



# **Global Economics and Management**

Bachelor's Degree Program (BA)

# Disclaimer

As of September 1, 2014 the School of Engineering and Science and the School of Humanities and Social Sciences have been replaced by the Focus Areas Health, Mobility and Diversity. Handbooks and policies might still refer to the old structure of Schools.

If this is the case, references to the School of Engineering and Science include courses offered within the following disciplines:

- Electrical Engineering and Computer Science
- Life Sciences
- Logistics
- Mathematical Sciences
- Natural and Environmental Sciences

References to the School of Humanities and Social Sciences include courses offered within the following disciplines:

- Economics and Management
- History
- Humanities
- Law
- Psychology
- Social Sciences
- Statistics and Methods

Revision	Date	Reason for Revision
	20.06.2011	Change of courses from lectures to seminars and vice versa. Change of course titles and course descriptions. Added members to faculty list.
	20.12.2012	Social Entrepreneurship from lecture to Seminar
	04.07.2013	Order of courses changed. "Organization" from Spring 1 to Fall 2 "Marketing" from Fall 2 to Spring 1
	07.08.2013	Replacing the courses GEM Seminar I and II with the course "Global Leadership"
	26.08.2014	Cover updated, disclaimer included.

# Accreditation of Jacobs University

Jacobs University has been re-accredited by the German Council of Science and Humanities (Wissenschaftsrat) for the duration of 10 years in 2008.

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This table is subject to change. Students are required to check the online course catalogue for changes each semester.
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Global Economics and Management						
	Туре	Course Number	Term	Year	Semester	Credits
CORE COMPONENT I						05.0
(GLOBAL ECONOMICS AND MANAGEMENT)						<u>85.0</u>
Module I: Analyzing Economic Systems						
Microeconomics	Lecture	032 101	Fall	1	I	5.0
Environmental & Resource Economics	Seminar	040 122	Spring	1	II	5.0
International Economics	Seminar	910 301	Fall	2	III	5,0
Macroeconomics	Lecture	032 102	Spring	2	IV	5.0
Development Economics	Seminar	930 112	Fall	3	V	5.0
Module II: International Management						
Fundamentals of International Business	Seminar	032 201	Fall	1	I	5.0
Marketing	Seminar	930 352	Spring	1	II	5.0
Organization	Seminar	930 211	Fall	2	III	5.0
Finance	Seminar	930 241	Spring	2	IV	5.0
Global Leadership	Seminar	032 311	Fall	3	V	5.0
Managerial & Financial Accounting	Lecture	930 221	Spring	3	VI	5.0
Module III: Governance, Social Structure and Communication						
Society and Economy	Lecture	032 111	Fall	1	I	5.0
Social Entrepreneurship	Seminar	032 112	Spring	1	П	5.0
Global Communication	Seminar	940 xxx	Fall	2	Ш	5,0
Public Management and Public Policy	Seminar	970 202	Spring	2	IV	5,0
Introduction to Law	Lecture	970 132	Fall	3	V	5.0
Modern Economic History since the Industrial Revolution	Seminar	840 202	Spring	3	VI	5,0
CORE COMPONENT II (METHODS AND STATISTICS)						<u>30.0</u>
Module I: Practical Scholarly and Management Skills						
Academic and Professional Skills	Modules	990 100	Fall	1	1	2.5
Bachelor Thesis Seminar	Seminar	990 301	Spring	3	VI	7.5
Module II: Research Methods and Techniques			-			
Introduction to Empirical Research and Research Design	Lecture	990 111	Fall	1	I	5.0
Statistical Concepts and Data Analysis	Lecture/Lab	990 121	Spring	1	11	5.0
Module III: Research Concepts and Methodologies						
Students choose two out of the following courses: The Logic of Comparative Research, Secondary Data Analysis, Econometrics, Meta-Analysis, Structural Equation Modeling, Qualitative Research: Methods and Methodolody, Decision Making*1						10.0
COMPONENT III (SHSS ELECTIVES AND LANGUAGE COURSES))						<u>35.0</u>
<ul> <li>4-5 courses in the School of Humanities and Social Sciences</li> <li>4-6 language courses (á 2.5 credit points): 4 German courses are mandatory, German students take other language courses</li> </ul>						
COMPONENT IV (TRANSDISCIPLINARY COURSES) 6 transdisciplinary courses (Engineering and Science Courses or University Studies Courses)						<u>30.0</u>
1- 2 Internships		1	Summer	1, 2		0.0
Total Credits for the BA in		I	1	1	1	180

\*1 – Courses within Core Component II - Module III (Research Concepts and Methodologies) may vary according to demand and available capacities.

Jacobs University Bremen reserves the right to substitute courses by replacements and/or reduce the number of mandatory/mandatory elective courses offered.

## I. Concept

This section briefly introduces the philosophy and structure of the GEM curriculum.

## 1. Philosophy

At the beginning of the 21<sup>st</sup> century the world is facing complex economic challenges. These challenges include global financial and economic crises, environmental devastation and catastrophes, poverty and inequality. Successful management of these challenges will have to come from many different institutions, especially from innovative national and multinational firms, from governments and from international organizations. Economic decisions made in these institutions are closely related to societies' preferences, to the functioning of political systems and to efficient communication and cooperation. Successfully confronting economic challenges requires not only knowledge from the two academic disciplines of management and economics, but an interdisciplinary education that incorporates contributions from many other disciplines. The curriculum of the Global Economics and Management program responds to these demands by combining modules in economics and management with courses in history, political science, sociology and communication science as well as courses in engineering and the natural sciences. All these disciplines have proven to be of crucial importance for the understanding of economic core concepts such as efficiency, equity and human welfare.

The GEM curriculum not only prepares students intellectually for the challenges of cooperation across disciplinary borders, but also socially and culturally for the challenges of working in cross-cultural and international environments. Currently, students from about 100 countries are enrolled at Jacobs University. They represent a wide range of experiences and concerns from different regions, cultures and traditions. Students live and work together on an English-speaking campus. In their daily lives, in extra-curricular activities as well as in their studies, they define and re-define ideas and concepts for responsible leadership and sustainable development in the 21<sup>st</sup> century.

Besides a transdisciplinary curriculum and a cross-cultural learning experience, the third dimension of the BA in Global Economics and Management is an orientation towards practical applicability of knowledge. Most courses are taught in a problem-oriented style. Students are encouraged to do two internships. Since experience shows that quite a few international students from Jacobs University become interested in their host country Germany and, in a later phase of their studies, in European and especially German labor markets, students are expected to acquire basic German language skills in their first two years of study. For German students four courses in a foreign language are mandatory.

