JACOBS UNIVERSITY

Integrated Social and Cognitive Psychology

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As of September 1, 2014 the School of Engineering and Science and the School of Humanities and Social Sciences have been replaced by the Focus Areas Health, Mobility and Diversity.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

Document Status Sheet

Revision	Date	Reason for Revision
01	05.12.2003	Course numbers have been changed
02	05.12.2003	Change in regulations regarding transdisciplinary courses
03	26.02.2004	Clarification requirements for Statistics and Methods
04	20.04.2004	Accreditation of the BA program
05	13.10.2004	Timetable change of the courses 710 101 Sensation and Perception; 710 102 Learning and Memory and 720 201 Emotion and Motivation
06	22.10.2004	URLs updated
07	03.03.2005	Regular update following extended accreditation
08	15.07.2005	Conversion to ECTS credit points
09	02.09.2005	Timetable correction course 930 301 Production and Visualization of Research Findings
10	30.07.2007	Change of university name and update faculty
11	16.08.2007	Replacement of Course 'Scientific Work and Learning Skills' by 'Academic and Professional Skills'
12	20.08.2008	Revision of Handbook Curriculum Reform
13	08.07.2009	Revision of Handbook Curriculum Reform: 1) Renaming of course "Attitudes" into "Attitudes and Social Cognition" 2) New course: "Introduction to Cognitive Psychology" 3) Replacement of course "Thinking and Problem Solving" by "Attention" 4) "Decision Making" moved from from Module 1 to Module 3 5) Laboratory III abolished 6) Added Dr. Song Yan and Özen Odag under 4. Faculty
14	18.06.2010	Revision of handbook. Faculty update.
15	23.05.2011	Update Methods Courses
16	9.08.2013	Changes to the course description of 730 201 Stereotypes, Prejudice and Discrimination
17	28.07.2014	Cover updated, disclaimer included.

JACOBS UNIVERSITY

Accreditation of the BA program in

Integrated Social and Cognitive Psychology

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

JACOBS UNIVERSITY

Content

This table is subject to change. Students are required to check the online course catalogue every semester.

Integrated Social and Cognitive Psychology						
	type	**course number**	**term**	**year**	**semester**	**credits**
CORE COMPONENT I: PSychology						**75.0**
I. Module: Basic of Cognitive Psychology						
Introduction to Cognitive Psychology	Lecture	710 111	Fall	1	I	5.0
Sensation and Perception	Lecture	710 101	Spring	1	II	5.0
Learning and Memory	Lecture	710 102	Fall	2	III	5.0
Attention	Seminar	710 211	Spring	2	IV	5.0
II. Module: Basics of Social Psychology						
Introduction to Social Psychology	Lecture	730 101	Fall	1	I	5.0
Attitudes and Social Cognition	Seminar	730 102	Spring	1	II	5.0
Stereotypes, Prejudice and Discrimination	Lecture	730 201	Fall	2	III	5.0
Social Influence	Seminar	730 202	Spring	2	IV	5.0
III. Module: Integrated Approaches to Social and Cognitive Psychology						
Emotion and Motivation	Seminar	720 201	Spring	2	IV	5.0
Communication and Interaction	Seminar	720 301	Fall	3	V	5.0
Culture and Cognition	Seminar	720 311	Fall	3	V	5.0
Social Neuroscience	Seminar	720 302	Spring	3	VI	5.0
Decision Making	Lecture	710 302	Spring	3	VI	5.0
IV. Module: Laboratories in Social and Cognitive Psychology						
Lab Course in Experimental Psychology I	Lab	740 101	Fall	1	I	5.0
Lab Course in Experimental Psychology II	Lab	740 102	Fall	2	III	5.0
CORE COMPONENT II: Methods and Statistics						**35.0**
Module I: Practical Scholarly Skills						
Academic and Professional Skills	Modules	990 100	Fall	1	I	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 Methods I:Exploring Relationships and Comparing Groups	Lecture/Lab	990 102	Spring	1	II	5.0
Statistical Methods II: Classification, Modelling, and Prediction	Lecture/Lab	990 201	Fall	2	III	5.0
Module III: Research Concepts and Methodologies						
The Logic of Comparative Research	Seminar	990 211	Fall	2	III	5.0
Students choose one out of the following courses: Econometrics, Secondary Data Analysis, Meta-Analysis, Structural Equation Modeling, Qualitative Research *			Spring	2	IV	5.0
CORE COMPONENT III: SHSS Electives						**40.0**
Electives from the SHSS (6-8 courses) / Languages Courses (up to 4 courses á 2.5 credit points						
CORE COMPONENT IV: Transdisciplinary Courses						**30.0**
6 transdisciplinary courses (Engineering and Science Courses or University Studies Courses						
Internship			Summer	2	IV	**0.0**
Total Credits for the BA in Integrated Social and Cognitive Psychology						**180.0**

