine how a strand of the project containing a strong gender dimension could nicely fit already existing project outline. Since the project recognises that "life and use of words change due to extralinguistic factors in particular: words arise together with concepts that they name, and they disappear with the decline of the need to name various objects, relationships, activities" (*Škofic*, p. 26), and since it focuses on changes that took place in the last 50 years, the project could have analysed, for instance, the growth (or lack thereof) of the female forms for certain professions, social roles, etc.

In 2 projects which deal with updating and devising new specialised terminology (Snoj,  $\check{Z}ele$ ), gender-sensitive methodology seems to be most indispensible. Presumably such terminology would include female forms of professions, public posts/offices, statuses, etc. The lack of specific gender-sensitive methodology does not directly imply that female forms are not present in the final results.

## **6.3.4 Expected results**

None of the projects contains gender-sensitive priorities and outcomes, nor such impact assessment. In this regard, it should be noted that the design of the application form to a certain extent dictates its subject. It becomes obvious when the Slovenian application forms (created by the Slovenian Research Agency - ARRS) are compared to foreign or international ones. One of the analysed project applications (joint Italian-Slovenian partnership) contained question in regard of equal opportunity principle, but none of the Slovenian application forms contains question relating to impact of the project on gender equality, for instance. For instance, the Call for research programme of the Slovenian Research Agency requires applicant to esteem social impacts of their programme within the social development, which includes: higher quality of life, improvement of management and functioning of public administration, development of social activities and of the civil society. Social development dimension could have included some of gender related criteria (such as "rise of gender equality"). Such an approach could induce researchers to think about impact of their project on both genders and existing gender disbalance, and even to devise gender dimension within their projects.

When asked whether the projects' conclusions and outcomes of research be better utilized in real life provided gender dimension was included in it, in most cases we could reply – probably, or most likely, Yes. The suggestions for gender dimension is given at the end of each project summary above. In 3 cases (Ahačič, Škofic, Zborzbirk) this would imply additional activity (e.g. additional segment of the analysis) complementary to the existing project outline, while in another 2 cases (Avsenik, Bilaterala) adding gender dimension would require a completely new activity (e.g. type of analysis that was not

envisaged), which could fit into the existing project outline. Furthermore, when analysing 2 projects related to development of professional terminology (*Snoj*, *Žele*), as well as in the overall Research programme, the lack of gender dimension should not immediately imply complete absence of gender-sensitive terms in the final results. Only 3 very technical projects (*Amebis*, *Digitalizacija*, *FLULED*) genuinely do not need gender dimension.

## 6.3.5 Project team structure

In cases of the externally founded project (projects coordinated outside the test institution, i.e. *Amebis*) and the bilateral projects (*Bilaterala*, *FLULED*) we noted only projects members coming from the test institution, not the overall project teams.

	No. of permanent	No. of permanent			share of working	share of working
	М	F	No. of	No. of	hours for	hours for
Name of the	researcher	researcher	temp M	temp F	M staff in	F staff in
project	S	S	staff	staff	%	%
Ahačič	1	6	1	0	27,89	72,11
Amebis	0	3	0	0	0,00	100,00
Avsenik	0	2	0	0	0,00	100,00
Bilaterala RS	1	2	1	0	NA	
Digitalizacija	NA					
FLULED	NA					
Škofic	2	4	1	2	15,89	84,11
Snoj	2	1	0	2	42,91	57,09
ZBORZBIRK	NA					
Žele	1	5	0	2	27,80	72,20
Program	5	16	0	10	15,19	84,81
Občine	0	6	0	0	NA	

Among the analysed projects, 3 do not contain list of staff (*Digitalizacija*, *FLULED*, *Zborzbirk*), while other 2 (*Bilaterala*, *Občine*) lack share of working hours. Nevertheless, the pattern is clear in practically all of the projects: Overall female majority, both among the permanent and temporary staff (including young researchers). The share is approximately 2/3 female and 1/3 male. This is reflected in the division of working hours as well.

Such gender ratio is congruent with the overall structure of the Institute of the Slovenian Language, at least in regard of senior researchers, while gender ratio among junior researchers (and technical staff) is more balanced:

senior M researchers	senior F researchers	juinior M researchers and technical staff	juinior F researchers and technical staff
7	22	7	10
21%	79%	41%	59%

There seems to be no difference in gender-sensitivity among the projects led by men or women.

## 6.4 COMPARISON BETWEEN SSH AND STEM DEPARTMENTS/UNITS

The starkest difference between the test STEM and SSH institution portfolios lays in fact that many agronomy-related projects are very applicable and technical in nature that they have no societal dimension. Nevertheless, the presence of gender related content and methodology is scarce in both test institutions.

In case of STEM curriculum (29 courses) and research (17 projects), only one course/project obtains indirectly gender related content, while two additional courses are vaguely related to gender. Similarly, only 1 (out of 12) SSH project is partially gender related, and one introduced gender related content in the continuation of the project. In additional 4 projects we could imagine how gender dimension could be easily applied to already existing project outline.

Regarding the question through which topics/themes gender finds its way into the project/curriculum content, there is a commonality for both STEM and SSH institutions: gender is understood as "women's issue". Mentioning women is the only way that gender dimension is expressed in curriculum or project description, in other words, the concept of gender is never put into relation with men or gender-nonconforming individuals.