#### 2. Structure

The GEM curriculum is a three-year program leading to a Bachelor of Arts in Global Economics and Management. The course work consists of four components:

- Core Component I (Global Economics and Management): Seventeen mandatory courses introduce students to basic issues and theories in economics (Module I) and management (Module II). Other courses focus on political, social, legal and historical framework conditions for economic challenges and decisions (Module III). Core Component II (Methods and Statistics): Management, economics and social sciences employ a wide variety of methodological approaches and research methods. The six mandatory courses in this core component of the GEM curriculum familiarize students with these methods and provide training in their use and application. They also address practical management skills and techniques.
- Component III (SHSS Electives and Language Courses): Students choose four to five elective courses from the many courses offered in the School of Humanities and Social Sciences. This gives them the opportunity to complement or expend knowledge acquired in Core Component I of the curriculum, especially in political science, sociology, communication science

and history. Additionally, students take four to six language courses. Four of these courses focus on mastery of German. For German students four courses in a foreign language are mandatory.

 Component IV (Transdisciplinary Courses): The GEM curriculum builds two bridges to engineering and science. Students take elective courses from engineering and science as well as so-called University Studies Courses (USCs). University Studies Courses are a specialty of Jacobs University. Transdisciplinarity is the focal point of these courses; they are taught jointly by professors of different disciplines. In total students must take six transdisciplinary courses during the course of their studies.

## 3. Areas of Specialization

There are two ways to use the SHSS and SES Electives of Components III and IV of the GEM curriculum. Following Anglo-Saxon traditions of undergraduate studies, these electives can be used for diving into diverse fields of interest that are not directly related to economics or management. Another way of using these elective courses is to focus on specific interdisciplinary areas of specialization. Students may want to choose up to five Electives from the SHSS and up to six Transdisciplinary Electives to build areas of specialization such as:

- International Political History
- Energy and Environmental Policy
- Quantitative Methods
- International Logistics
- Intercultural Behavior

Additional information on such self-defined areas of specialization can be found in the Appendix *Areas of Specialization*.

## **II.** Organization

This section provides information on the organizational principles and procedures of the GEM curriculum.

## 1. Formal requirements

A minimum of 36 courses lead to a BA degree in Global Economics and Management after three years (i.e., six semesters). Most courses count 5.0 ECTS credit points. Hence, 180 ECTS credit points are needed to obtain the BA degree. Jacobs University's grading scheme compares with other grading systems as follows:

Jacobs University	European Credit Transfer System	American	American Numerical	Jacobs Univ. GPA
Numerical Value	(ECTS)	Grade	Value	
1.0	Excellent (A)	A+	4.33	1.00-1.16
1.33 1.67	Very Good (B)	A A-	4.00 3.67	1.17 – 1.83
2.00 2.33	Good (C)	B+ B	3.33 3.00	1.84 – 2.49
2.67 3.00 3.33	Satisfactory (D)	B- C+ C	2.67 2.33 2.00	2.50 - 3.49
3.67 4.00 4.33	Sufficient (E)	C- D+ D	1.67 1.33 1.00	3.50 - 4.49
4.67 5.00	Failing (F)	D- F	0.67 0.00	4.50 - 5.00

Table 2: Jacobs University Grading Scheme

Further information on grading regulations can be found on the website of Jacobs University Bremen (Academic Policies).

The BA Global Economics and Management cannot be a component of a double major or a combined major.

Furthermore, all students are encouraged to complete two internships, normally to be accomplished between the first and the second year of study and the second and the third year. The internships, one of which is mandatory for completing the BA, must last at least two to three consecutive months. Each student has to file a report with the Career Services Center shortly after completion. Information about the internships will be listed on the university transcript. For more information on internships see <u>http://www.jacobs-university.de/career-services/internship</u>.

Student performance is assessed within the courses taken. There are no separate final examinations. The requirements for each course are flexible and are specified in advance. For introductory courses, the usual evaluation format consists of a mid-term and a final exam. In more advanced courses, it 10

may include oral presentations, classroom discussions, case studies, position papers or a research paper. The BA thesis is also written and evaluated as part of a specific course.

Students are informed about their grades regularly and quickly. Through an electronic system (CampusNet) they have access to the grades of all courses taken and of their grade point average for each semester. Students also receive a university transcript with the final degree. This detailed record is particularly important for students who apply to study programs abroad (e.g. graduate school).

## 2. Organization of the coursework

The sequence of the GEM courses leads students from more general to more specific subjects. Each course lasts one semester (14 weeks). Students usually meet twice a week for sessions of 75 minutes. The course content is largely pre-defined by the curriculum. Introductory courses for each module are generally offered as lectures and more advanced courses as seminars. Lab classes constitute an integral element of the methods courses.

Participation in a course requires electronic registration in the preceding semester. Courses can be dropped or added during the first two weeks of a semester. After this deadline, participation is mandatory. Information provided in CampusNet on all courses offered includes a short summary of the course content, substantive and formal course requirements, and a syllabus detailing reading material, forms of examination, substantial foci, thematic sequences as well as learning targets. Moreover, for each course an online discussion forum is available, in which participants can further deliberate on class topics or access additional teaching materials. All students need laptops They will have access to a wireless network that allows for flexible use of electronic information resources inside and outside the classroom.

#### 3. Faculty

The GEM curriculum is taught by a faculty with different disciplinary backgrounds. The professors are not separated into different departments, such as economics, management, political science, etc., but form integrated faculties in the two schools, the School of Humanities and Social Sciences (SHSS) and the School of Engineering and Science (SES). Thus, the transdisciplinary character of the program also extends to the professors teaching it. The GEM curriculum will be taught primarily, but not exclusively, by the following Professors:

- Prof. Dr. Julia Bendul, Professor of Network Optimization in Production Logistics
- Prof. Dr. Matthijs Bogaards, Professor of Political Science
- Prof. Dr. Werner Bergholz, Professor Electrical Engineering
- Prof. Dr. Gert Brunekreeft, Professor of Energy Economics
- Prof. Dr. Adele Diederich, Professor of Psychology
- Prof. Dr. Asvin Goel, Professor of International Logistics (Distribution Logistics)
- Prof. Dr. Michael Graff, Professor of Development Economics
- Prof. Dr. Herbert Jäger, Professor of Computational Sciences
- Prof. Dr. Ulrich Kühnen, Professor of Psychology
- Prof. Dr. Christoph Lattemann, Professor of Business Administration and Information Management
- Prof. Dr. Peter Ludes, Professor of Mass Communication
- Prof. Dr. Guido Möllering, Professor of Organization and Management
- Prof. Dr. Marion G. Müller, Professor of Mass Communication
- Prof. Dr. Steven Ney, Professor of Policy Science and Social Entrepreneurship
- Marcel Oliver, PhD, Professor of Mathematics
- Prof. Dr. Georg Ress, Professor of International Law
- Prof. Dr. Christian Stamov-Rossnagel, Professor of Organizational Behaviour
- Prof. Dr. Achim Schlüter, Professor of Social Systems and Ecological Economics