* – 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 ISCP-curriculum.

1. Philosophy

The Integrated Social and Cognitive Psychology (ISCP) program is based on three fundamental insights.

First, recent research in Cognitive and Social Psychology has made clear that in order to understand what determines individuals' feeling, thinking, and behaviour, one must first examine the fundamental processes underlying them and second investigate their contextual determinants. Thus, most of these fundamental psychological processes are based on cognition and perception in a social context. Whereas Cognitive Psychology investigates basic principles of perception, memory, learning, decision making, and problem solving, Social Psychology, and especially the discipline of social cognition, investigates how these principles can explain more complex behaviours such as interactions between people, person perception, social influence, prejudice and discrimination, and pro and antisocial behaviour. Furthermore, in order to understand how people behave, it is important to develop and understand theories of human functioning whose predictions can then be tested in the laboratory or the field. Thus, two major cornerstones of our education are classic and recent theory development and methods in experimental research. Moreover, the usefulness of wider integration between different levels of organization of behaviour has been underlined. Thus, courses dealing with the core elements of Social and Cognitive Psychology are complemented by others that outline how culture, and processes such as emotion and motivation determine cognitive processes in their social context.

Second, since Social and Cognitive Psychology examine the psychological functioning of the individual, a more transdisciplinary approach is valuable in order to predict behaviour of bigger entities, such as groups, the work place, nations, and cultures. Examination of ethnic conflicts, educational issues, or welfare - to give just some examples for societal variables that directly affect

people's behaviour and well being - clearly enriches our understanding of how the individual behaves. Thus, human behaviour can not clearly be understood without drawing intellectual resources of various disciplines such as political science, sociology, mass communication and history. Jacobs University offers such courses as electives in the School of Humanities and Social Sciences.

Third, Psychology is the science of the mind and new developments in Neurophysiology and Neurobiology let hope that we can eventually reach a state at which we may relate the understanding of the mind to the physiological organ it is based on, namely the brain. While the goal of understanding how the nervous system relates to behaviour is most advanced in research on sensation psychological science is not yet in a position to provide a physiological explanation of more complex behaviour, yet, it seems possible that one can deduce what some of the relevant principles might be. Indeed, Cognitive Psychology has become an interface between the behavioural sciences and the neurosciences. The obvious advantage for Jacobs University students is that these fields are represented in the School of Humanities and Social Sciences and the School of Science and Engineering. Professors from both fields work in close cooperation both on the level of course content and on research topics allowing students to focus more on the behavioural or on the neuroscience aspects.

2. Structure

The ISCP-curriculum is a three year program leading to a Bachelor of Arts in Integrated Social and Cognitive Psychology. The course work is organized into four components:

- **Core Component I (Psychology)**: 15 mandatory courses introduce students to basic issues and theories in Social and Cognitive Psychology.
- **Core Component II (Methods and Statistics)**: The social science disciplines share not only theories and research problems, they also share common methodological approaches and research methods.

The 7 mandatory courses in this module familiarize students with these methods, and provide practical training in their use and application.

- **Component III (SHSS Electives and Languages Courses)**: The ISCP-curriculum is linked to 'neighboring' disciplines in the humanities and social sciences. ISCP-students take a total of 6 - 8 so-called elective courses from all SHSS undergraduate program. Additionally, students may take up to four languages courses.
- **Component IV (Transdisciplinary Courses)**: The ISCP-curriculum builds two bridges to engineering and science. ISCP-students take between elective courses from the offerings of Engineering and Science as well as so-called University Studies Courses (USCs). University Studies Courses are a specialty of Jacobs University. They are taught jointly by one professor of each of the two Schools on a topic linking the social sciences and engineering or the sciences. In total each student must take six transdisciplinary courses during the course of their studies.