However, mentioning women in curriculum/project description does not necessarily mean adoption of feminist theories and epistemologies, and could instead indicate a "hidden curriculum" which reifies gender-normative and stereotypical roles. From this perspective, it is informative to compare the only two gender related projects, each one from one of two test institutions. Paradoxically (or not), the STEM project (*Development directions of the farms in Slovenia*) is based on gender-sensitive theoretical background (gender-sensitive approach within agrarian anthropology), while the SSH project (*Origins and Transformations of Motifs and Symbols in Literature and Languages*) seems to reproduce traditional hetero-normative roles (e.g. by analysing symbol of seductive woman in the literature about love and passion). Therefore, humanities-dealing institutions should not be regarded as inherently more open to gender-sensitive approach than technology-orientated ones.

It should be further mentioned that invoking gender-sensitive theoretical background and methodology, does not necessarily mean that such conceptual and methodological apparatus will be consistently applied throughout the project. This is visible in the one STEM project indirectly related to gender: despite citing gender-sensitive literature, the project fails/avoids to include gender variable in the collection of the concrete data, which hence would allow gender-sensitive analysis.

Regarding the language of the course description, and project applications/reports, the gender-sensitive language is rarity rather than norm, and there is no significant difference among the two test institutions.

We could not detect any hidden or overt aspect involving gender roles and stereotypes in the objectives of the presented curriculum/projects of the STEM institution, and only in the one gender-related project of the SSH institution. In various projects, at both institutions, we found that inclusion of gender dimension into project objectives and tasks would enrich the research. Though in all cases this would be an added value, only in cases of SSH projects gender dimension seemed to be indispensable.

The same conclusion could be made regarding the question whether project's conclusions and outcomes of the research would be better utilized in real life provided gender dimension was included in it — while in some STEM projects this would be an added value, for most SSH projects including gender dimension seems necessary for their utilization in real life.

Regarding the gender structure of the staff, the analysis could be summarised as follows: the STEM teaching staff is majority male, STEM students are majority female, STEM research staff is balanced, and SHH research staff is majority female. We could not detect significant hierarchical differences within the gender structure of the institutions, i.e. disparity/balance was equally present among senior and junior staff members.

Though the two gender-related research projects were coordinated by men, the gender content was provided by female team members. Similarly, the only course within the STEM curriculum which evidently contains gender dimension is thought by a female professor.

# 6.5 MAIN CONCLUSION ON MAPPING ON GENDER PERSPECTIVE IN RESEARCH AND TEACHING

We should be aware that project applications and reports do not reveal all hidden aspects of the conduct of generally socially related research. Maybe precisely the lack of awareness for potential gender dimension in a research hints the superficial understanding and implied stereotyped notion of gender roles.

This poses question where is the role of gender sensitive approach in technical research.

Another aspect which should be taken into consideration when analysing research projects are the requirements and the language of the project application forms.

For instance, if a form would use gender-sensitive forms throughout the text of the application form, this might induce more use of gender-sensitive forms in the project applications, so the experts suggest.

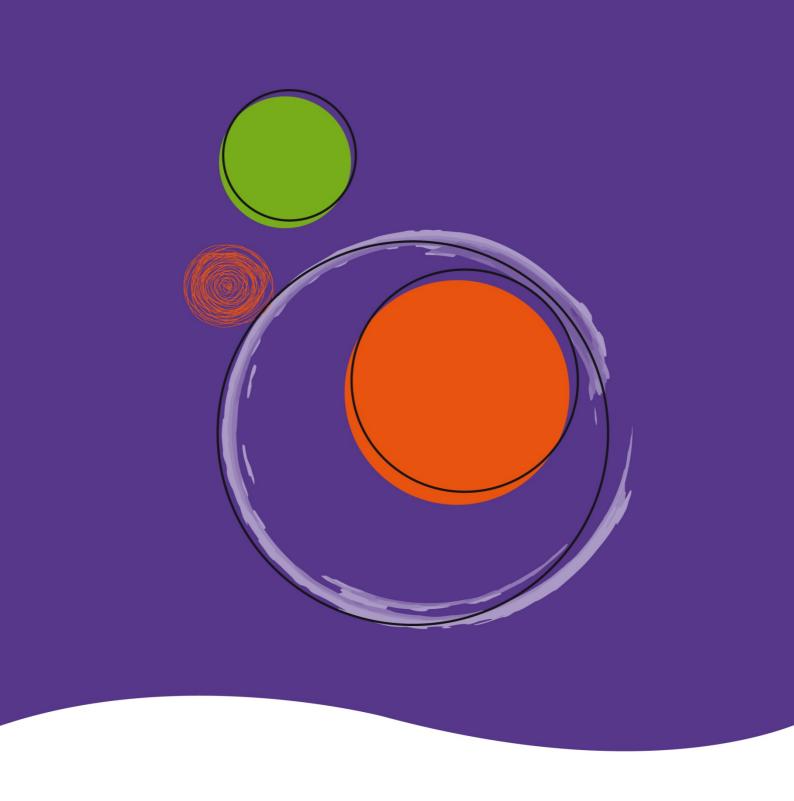
Nevertheless, more importantly, the application procedure could require fulfilment of some of the gender related criteria (e.g. "rise of gender equality"). Such an approach could induce researchers to think about impact of their project on both genders, and reassess existing gender inequalities. Eventually, it could inspire project writers to include a gender dimension into their projects.

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