- Prof. Dr. Klaus Schoemann, Adjunct Professor of Sociology
- Prof. Dr. Rainer Tetzlaff, Professor of African and Development Studies
- Prof. Dr. Colin Vance, Professor of Quantitative Methods
- Prof. Dr. Sven Voelpel, Professor of Business Administration
- Prof. Dr. Welf Werner, Professor of International Economics
- Prof. Dr. Song Yan, Professor of Psychology

Faculty members who teach methods courses are:

- Prof. Dr. Klaus Boehnke, Professor of Social Science Methodology
- Dr. Karina De Santis, University Lecturer in Statistics and Methods
- Dr. Katja Hanke, University Lecturer for Cross-Cultural Psychology and its Methods
- Dr. Özen Odag, University Lecturer in Methods
- Prof. Dr. Margrit Schreier, Professor of Empirical Methods in the Humanities and Social Sciences
- Prof. Dr. Adalbert F. X. Wilhelm, Professor of Statistics

## **III.** Content

This section describes the content of each of the four GEM components in detail.

## 1. Core Component I (Global Economics and Management)

## 1.1 Structure

The purpose of this component is to give students a solid grounding in the most important theories, concepts and findings in economics and management as well as in disciplines that are relevant for understanding the political, legal, social and historical dimensions of economic challenges. The goal is not to make students specialists in either economics or management, but to teach them about the interactions between firms, markets and governments and their many linkages to social and political processes. Only a thorough understanding of the many different dimensions of economic problems and issues and their interconnectedness on the national and international level will lead to responsible decisions and sustainable outcomes.

Module I (Analyzing Economic Systems) focuses on economic challenges faced mainly but not exclusively by governmental institutions. Courses in micro- and macroeconomics lay foundations for subsequent courses of a more applied and problem-oriented character. The latter courses focus on topics such as the integration of states into the global economy, specific challenges of developing countries and the management of environment and resources.

Module II (International Management) enables students to acquire knowledge that is primarily used in order to manage firms. An Introduction to Fundamentals of International Business is followed by courses on topics such as Finance, Accounting, Organization and Marketing. Most courses of module II employ case studies.

Module III (Governance, Social Structure and Communication) is concerned with some of the most important framework conditions of economic problems and issues. Courses focus on the many interactions between society and economy; compare decision processes in various political systems around the world, examine patterns and modes of mass communication, and analyze legal institutions as well as the role that social, political and economic forces played in the rise of North America and Western Europe. A course on Social Entrepreneurship demonstrates how seemingly competing social and economic interests can be integrated into a common cause.

## **1.2 Modules and Courses**

Module I: Analyzing Economic Systems

Semester:	I - VI
Frequency:	yearly
Credits:	25 ECTS

#### 032 101 Microeconomics

Туре:	Lecture
Semester:	Fall 1 / Semester I
Credit Points:	5 ECTS

The study of economics concerns itself with the allocation of scarce resources and the associated implications for efficiency, equity, and human welfare. This course introduces the field of microeconomics, focusing specifically on the role of markets in facilitating exchange between the individual households, firms, and government institutions that make up the economy. Topics addressed include consumer theory, the behavior of firms, competition, and monopoly. The course applies the theoretical concepts covered to contemporary policy questions, such as when government intervention is justified to correct market imperfections.

Students who successfully complete this course will not receive credits towards the 180 ECTS-credits required for their BA degree from the course *Introduction to Economics* (930 201). These courses are mutually exclusive due to comparable content.

## 040 122 Environmental & Resource Economics

Type:SeminarSemester:Spring 1 / Semester IICredit Points:5 ECTS

This course will cover the application of theoretical and empirical economics to the analysis of environmental and resource management issues. Specific topics will include global climate change, the relation between international trade and the environment, energy use, and the extraction of exhaustible and non-exhaustible resources. Cross-cutting these topics will be an emphasis on how economic analysis can contribute to contemporary policy debates.

## 910 301 International Economics

Туре:	Seminar
Semester:	Fall 2, Semester III
Credit Points:	5 ECTS

The economic space of the market and the political space of the nation state have never coincided perfectly and the process of globalization has increased the gap. This seminar looks at the economic factors driving this process, in particular at the determinants of international trade, international factor movements, and the foreign exchange market. It examines the emergence of multinational corporations, and analyzes their role in international markets and national politics. It also considers the interaction between global markets and national development.

## 032 102 Macroeconomics

Туре:	Lecture
Semester:	Spring 2 / Semester IV
Credit Points:	5 ECTS

This course provides an introduction to the analysis of aggregate output, employment and economic growth and their relationship to the policy issues of unemployment, inflation and the balance of payments. Other topics include: national accounting; aggregate income and expenditure analysis; macroeconomic models of income determination; consumption, saving and investment functions; the role of money and banks; interactions between goods and money markets in equilibrium and disequilibrium situations.

Students who successfully complete this course will not receive credits towards the 180 ECTS-credits required for their BA degree from the course *Introduction to Economics* (930 201). These courses are mutually exclusive due to comparable content.

## 930 112 Development Economics

Туре:	Seminar
Semester:	Fall 3 / Semester V
Credit Points:	5 ECTS

Development Economics touches directly, but also indirectly upon economics, social sciences and history. The course aims at (a) providing students with an overview of some of the major ideas in development thinking; (b) analyzing the economic problems of developing countries, especially problems related to slow growth, high poverty rates, high income inequality, and chronic external crises; and (c) discussing strategies for accelerating growth, attaining sustainable development, reducing poverty and income inequality, and decreasing external imbalances.

## Module II: International Management

Semester:	I - VI
Frequency:	yearly
Credits:	30 ECTS

## 032 201 Fundamentals of International Business

Туре:	Seminar
Semester:	Fall 1 / Semester I

## Credit Points: 5 ECTS

This course provides the basics to make informed and effective business decisions in today's global economy. It focuses on the domains of business such as international strategy and organizational structure, selecting and managing entry modes, developing and marketing products internationally as well as managing international operations. Aspects of globalization, cross-cultural businesses, politics and law in business, economic systems and development, international trade, and international financial markets will also be covered.