The first two components constitute the core of the ISCP-curriculum. They comprise what students must know, substantively and methodologically, in order to qualify as an ISCP-major. These two components do not only include interacting psychology branches (Social and Cognitive Psychology) they are also interwoven by focusing on methodology from two different viewpoints: Namely from the psychology (experimental psychology) as well as from the social science perspective (statistical methodology). The courses of the first two components have a fixed and highly coordinated modular structure which will be described in more detail below. Since students take these courses in a fixed order, both students and instructors can rely on a basic level of knowledge in any given course.

The last two components give the students the opportunity to explore links to connected domains. There organization leaves students more room for choice than the first two components. An understanding of behaviour and mental

processes is augmented by integrating the psychological level of analysis with connected social and natural sciences.

Study at Jacobs University offers the possibility to connect the major in Psychology with education in other social sciences (e.g. sociology, mass communication, etc.) as well as related fields from natural sciences and engineering (e.g. biology, computational science).

II. Organization

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

1. Formal requirements

The minimum of 36 courses in the ISCP-curriculum lead to a BA degree after three years (i.e., six semesters). Most courses counts 5.0 ECTS credit points. Hence, 180 ECTS credit points are needed to obtain the BA degree in ISCP. Compared with other grading systems, Jacobs University's grading scheme looks as follows:

Table 1: Jacobs University Grading Scheme

Jacobs University Numerical Value	European Credit Transfer System (ECTS)	American Grade	American Numerical Value	Jacobs Univ. GPA
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

For further information on grading regulations, please consult the Jacobs University Internet site (http://www.jacobs-university.de).

At Jacobs University students may choose to take a double major, or in very exceptional cases, a combined major. It is not possible for students to take a

double major in Integrated Social and Cognitive Psychology and Intercultural Relations and Behavior. Please see the "Policies and Regulations" on the website for further information.

Furthermore, all undergraduate students are required to complete an internship, normally to be accomplished between the second and third year of study. The internship must last at least two consecutive months. Each student must file a report with the Career Services Center shortly after completion of the internship experience. Information about the internship will be listed on the transcript. For more information on internships see http://www.jacobs-university.de/career-services/internship.

Student performance is assessed exclusively 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 assessment format consists of a mid-term and a final written exam. In more advanced courses, it may include oral presentations, classroom discussion, position papers or a research paper. The BA thesis is also written and evaluated as part of a specific course. As a matter of policy, there are no courses that require physical presence alone (no *Sitzscheine*).

Students are informed about their grades regularly and quickly. At the end of each semester, they receive a grade report with grades for all the courses they have taken from the beginning of their studies as well as their grade point average for each semester. They also receive a transcript with the final degree. This detailed record is particularly important for students who apply to study programs abroad (e.g. graduate school). Since fall 2003 this system has been replaced by a fully computerized system (campus.net) giving students online access to their grade record.

2. Organization of the coursework

The sequence of the ISCP 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. ISCP courses, which are offered annually, are made up of 28 sessions. 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 ISCP-curriculum.

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 that deadline, participation is mandatory. Each course has its own site in campus.net with important information such as 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. An online discussion forum is available for each course where participants can further discuss class topics or access additional teaching materials. All students need laptops and will have access to a wireless network, which allows for flexible use of electronic information resources inside and outside the classroom.

3. Faculty

The ISCP curriculum is taught by a faculty that is specifically recruited for this program. The present ISCP faculty consists of the following professors:

- Prof. Dr. Adele Diederich, Professor of Psychology
- Prof. Dr. Christopher Cohrs, Professor of Psychology
- Prof. Dr. Arvid Kappas, Professor of Psychology
- Prof. Dr. Ulrich Kühnen, Professor of Psychology
- Prof. Dr. Sonia Lippke, Professor of Health Psychology
- Prof. Dr. Bettina Olk, Professor of Psychology
- Prof. Dr. Song Yan, Professor of Psychology

The methods component is taught by additional faculty:

- 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. Colin Vance, Professor of Quantitative Methods
- Prof. Dr. Adalbert Wilhelm, Professor of Statistics

III. Content

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

1. Core Component I (Psychology)

1.1 Structure

The Psychology component lies at the core of the ISCP-program. All 15 courses in this component are mandatory. The purpose of the component is to give students a solid understanding of the psychological study of the fundamental principles of human behaviour and their contextual determinants. These principles and their applications are studied both from the perspective of social and cognitive psychology, which are equally represented in this component of the ISCP curriculum. Table 2 gives an overview of the core component I.