Students who successfully complete this course will not receive credits towards the 180 ECTS-credits required for their BA degree from the course *Firms and Markets* (930 312). These courses are mutually exclusive due to comparable content.

#### 930 352 Marketing

Туре:	Seminar
Semester:	Spring1 / Semester II
Credit Points:	5 ECTS

Marketing covers a set of diverse practices that connect firms to their relevant markets. This course introduces the principal marketing decision-making areas known as the four "Ps": product, price, promotion and place. Actual decisions on these parameters depend on how firms communicate with, and learn from, their customers who may be private consumers (B2C) or other firms (B2B) buying goods as well as services. Students learn that marketing strategies are also shaped by how firms' marketing is integrated with other business functions, by the behaviors of competitors and partner firms, and by the values, needs, and standards in the firms' environment. Marketing plays a key role in firms' internationalization strategies and, building on many practical examples, the course familiarizes students with issues around foreign market entry, globalization and localization of marketing policies, and coordination within multinationals.

## 930 211 Organization

Туре:	Seminar
Semester:	Fall 2 / Semester III
Credit Points:	5 ECTS

Organizing is a key management activity and organizations are both the context and the object of managerial work. This course introduces students to fundamental ideas on why organizations exist, how people behave in organizations, how organizations can be designed and changed strategically, and how they evolve in their environments. Managers also need to build and maintain inter-organizational relationships in projects, alliances, networks, supply chains and partnerships with various other organizations and in increasingly international contexts. The course covers classical principles of the division and integration of labor within and across firms. It also fosters a critical perspective on organizing as an ongoing creative, collective and contested practice that entails limitations for managerial control. Through project work, students learn what it means to be part of, and responsible for, contemporary organizations.

## 930 241 Finance

Туре:	Seminar
Semester:	Spring 2 / Semester IV
Credit Points:	5 ECTS

Corporate Finance is crucial to the growth of all firms. This is even more so in a global environment that is characterized by liquidity shortages and turmoil in capital markets.

This course will provide students with the basics of corporate finance. It will introduce to the analytical tools and the necessary techniques for the financial management of a firm. Students will discuss these techniques in various contexts: the modern theories of corporate finance, corporate governance, value and capital budgeting, risk and return, capital structure and dividend policy, finance decisions as well as long term and short term financial planning.

## 032 311 Global Leadership

Туре:	Seminar
Semester:	Fall 3 / Semester V
Credit Points:	5 ECTS

Leadership is an essential instrument for managing the increasingly diverse workforce in a globalized world. Tailored knowledge on how to make use of this challenge and turn it into an asset is of major importance for scholars, practitioners and managers in almost all professions around the world. In line with these demands, this course offers interdisciplinary approaches and empirical findings on successful leadership and explicitly takes into account the impact that different cultures as well as workforce diversity have on the leadership outcomes. The course covers a variety of theoretical and applied topics and takes account of recent human resource management as well as corporate and societal challenges to private, public and non-governmental organizations. Besides covering historical trends, new leadership paradigms as well as effective cross-cultural applications, particular emphasis is given to the effective management of diverse teams and multicultural workforces. The course's theories are grounded in psychological, behavioral and cultural theories that are applied to specific organizational challenges including those being posed by internationalization and multiculturalism.

## 930 221 Managerial & Financial Accounting

Туре:	Lecture
Semester:	Spring 3 / Semester VI
Credit Points:	5 ECTS

Physical movements of goods leave a financial trail. Accounting is the art of capturing this trail and transforming it into meaningful information for management and other stakeholders. This course provides an introduction to accounting principles. It focuses on measuring the financial position and performance of a firm, on reporting cash flows and on analyzing financial statements. It consists of modules on strategic and operative planning as well as on controlling (target setting, feed-back and feed-forward control, balanced

scorecard). Cost allocation, full costing and cost-volume-profit analysis are the focus of managerial accounting.

Module III: Governance, Social Structure and Communication

Semester:	I - VI
Frequency:	yearly
Credits:	30 ECTS

## 032 111 Society and Economy

Туре:	Lecture
Semester:	Fall 1 / Semester I
Credit Points:	5 ECTS

Starting from the observation that all economic activities are embedded in social relations, this lecture studies economic phenomena as intertwined with social and political processes. It enriches a strictly economic understanding of markets and economic life by bringing in dimensions of power, social inequality, status and domination. At the micro level we look at the interaction between utility-maximization and other motivational factors, such as norms and values. At the macro level we examine the role of political institutions as well as the role of culture in economic life. One of the key challenges addressed is how to combine economic prosperity with sustainable social and environmental development.

## 032 112 Social Entrepreneurship

Туре:	Seminar
Semester:	Spring 1 / Semester II
Credit Points:	5 ECTS

Social entrepreneurship - the practice of solving social problems by innovation and entrepreneurship - is a rapidly growing field. This is true both for the practice of social entrepreneurship as well as the study of social entrepreneurs. This course aims to provide students with an overview of what we know as well as an opportunity to explore what we still have to learn about social entrepreneurship and social innovation. In particular, the course will (a) review the major approaches, theories and concepts surrounding social entrepreneurship, (b) introduce students to a range of analytical tools from a spectrum of disciplines for understanding, analysing and assessing social entrepreneurship, and (c) enable them to explore concepts and tools by applying them to real-life case studies and examples of social entrepreneurship.

#### 940 xxx Global Communication

Туре:	Seminar
Semester:	Fall 2, Semester III
Credit Points:	5 ECTS

Understanding *Global Communication* is a prerequisite for any form of interaction and exchange between diverse nations, cultures, societies and their economic agents. This seminar covers all levels of mediated communication – from local to regional, from national to global forms and contents of communication. The seminar further introduces four current trends in global communication: globalization, visualization, hybridization, and convergence of both, interpersonal and mass media, covering all types of media from print to radio, from TV to the Internet, from mobile phones to viral videos. While covering all major world regions, and their media systems and structures, a particular focus will be put on the diversity and synergy of global media and communication in their current political and economic contexts.

#### 970 202 Public Management and Public Policy

Туре:	Seminar
Semester:	Spring 2, Semester IV
Credit Points:	5 ECTS

This course introduces the student to the theory and practice of public management and public policy analysis. On the one hand, the course will

provide the student with an overview of what public management is today, how it has changed in the past 30 or so years and where it is going. Not only will the course expose students to contemporary thinking in public management, by looking at the way public managers over the world deal with today's policy challanges, the course will also allow students to apply this knowledge to real cases. On the other hand, the course exposes students to the conceptual and methodological tool-box of contemporary policy analysis and, by drawing on real-life examples from a variety of policy domains, shows students how academic and professional policy analysts bring this tool-box to bear on issues of public management and public policy. Additionally, the course will show how different socio-cultural, political or disciplinary frames of references shape policy analysis and how policy analysts can use these frames to sharpen their understanding of the way public institutions are managed.