Table 2: Core Component I (Psychology)

General Goals of Teaching: Understanding the psychological study of the fundamental principles of human behaviour and their contextual determinants.			
Module I: Basics of Cognitive Psychology	Module II: Basics of Social Psychology	Module III: Integrated Approaches to Social and Cognitive Psychology	Module IV: Laboratories in Social and Cognitive Psychology

Four courses introduce students to the basic principles of human information processing such as perception, attention, learning and memory, thinking and problem solving and decision making and focus on these principles in separate lectures and seminars (Module "Basics of Cognitive Psychology"). Four other courses concentrate on the contextual determinants of more complex phenomena taking place in social interaction, including attitudes and the basics of social cognition, stereotypes and prejudice as well as social influence processes (Module "Basics of Social Psychology").

It is the goal of the ISCP curriculum to provide students with a sound understanding of the key theoretical perspectives on human thinking, feeling, and action that are useful for applied and research contexts. This wider level of understanding is further enhanced through four additional courses which constitute Module III: Integrated Approaches to Social and Cognitive Psychology. While links between social and cognitive approaches also are emphasized in the first two modules, this advanced module is more explicit at bridging classical approaches from Cognitive and Social Psychology, hence providing integration and synthesis. The courses of this module include aspects such as emotion and motivation, the interaction of culture and cognition, communication and interaction, decision making as well as biological underpinnings of human behaviour in the social context. Understanding current psychological research and theory requires the capacity to critically evaluate literature in this domain. This involves a mastery of the unique experimental methods being frequently used in psychology. Two laboratory courses (building the fourth module of the psychology component) therefore provide students with both theoretical and hands-on experience with techniques and methods that are typical for psychological research and its application. For advanced students there may be the option to consider an empirical independent studies project in year 3 after having passed both lab courses.

1.2 Modules and Courses

Module I: Basics of Cognitive Psychology

Semester: 1 - 4
Frequency: yearly
Credits: 20 ECTS

The courses in this module analyse mental processes and their effects on human behaviour. The focus is on an introduction to cognitive psychology, perception, attention and human learning and memory.

710 111 Introduction to Cognitive Psychology

Type: Lecture
Semester: Fall 1 / Semester I
Credits Points: 5 ECTS

This course provides an introduction to cognitive psychology. The goal of cognitive psychology is to understand how the human mind works, in particular how we perceive, attend to, learn and memorize information as well as how we solve problems and make decisions. The course will focus on the historical foundations of cognitive psychology, influential and current theories and models as well as empirical research methods. As an introductory course, this lecture will review important aspects of cognitive psychological research, which then will be discussed in more detail in 1st, 2nd and 3rd year lectures and seminars.

The lecture includes the following topics:

- History of Cognitive Psychology
- Basic concepts and research methods of Cognitive Psychology
- Perception
- Attention
- Learning and Memory

- Thinking and Problem Solving
- Intelligence
- Language and Knowledge
- Decision Making
- Cognitive Development
- Cognitive Neuroscience and Neuropsychology

710 101 Sensation and Perception

Type: Lecture
Semester: Spring 1 / Semester II
Credits Points: 5 ECTS

Pioneering work on sensation and perception started in the 19th century and through the years, perception has remained a major focus of Psychology. Sensation refers to the process of detecting a stimulus or a stimulus property in the environment. It is the necessary collection of information about the world from which perceptions will be made. Perception refers to the way in which we interpret the information that is gathered by the senses. The process of perception can not be understood while ignoring the known physiology of the sensory systems that underlies the perceptual process. The course covers both physiological explanations for phenomena of perception and more cognitive aspects of the perceptional process, for which a physiological explanation might be available in the future.

This lecture covers the following topics:

- Methods of investigation: Phenomenological method; psychophysical methods such as methods of limits, method of constant stimuli, magnitude estimation, and basic ideas of signal detection; psychophysical measures such as absolute threshold, difference threshold, adaptation; Fechner's law, Weber's law, Stevens' power law.

- Visual perception: The visual stimulus, the structure of the eye, neural processing including basic neural circuitry, and information flow and organization in the brain; perception of objects and models of object perception such as the Gestalt approach, feature integration theory (Treisman), recognition-by-component model (Biederman), Marr's computational approach; perception of depth, monocular depth cues, binocular depth cues; perception of color and models of color perception such as trichromatic theory, opponent-process theory; perception of movement, motion sensing systems such as image-retina system, eye-head system, corollary discharge theory; perceptual constancies such as color constancy, size constancy, lightness constancy, shape constancy; and phenomenon such as visual illusions.
- Auditory perception: The sound stimulus, the structure of the ear, neural processing in the cochlea and auditory nerve; the experience of sound (loudness, pitch, timbre); perception of simple tones and complex sound; models such as Bekesy's Place Theory; localization of sound.
- Touch and pain: The cutaneous stimulus; the skin and its different receptor systems; active versus passive touch; pain and pain relief, such as analgesia and endogenous opiates, placebo.
- Smell and taste: The olfactory stimulus, the olfactory system, the taste stimulus, the taste system; pheromones; taste quality; flavor.

710 102 Learning and Memory

Type: Lecture
Semester: Fall 2 / Semester III
Credits Points: 5 ECTS

The study of memory seeks to understand how information is stored and retrieved, how new information is integrated to existing information, why we forget, and whether or not we can improve memory. The concept of model testing, i.e., stating assumptions and deriving predictions, empirical testing, and possible modification of the model, is introduced.
This lecture covers the following topics:

- Sensory memory: Link between perception and memory; iconic memory; echoic memory; experimental paradigms such as partial report.
- Immediate memory: Information to be retained only briefly; experimental procedures for investigating immediate memory such as free and serial recall, Brown-Peterson paradigm; models of immediate memory such as Broadbent's model of primary memory; Atkinson & Shiffrin's Dual Store model; serial position curves and its meaning for testing immediate memory; Sternberg paradigm for memory retrieval from short-term store; Baddeley's working memory model; levels of processing.
- Generic memory: Information to be retained indefinitely; propositions and concepts; knowledge; models of semantic memory such as Collins & Quillian's hierarchical model; the feature overlap model; Collins & Loftus's spreading activation model including priming.
- Forgetting: The failure to retrieve a memory of a previous experienced event; models of forgetting such as consolidation theory, interference theory; decay versus interference in immediate memory; retroactive interference; proactive interference.
- Implicit memory: Memory without reference to a specific learning episode; Implicit versus explicit memory; indirect versus direct test; implicit learning; experimental dissociations; association priming; models of implicit memory such as activation, multiple memory systems, transfer appropriate processing, bias approach.
- Memory and brain: The neural base of learning and memory; Information processing in and between neurons; synaptic plasticity; postsynaptic potential; classical conditioning; instrumental conditioning; Hebb rule; anatomy; cerebral cortex, methods of investigation such as EEG, ERP, CT, MRI, PET, fMRI.
- Memory deficits: Amnesia and Alzheimer's disease; retrograde and anterograde amnesia; Korsakoff syndrome; methods to assess amnesia; case study; Alzheimer's disease and diagnosis.
- Recognition: Identifying material that has been presented previously; signal detection theory; face recognition.

- Reconstructive processes in memory: Eyewitness memory; flashbulb memory; hypnoses; emotion and memory; context and memory; cognitive interview; implanting memories (false memory).
- Mnemonics: Strategies used to improve memory; levels of processing; PQ4R; method of loci; method of associations; method of key words; number-consonant alphabet.

710 211 Attention

Type: Lecture
Semester: Spring 2 / Semester IV
Credits Points: 5 ECTS

Attention research seeks to understand how attention allows and affects detection, perception and encoding of information, which algorithms underlie attentional functions and how those are implemented in the human brain. The course focuses on classic and current issues within the field of attention research.