#### 970 132 Introduction to Law

Туре:	Lecture
Semester:	Fall 3 / Semester V
Credit Points:	5 ECTS

This course introduces students to law, a socio-political phenomenon that operates at the local, national and international levels of all societies in the world and also as a transnational order. The course covers topics such as the definitions and sources of law; different legal systems; the distinction between the various branches of law (e.g. constitutional law, criminal law, private law) in legal systems and their principal characteristics; the basic principles of public and private international law; the concepts of legal interpretation; the development of law called "lex mercatoria" and "global law"; and an introduction to comparative law with special emphasis on projects to harmonize law (in particular the law of commerce). The question of law and justice will be dealt with by referring to the principle of constitutionalism, international human rights law and selected approaches in modern jurisprudence.

## 840 202 Modern Economic History since the Industrial Revolution

Type:SeminarSemester:Spring 3 / Semester VICredit Points:5 ECTS

The major economic transformation of the world that started in 18<sup>th</sup>-century England constitutes the core concern of this lecture. Since the field of modern economic history has witnessed a major transformation, with a significant expansion of both its subject area and its theoretical foundations, the classical process of the Industrial Revolution in technology and production will form an important starting point, but will not any more exclusively define this field. Attention will also be given to the preconditions of industrial growth in the agricultural and commercial economy of early-modern Europe. The history of economic processes has begun to include not just production, but also trade and consumption, as modern societies are increasingly defined as "consumer societies". In addition, the "cultural turn" has had its impact also on economic history, leading to a new emphasis on economic action, economic ideology, and the cultural implications of economic behavior. The seminar provides an overview over both classical and new topics in modern economic history, from early-modern beginnings to postwar economies after 1945 and issues of economic "globalization", and at the same time introduces students to different ways of conceptualizing past economies. The chief interest lies on Western economies, but their interrelations with local and dependent economies on the fringes of the Western world are also considered.

## 2. Core Component II (Methods and Statistics)

## 2.1 Structure

While Core Component I (Global Economics and Management) combines modules from economics, management and neighboring disciplines, Core Component II (Methods and Statistics) focuses on methodological approaches and research techniques. The aim is to enable students to design, conduct, evaluate and present empirical research in economics, management and the 24 social sciences. To this end, the courses provide students with a sound understanding of the concepts and assumptions behind specific methods and research techniques, as well as practical experience in their application. Lab classes are an integral part of the course work.

In order to fulfill the requirements of Core Component II, six courses have to be taken. These courses are organized into three modules of which the first one comprises skills, which are of a more general nature. Module I (Practical Scholarly and Management Skills) consists of two courses: Academic and Professional Skills, which accompanies students throughout their three years of study and the BA Thesis course which accompanies the writing of the baccalaureate thesis in the last semester. The former course consists of mandatory components in the first semester and a broad range of optional components to be taken later on. It introduces not only basic scholarly skills, such as literature searches, retrievals and the presentation of scholarly works, but also practical management skills such as time management, leadership and group dynamics, as well as conflict resolution. While Module II (Research Methods and Techniques) consists of two mandatory courses which focus on core concepts of empirical research and statistics, Module III (Research Concepts and Methodologies) offers a variety of specific methods and research techniques in different areas. In Module III, students choose two out of the following courses:

- Econometrics
- Logic of Comparative Research
- Secondary Data Analysis
- Meta-Analysis
- Structural Equation Modeling
- Qualitative Research: Methods and Methodology
- Decision Making

While some of these courses will be offered on an annual basis, others will be only available biennially. Students may choose more than two of the above mentioned courses as elective courses (see component III of the GEM curriculum).

## 2.2 Modules and Courses

Module I: Practical Scholarly and Management Skills

Semester:	I - VI
Frequency:	yearly
Credits:	10 ECTS

## 990 100 Academic and Professional Skills

Туре:	Modules
Semester:	Fall 1 / Semester I
Credit Points:	2.5 ECTS

"Academic skills in a nutshell: an introduction to preparing an academic paper" introduces students to the basic principles and procedures of scientific inquiry. In a two-day weekend workshop, students will learn about the requisites of preparing an academic paper (gathering literature, citing and referencing appropriately, avoiding plagiarism, etc.). This will train them for academic life at the university level and enable them to feel at ease with the formalities of academic writing throughout their studies. Upon successful completion of the course students will be awarded 1 credit toward the overall APS module credit.

The elective credits in the APS module cover a wide range of professional, academic, coping, and interpersonal skills. Workshops are offered by the academic units of Jacobs University, by Career Services, the Information Resource Center, the Counseling Center, Financial Services, and more. The university publishes a schedule and description of upcoming elective credits at the start of every semester. Students are able to choose workshops tailored to their needs and wishes (to a total of at least 1.5 credits).

## 990 301 Bachelor Thesis Seminar

Туре:	Seminar
Semester:	Spring 3 / Semester VI
Credit Points:	7.5 ECTS

The purpose of the course is to guide students through the process of writing their baccalaureate thesis. The seminar serves as a source of technical advice and as a forum for the discussion of problems encountered in the writing process. It also trains students to review, critically assess and discuss research projects. Classes are kept small and are organized around related topics of the baccalaureate thesis. Each group is instructed by a regular faculty member and will meet in at least *four workshops* organized around the following topics:

- 1. Brief review of research design issues
- 2. Developing a research question and writing a research proposal
- 3. Discussing and improving the research proposal
- 4. Presentation of progress report
- 5. Presentation and discussion of main scientific contribution of thesis

The baccalaureate thesis is intended to demonstrate mastery of the contents and methods of the major. Topics for the baccalaureate theses will be developed by the students in close cooperation with their thesis supervisors. The thesis must be at least 6,000 words and not longer than 7,000 words, including footnotes. This does not include the title page, student declaration, abstract, table of contents, bibliography, and appendices.

## Module II: Research Methods and Techniques

Semester:	I - II
Frequency:	yearly
Credits:	10 ECTS

## 990 111 Introduction to Empirical Research and Research Design

Type:LectureSemester:Fall 1 / Semester ICredit Points:5 ECTS

This is an introductory lecture on the basic problems and strategies involved in data collection in the social sciences. It explains how quantitative and qualitative researchers acquire their data. It gives an overview of basic approaches to empirical research, such as field studies, case studies, longitudinal research, cross-cultural comparisons, and non-reactive studies. The course also discusses sampling strategies and research techniques, including surveys, observation, experiments, and narrative interviews. The theoretical concepts and paradigms are introduced by presenting real-world research projects and following a case-oriented approach. A first short introduction to methods of statistical analysis in empirical research is offered in this lecture as well. To foster practical experience with empirical research students are offered the opportunity to gain partial course credits by volunteering as participants in experiments in the social and behavioral sciences.

## 990 121 Statistical Concepts and Data Analysis

Туре:	Lecture / Lab
Semester:	Spring 1 / Semester II
Credit Points:	5 ECTS

This course extends the discussion of quantitative methods beyond the introductory level. It reviews some exemplary pieces of quantitative research in management, economics, and the social sciences in order to explain fundamental statistical concepts and examine their potential and limitations in practical data analysis. The topics covered include descriptive statistics, hypothesis testing, and statistical modeling with a focus on regression type models, such as ordinary least squares regression, logistic regression and analysis of variance. The course is equally divided between lecture and lab sessions. During the lab sessions, the tools and concepts discussed during

the lecture sessions are applied to real life data sets. The course also serves as a basic training in the statistics software SPSS. Lab classes are run with small student numbers to ensure optimum supervision and learning outcome. In regular homework tasks, students will work in teams to apply their acquired knowledge to typical data analysis situations.

Students who successfully complete this course will not receive credits towards the 180 ECTS-credits required for their BA degree from the courses *Statistical Methods I* (990 102) and *Statistical Methods II* (990 201). These courses are mutually exclusive due to comparable content.

Module III: Research Concepts and Methodologies

Semester:	III - VI
Frequency:	yearly
Credits:	10 ECTS

## 990 211 The Logic of Comparative Research

Туре:	Seminar
Semester:	Fall 2 & 3 / Semester III & V
Credit Points:	5 ECTS

Empirical research in the social sciences is inherently comparative; we learn by observing variability in social phenomena and from developing theories and collecting data to test hypotheses about their causes. This course will cover three broad themes relevant to comparative research: survey methodology, questionnaire development, and data analysis. While crosscutting these themes, the course examines the problems and potential of historical-comparative research. It looks at the various levels at which comparisons can be conducted, for example, comparisons at the individual and at the group level. The main focus is on exploring how important variables, such as gender, age, race, society, culture, ethnicity, nationality, media systems, and historicity are used in comparative research. The course also examines the special methodological concerns that arise when taking these factors into account. It is set up in a seminar-like style including practical elements to foster competence in the application of empirical data collection process. In team projects a strong emphasis lies on the cultural diversity of the student body vividly illustrating the importance and challenges of any cross-national or cross-cultural comparison.

## 990 212 Secondary Data Analysis

Туре:	Lecture/Lab
Semester:	Spring 2 & 3 / Semester IV & VI
Credit Points:	5 ECTS

It is not always necessary to collect data from scratch. Large data sets available for general use already exist both inside and outside academia. This course introduces students to the problems and techniques involved in secondary data analysis, that is, to the reanalysis of existing data sets with techniques or research questions different from those of the original investigation. It gives examples of data retrieval and bibliographic databases, includes discussions of common uses of secondary data analysis, addresses issues of methodology and interpretation, and trains students in the practical application of secondary data analysis. The course is equally divided between lecture and lab sessions to provide students with both the theoretical underpinning as well as the practical tools for the successful application of the analysis methods.

## 990 222 Econometrics

Туре:	Lecture/Lab
Semester:	Spring 2 & 3 / Semester IV & VI
Credit Points:	5 ECTS

This course focuses on the analysis of secondary data in the business world. Thus, one focus of the course consists of quantitative methods used in economy and business. We will expand on the knowledge acquired in the statistics class and intensify discussion of multiple regression analysis, in particular with an emphasis on longitudinal/time dependent data. The second focus of the course is on the analysis of large data sets that are created 30 during the regular business process, such as billing data, customer information, etc.; data, that is more and more analysed by computer-intensive methods to find structures and patterns.

The general objective is to become familiar with classic and contemporary methods that are used in econometric and business analyses and to become a critical reader of case studies in this field. We will take a practical approach to learn how to run the particular procedures in state of the art software. To foster the practical approach homework and projects will be assigned. By the end of this course, students will know the rules for being competent *practitioners* of econometrics. This involves:

Understanding how data should be organized for undertaking econometric modeling and the steps required for preparing data for analysis; Recognizing what technique to select from the econometric toolkit given the pattern of values in the data; Being able to interpret results with respect to both their *statistical* and *economic/social* significance; Be able to cast a skeptical eye on econometric results in the literature; Have fun working with social science data.

#### 990 242 Meta-Analysis

Туре:	Lecture/Lab
Semester:	Spring 2 & 3 / Semester IV & VI
Credit Points:	5 ECTS

Meta-analysis is a statistical technique for synthesizing data from previous quantitative research studies. Meta-analysis has become a critically important tool in many disciplines, such as business, ecology, medicine, psychology, and education. This course outlines the role of meta-analysis in the research process, explains the various steps in a meta-analysis and shows the practical application of meta-analysis. The common measures for effect size and their analysis using meta-regressions based on random- and fixed-effects models are developed and discussed. While the main part of the course will focus on continuous data, additional aspects of meta-analysis for binary data will be covered.

#### 990 232 Structural Equation Modeling

Туре:	Lecture/Lab
Semester:	Spring 2 & 3 / Semester IV & VI
Credit Points:	5 ECTS

This course focuses on the analysis of secondary data on the disciplinary borders of psychology, sociology, and political science. It will introduce the participants to the use of structural equation modelling on data that have been gathered in research conducted in these fields. A thorough introduction into the use of the program package AMOS (special module of SPSS) will be given in a hands-on practical way. The software as well as the data to be worked on will be provided, but interested students can also work on own data.

We will engage in confirmatory factor analyses and contrast them with exploratory factor analysis as taught in the Statistics II lecture. We will furthermore conduct model tests of regression model with latent and manifest endogenous and exogenous variables, and will in this context deal with problems like 'correlated error.' A further problem approached in the course will be possibilities to secure cross-cultural equivalence of scales, and, finally, the analysis of panel data within the framework of structural equation.