The course includes the following topics:

- Seminal past and current theories and models of attention
- Research methods and paradigms to study attention; attention tests
- Alerting, sustained attention, divided attention, selective attention, joint attention
- Involuntary versus voluntary attention, attentional control
- Overt attention: exploring the world with saccadic eye movements
- Attention across modalities
- Development of attentional functions
- Disorders of attention; impact of brain injuries on attention
- Neuronal networks of attention in the brain
- Practical applications of attention research

Module II: Basics of Social Psychology

Semester: 1 - 4

Frequency: yearly

Credits: 20 ECTS

Humans are by nature social beings. Their mental processes and actions are influenced by their social context at the individual level, in interaction, and in groups. Hence, the courses of this module provide an introduction to the Social Psychological perspective which seeks to examine human thinking, feeling, judgment and action primarily by understanding influences of the social context.

730 101 Introduction to Social Psychology

Type: Lecture

Semester: Fall 1 / Semester IV

Credits Points: 5 ECTS

Social Psychology is a scientific field that seeks to understand the nature and causes of individual behaviour, thought, judgment and emotion in social situations. In other words, our feelings, thoughts and behaviour are very much influenced by typical contextual factors such as the living environment, the social structure, or the political sphere, to name a few. However, context also refers to other factors that influence how an object or a person is perceived, such as the mood, the expectations, the needs and the prior knowledge of a perceiver. Other Social Psychology issues of interest include how people interact, how inter-group conflict can be understood, and when people help each other or aggress against each other.

This lecture will review important aspects of social psychological research, which then will be discussed in more detail in 2nd and 3rd year seminars. These aspects include:

- History of Social Psychology: A brief history of the origins of Psychology and the development of Social Psychology as an own discipline.
- Basic concepts and methods of Social Psychology

- Classic theories: Attribution theory, dissonance theory, and self perception theory, etc.
- Person perception and social encoding: Which features are salient and which drive our evaluation? What affects our attitudes and our evaluation of people?
- Person memory: Which information is remembered?
- Stereotypes, prejudice and discrimination: The concept of stereotypes and their consequences. How can stereotypes be changed?
- Social inference: How do judgments and decisions change according to the social contexts? Heuristics and biases. Bad and good decision-making.
- Automatic social cognition: Basic concepts, theories, and experiments on the ongoing consciousness debate. Are all our judgments malleable? Is most of our behaviour produced unintentionally?
- Inter-group conflict and behaviour: How can inter-group conflict be understood and resolved? What produces it? How can it be prevented?
- Social Identity and the self: How can the self be understood from a social psychological perspective?
- Communication: Theories of communication. Group work and group performance. Communication problems.
- Mood: Social Psychological theories of mood. The influences of mood on cognition. The influence of cognition on mood. Mood and behaviour.
- Motivation: Theories of needs and goals. Behaviour in the social context. Achievement motivation. Aggression and pro-social behaviour.

730 102 Attitudes and Social Cognition

Type: Seminar
Semester: Spring 1 / Semester II
Credits Points: 5 ECTS

Attitudes and social cognition are core topics of social psychology. An attitude is a representation summarizing an individual's evaluation of an object.

Attitudes often combine feelings (affect), inclinations to act (behaviour), and beliefs (cognition). From a layperson's perspective, one might think that an attitude is stable and, when needed, can be retrieved like a stored document: We know whom we love, we know what we like and this will not change that easily. Social Psychological research challenged this notion by providing empirical evidence reflecting the fact that people do not read up their attitudes from an internal meter: Rather, attitudes are malleable and susceptible to various context influences. Given that this is the case, the measurement of attitudes needs a scientific training. It is important to know the methods available to assess people's attitudes and the pros and cons of these methods. The context-sensitivity also opens avenues for change. Thus, for example, undesired attitudes leading to unhealthy behaviour can be changed if one understands their nature.

Social objects of cognitive representations, such as other people and groups, are of particular interest in social psychology. The structures and processes involved in forming representations of social objects are the topic of social cognition research.