#### 990 202 Qualitative Research: Methods and Methodology

Туре:	Seminar
Semester:	Spring 2 & 3 / Semester IV & VI
Credit Points:	5 ECTS

Qualitative research is concerned with meaning – for instance, the meaning that events have for people, or the meaning of written texts or works of art. By applying qualitative methods, researchers seek to obtain an in-depth understanding of these meanings. The course examines the methodological foundations of qualitative research, introduces purposive sampling strategies that are especially suitable for an in-depth discovery of meaning, discusses how researchers from the humanities and social sciences acquire their data (for instance through interviews, focus groups, or observation), and reviews methods for the analysis of qualitative data (such as: various types of coding, content analysis, discourse analysis, visual analysis). Special emphasis is placed on examining the 'quality of qualitative research', including the extent to which the traditional criteria of objectivity, reliability, and validity can be applied. The course is held in part as a seminar and in part as a lab where students apply the methods to data from their own fields of study.

During the lab sessions, students are required to participate in and report on activities involving the application and trying out of selected methods. Also, students will develop, carry out, and report on small group research projects, fostering the integration of methodological knowledge about methods and designs with practical expertise in applying these methods. Lab sessions are run with small groups to ensure optimal supervision of research projects.

#### 710 302 Decision Making

Туре:	Lecture
Semester:	Spring 2 & 3 / Semester IV & VI
Credit Points:	5 ECTS

Decision making may be defined as intentional and reflective choice in response to perceived needs. Decision making and decision theory are broad and complex areas of great theoretical interest and practical impact in many fields. Decision making has been studied in philosophy, mathematics, statistics, economy, biology, sociology, psychology, marketing, psychiatry, organizational behavior, political science, and anthropology, among other disciplines.

The following topics are covered in this lecture:

- Basic concepts: Utility, preference, uncertainty, prediction and interference (judgment), evaluation, and choice.

- Prescriptive (normative) theories: Subjective expected utility (SEU), prospect theory, sign – and rank dependent utility; cumulative prospect theory.

- Descriptive theories: Decision making under certainty; random utility models, elimination by aspects (EBA)

- Decision making under risk / uncertainty: Structural models; Hammond's social judgment theory; Brunswik's lens model; Anderson's information integration theory (functional measurement- process theories contingency model; cost/benefit model (adaptive decision maker; criterion dependent choice model; decision field theory.

- Practical issues: Improving decisions and avoiding decision traps.

#### 3. Component III (SHSS Electives and Language Courses)

In contrast to the two standardized core components, this third component of the Global Economics and Management curriculum offers students more choice. Courses from disciplines such as psychology, political science, sociology, and communication science are of obvious interest to students of economics and management. They help to deepen and broaden knowledge gained in the mandatory courses of Module III and especially to explore in more depth the socio-economic framework conditions of economic challenges and decisions. Another way of using the Home School Electives is to build self-defined areas of specialization; for more information on this approach to choosing elective courses see the Appendix *Areas of Specialization*.

In addition to the above-mentioned courses, students take four to six language courses. Four of these courses are German language courses, which are taken in the first two years. These courses help students to communicate off campus. They are furthermore meant as an invitation to take more German classes later on so as to take advantage of job offers and internships in Germany. For German students a minimum of four courses in another foreign language are mandatory.

**Please note** that credits earned in certain economics, management and statistics courses from other study programs do not count towards the 180 ECTS-credits required for the BA in Global Economics and Management as their course matter overlaps with that of mandatory GEM courses. These courses are *Introduction to Economics* (930 201), *Firms and Markets* (930 312), *Statistical Methods I* (990 102) and *Statistical Methods II* (990 201).

## 4. Component IV (Transdisciplinary Courses)

This fourth component is made up of Other School Electives (OSEs) and University Studies Courses (USCs). It offers students another opportunity to take courses of their choice outside their mandatory core courses. While students are encouraged to study a broad range of subjects and to sample courses from fields that do not immediately appeal to them, they are free to set their own priorities among the many offerings in Engineering and Science as well as University Studies Courses (USCs). Another way of using the Other School Electives is to build self-defined areas of specialization; for more information on this approach to choosing elective courses see the Appendix *Areas of Specialization*.

University Studies Courses such as "From Cell to Community: How to Understand Animal and Human Societies", "China and Globalization", and "Mathematics and Democracy" are examples of the many transdisciplinary offerings outside the GEM curriculum.

## **IV. Job Perspectives and Graduate Programs**

The BA in Global Economics and Management offers students many different career opportunities. They can enter the job market immediately or continue their studies on the graduate level – at another university or at Jacobs University's graduate programs.

Students who want to enter the job market, will find opportunities in firms, government institutions, international organizations, business associations, the media, political organizations and NGOs. They will have a specific advantage competing for jobs that require not only basic skills and qualifications in the two academic fields of business administration and economics but also inter-cultural social and communication skills, a solid knowledge of socio-economic framework conditions in a globalized world, flexibility and commitment as well as practical problem-solving skills and methods. Such jobs are increasingly offered in all institutions mentioned above, but specifically in international organizations, multinational corporations and governmental institutions. If students decide to use their elective courses to specialize they will find specific opportunities in areas such

as market research and human resources as well as in the logistics, energy, utility and environmental industries. Other possibilities include entrepreneurship and social entrepreneurship. Students are moreover qualified to work in Small and Medium Sized Enterprises (SMEs), many of which have a strong global orientation in Germany and specifically in the metropolitan areas Bremen, Oldenburg and Hamburg.

Jacobs University supports students seeking jobs through the professional offerings of the *Career Services* department and through the worldwide networks of its Alumni Association. Guest lectures given by business leaders and close contacts to and co-operation with firms in Europe, Germany and especially in the metropolitan areas Bremen, Oldenburg and Hamburg lead to valuable contacts during the course of studies. Internships provide an in-depth experience with potential employers.

## **Appendix: Areas of Specialization**

The Home School Electives and the Other School Electives of Components III and IV of the GEM curriculum can be used in two different ways. Following Anglo-Saxon traditions of undergraduate studies, these electives can be used for diving into diverse fields of interest that are not directly related to economics or management. Another way of using these elective courses is by exploring specific transdisciplinary areas of specialization. Students can choose up to five Home School Electives and six Other School Electives in areas such as:

- International Political History
- Energy and Environmental Policy
- Quantitative Methods
- International Logistics
- Intercultural Behavior

Among the disciplines that are relevant for these specializations are political science, sociology, psychology, history, mathematics, statistics, engineering and natural sciences. While none of the specializations caters exclusively to

either economics or management, some of them are more relevant to one of these two disciplines than others. While *International Political History* plays a prominent role in economics and especially in International Political Economy (IPE) and thus in international organizations, courses in *International Logistics* are mainly geared towards the needs of firms. *Energy and Environmental Policy*, while formally a function of government policy and thus of economics, is also highly relevant for firms in the energy, utility and environmental industries. *Intercultural Behavior* and intercultural organizations but increasingly also in national institutions and specifically in personnel departments. Finally, while specific *Quantitative Methods* have been developed for many disciplines, they show considerable overlap and share a common foundation in basic mathematics and statistics. A solid knowledge of quantitative (and qualitative) methods will enable students to work in many fields of applied research, such as market research.