The seminar will provide students with an overview of the main methods, approaches, and findings from research on attitudes and social cognition, and specifically cover the following aspects:

- Historical developments in attitude research
- The concept of attitudes
- The measurement of attitudes: Classic, explicit measures (e.g., questionnaire methods) and implicit measures (e.g., reaction time measures).
- The origin of attitudes
- Situational influences on the construction of attitudes.
- How attitudes can influence behavior and vice versa
- Attitude change and persuasion
- What is *social* cognition: Representations and evaluations about social objects
- (Automatic) activation of knowledge in social cognition

- Social cognition as co-cognition: Sharing representations with social subjects

730 201 Stereotypes, Prejudice and Discrimination

Type: *Lecture*
Semester: *Fall 2 / Semester III*
Pre-Requisites: *730 101 Introduction to Social Psychology*
Credits Points: *5 ECTS*

Generally speaking, this course is about how individuals think and feel about members of other social categories (e.g., defined in terms of race or ethnicity, gender, sexual orientation, weight, age group, disabilities etc.) and how they behave in relation to them – in other words, about the phenomena that have been termed "stereotypes", "prejudice", and "discrimination". These complex social psychological phenomena involve basic cognitive and affective processes in individuals as much as processes related to group norms, intergroup relations, and social construction in a given socio-cultural context.

The course covers the conceptualization and measurement of stereotypes, prejudice, and discrimination and, with consideration of multiple levels of analysis, their various sources as well as approaches to combating them. More specifically, the topics covered in the course include:

- Prevalence of stereotypes, prejudice, and discrimination in society (e.g., at the workplace, in education); cultural differences
- The target's perspective: consequences of stereotypes, prejudice, and discrimination (e.g., stereotype threat, self-fulfilling prophecy)
- History of research on stereotypes, prejudice, and discrimination
- Research methods and measurement of stereotyping, prejudice, and discrimination (e.g., implicit and explicit measures, old-fashioned and modern racism/sexism)
- Levels of analysis and different theoretical approaches (e.g., social cognition, social norms and identities, inter-group conflict)

- The mental representation of stereotypes: person memory (schema, prototype, exemplar models), models of stereotype change
- Cognitive and affective factors involved in stereotype activation and application (e.g., social categorization, automaticity, mood, motivation, self-esteem)
- Individual differences in stereotypes, prejudice, and discrimination (e.g., personality, authoritarianism, social dominance orientation)
- Social identity: the role of stereotypes, prejudice, and discrimination for group identity
- *I*ntergroup relations: how stereotypes, prejudice, and discrimination depend on the relations between groups in society (e.g., competition for res strategies to combat stereotypes, prejudice, and discrimination (stereotype suppression, contact hypothesis, Jigsaw classrooms, political correctness norms, collective action, societal and legal changes).ources, intergroup threats)

730 202 Social Influence

Type: Seminar
Semester: Spring 2 / Semester IV
Credits Points: 5 ECTS

Social influence is a pervasive topic and implicit aspect of social-psychological research. The seminar is designed to provide an overview of direct and indirect forms of social influence and to allow students to appreciate different theories and findings concerning the underlying processes: Social influence takes place when people change their behaviour caused by real or imagined pressure from others. For instance, we sometimes buy things which we do not really need or even do not want to buy just because we fall prey to a clever advertisement or a smart salesperson. We sometimes behave in certain ways only because others around us do the same thing. Understanding when and why such things happen is the goal of this seminar.

Social psychologists have considered three major categories of social influence: Conformity, compliance, and obedience. Conformity involves changing one's behaviour to match the responses or actions of others, to fit in with others around. Compliance refers to the act of changing one's behaviour in response to a direct request. Obedience is a special type of compliance that involves changing one's behaviour in response to a directive from an authority figure.

This seminar explores direct and indirect strategies of social influence. In particular, strategies that make use of the following principles will be discussed:

- The norm of reciprocation: This rule says that people should try to repay, in kind, what another person has provided them.
- Commitment and consistency: Once they make a choice or take a stand, individuals will encounter personal and interpersonal pressure to behave consistently with that commitment.
- Social proof: People tend to view a behaviour as correct in a given situation to the degree that they see others performing it.
- Liking: People prefer to say yes to requests of others who they know and like.
- Authority: People sometimes obey to authority figures and do things they would never have done without the influence of authorities.
- Scarcity: Opportunities seem more valuable when they are less available, and are, therefore more likely taken.

While this seminar primarily focuses on theoretical explanations and basic research findings in the field of social influence, the implications for various applied settings will be discussed. These include, for instance, advertisement design and consumer behaviour, negotiations in business and oratory techniques in law settings.