Courses that may be interesting to students in these transdisciplinary areas of specialization are listed in Table 3. However, the courses listed are not necessarily the best-suited courses and conflicts in the course schedules may prevent students from taking all the courses of a given field. Table 3 is only intended to give students some ideas for building self-defined areas of specialization. The final choice of courses is up to the students and depends on the course offerings in other programs. Students may want to consult with their academic advisors and their instructors what other opportunities exist to use Home School Electives and Other School Electives to define transdisciplinary areas of specialization for the BA Global Economics and Management.

If students are interested in building areas of specialization during the course of their studies they should take into consideration the following **advice**:

 Start creating an area of specialization early on in your studies, ideally in the first semester. The earlier you start focusing on a specific transdisciplinary area of specialization, the more likely it is that you will be able to take quite a few courses in this area during the course of your studies.

- Make sure that you take into consideration that quite a few courses from other programs can only be taken once introductory courses have been successfully completed! Such course requirements and prerequisites are especially relevant for specializations in areas such as Quantitative Methods and International Logistics. Courses such as General Logistics I and II as well as introductory math and statistics courses (for example ESM 1 and ESM 2) should be taken in the first year of study.
- When looking for courses for your self-defined area of specialization, check the course offerings of specific study programs! The areas of specialization in Table 3 are closely related to one or the other specific study program of Jacobs University. In all these programs you will find quite a few other interesting courses.

## Important:

This table gives only examples for the creation of areas of specialization. It is up to the students to build such areas. The availability of courses depends on the offerings in other study programs. Schedule conflicts may reduce the choice of courses.

Table 3: Areas of Specialization					
	Course number	Term	Year	Semester	Credits
S I: International Political History (IPH)					
International Relations in the Nineteenth Century	850 102	Spring	1	II	5.0
International Relations in the Twentieth Century	850 202	Spring	1	II	5.0
History of Globalization	850 332	Spring	3	VI	5.0
Modern Asian History	820 201	Fall	2	III	5.0
Democratic Governance	910 202	Spring	2	IV	5.0
S II: Energy and Environmental Policy (EEP)					
General Integrated Environmental Science I	040 101	Fall	1	I	5.0
General Integrated Environmental Science II	040 102	Spring	1	II	5.0
Sustainable Energy Policy	040 201	Fall	2	III	5.0
Energy Economics	040 202	Fall	2	III	5.0
International Energy and Environmental Politics	040 211	Spring	3	VI	5.0
S III: Quantitative Methods (QM)					
ESM1A – Single Variable Calculus	120 101	Fall	1	I	5.0
ESM2A – Linear Algebra, Probability, Statistics	120 112	Spring	1	Ш	5.0
Natural Science Lab Unit - Numerical Software	110 112	Spring	2	IV	2.5
Derivatives Lab	110 221	Fall	3	V	7.5
Decision Making	710 302	Spring	3	VI	5.0
S IV: International Logistics (IL)					
General Logistics I	050 101	Fall	1	I	5.0
General Logistics II	050 102	Spring	1	Ш	5.0
Production Logistics	050 232	Spring	2	IV	2.5
Contract Logistics	050 221	Spring	2	IV	2.5
Distribution Logistics	050 231	Fall	2	Ш	2.5
Basics of Manufacturing Technology	050 262	Spring	2	IV	2.5
S V: Intercultural Behavior (IB)					
Introduction to Social Psychology	730 101	Fall	1	I	5.0
Civic Networks and Social Capital	930 102	Spring	1	Ш	5.0
Stereotypes, Prejudice and Discrimination	730 201	Fall	2	III	5.0
Culture and Organizational Behavior/Cross-Cultural Management	701 202	Spring	2	IV	5.0
History of World Religions in the Modern Age	610 121	Fall	3	V	5.0
Total Credits					25.0

The courses and areas of specialization listed in Table 3 as well as their descriptions below are just examples of how to self-define areas of specialization. Students are free to set their own priorities.

International Political History enables students to place economic issues and problems into a framework of international historical developments and national political institutions. Such a specialization provides insights into the historical development of globalization and of international relations in the 19<sup>th</sup> and 20<sup>th</sup> centuries. A course on *Modern Asian History* complements the course on *Modern Economic History since the Industrial Revolution* in the core component I of the GEM curriculum. The study of national political institutions is focussed on the conceptual foundations and the current performance of democratic systems.

*Energy and Environmental Policy* introduces students not only to the basics of environmental studies but also to various dimensions of energy policy. While introductory courses draw conclusions for environmental policy and management from disciplines such as biology, chemistry, physics and ecology, more applied courses with a public policy focus deal with the specific challenges of energy markets, policies and geopolitics.

*Quantitative Methods* broadens students' knowledge of single variable calculus, linear algebra, probability and statistics in two introductory lectures (Courses ESM 1A and 1B). More applied components of this track include Numerical Software and Derivatives Labs on the one hand and a course on the concepts, theories and practical challenges of decision making on the other.

While Courses ESM 1A and 2A are recommended to GEM students who want to focus on quantitative methods, they can be replaced with B- and C-versions of the ESM course, depending on the specific interests and existing knowledge of students. The above-described Lab Courses can be complemented with similar Labs. The course Decision Making can only be taken for credit if it has not already been taken for credit in Module III (Methods and Statistics) of Core Component II (Research Concepts and Methodologies) of the GEM curriculum. International Logistics offers students the opportunity to study an applied field of management of significant regional and global relevance. Two introductory lectures present the design and control of logistics processes as well as specific topics in logistics such as supply chain management, quality management, environmental management and resource management. Other courses cover production logistics, contract logistics and lean distribution logistics as well as basic technical designs and manufacturing technologies.

Intercultural Behavior has a strong focus on the psychological and societal dimensions of human behavior, which is highly relevant for many economic activities. Insights offered in the courses of this track are particularly employed in intercultural organization and management (but to some extent also in market research). Introductory courses cover topics such as the nature and causes of individual behavior in different social situations, interactions between culture and organizations as well as stereotypes, prejudice and discrimination. Other courses focus on intercultural competence and on world religions.