Module III: Integrated Approaches to Social and Cognitive Psychology

Semester: 4 - 6
Frequency: yearly
Credits: 25 ECTS

The integrative philosophy of the ISCP program is made more explicit in the advanced courses of this module. Topics such as emotion and motivation, communication and interaction, and the influence of culture on cognition provide in-depth examples of integrating both perspectives. Furthermore, Social Neuroscience enlarges the scope of integration to include the interaction of biological foundations with cognitive and social processes as well.

720 201 Emotion and Motivation

Type: Seminar
Semester: Spring 2 / Semester IV
Credits Points: 5 ECTS

Emotion and motivation are central to our own experience of the world and strongly influence the role we play in it. Emotion and motivation interface with almost all areas of psychology and are also highly relevant in connected domains. Terms such as *emotion*, *mood*, *temperament,* but also *motivation* are often used in ways that reflect our layman's understanding of these phenomena, but that does not take into account the extensive history of scientific research into these concepts.

This course explores the history and tradition of scientific research on emotion and motivation. The course is to provide students with a solid understanding of the competing theoretical approaches at different levels, ranging from biological and neuroscience approaches to social and cultural concepts. In consequence the successful participants shall have the foundations required to analyze the strengths and weaknesses of applying such concepts various contexts, including in empirical research as well as in various applications.

Lastly, they shall be informed of current debates and trends in emotion and motivation research

Major theoretical approaches will be presented for emotion and for motivation. In each case there will be an emphasis on critical analysis and discussion of the premises and inconsistencies of the theories in the light of empirical data. The work of specific researchers or specific methods (e.g., measurement of facial activity) will be pursued in more depth.

Major theoretical approaches to emotions

- Darwinian perspective on emotions.
- Evolutionary basis of emotions and their expressions: Jamesian Perspective of emotion.
- Function of physiological changes associated with emotion: Cannon critique of specificity of physiological patterning; mixed models, specifically the Schachter-Singer theory of emotion and associated concepts, such as excitation transfer.
- Cognitive perspective of emotion: Origin of the modern appraisal construct in the approaches by Arnold and Lazarus, as well as modern multidimensional concepts of appraisal (e.g., Frijda, Smith, Scherer, Roseman); the relationship of cognition and emotion will be discussed particularly in the light of the Lazarus-Zajonc debate; multiple levels of processing.
- Social-Constructivist Perspective: Different levels of social influence on the definition, experience, and expression of emotions will be discussed (e.g. Averill's theory); display rules, feeling rules, and social schemata of physiological responses.

Major theoretical approaches to motivation

- History of the motivation concept
- Biological approaches: Drive concept; examples such as hunger, thirst; physiological underpinnings.

- Behavioural approaches: Learning theory in relation to motivation (Pavlov, Thorndike, Garcia); innate vs. learned behaviour; species-characteristic stereotyped behaviour.
- Cognition and emotion: Goals as knowledge structures
- Motivation and social behaviour: Sociobiology, evolutionary psychology. Cultural perspectives
- Interaction between emotion and motivation

720 301 Communication and Interaction

Type: Seminar
Semester: Fall 3 / Semester V
Credits Points: 5 ECTS

Communication and interaction are processes that can be studied at different levels. This course will initially investigate classical models of communication and introduce key concepts as they are used in psychology and related disciplines. Then communication and interaction will be analyzed from different view points focusing on the biological underpinnings in humans, the evolutionary perspective and specifically brain research on language and paralanguage. Communication and interaction will then be analyzed regarding their interaction in social context and in the light of relevant theories dealing with relationships and roles. Interindividual differences in communication skills will be discussed and applied issues such as training, assessment, and the internet will be touched upon.

Specific topics of this course include:

- Theory of communication (codes, signs, channels, etc.)
- Biological bases of communication
- Communication in animals
- Evolutionary approaches to communication and language
- Neuroscience of language processing, psycholinguistics
- Language and paralanguage/non verbal communication
- The role of communication in the development of social cognition

- Communication in social context
- Cultural aspects of communication
- Regulation of interaction
- Dyadic interaction and communication in groups
- Specific research methods
- Mass media and communication
- Communication and the arts
- Internet
- Nonverbal skills and emotional intelligence
- Communication in business

720 311 Culture and Cognition

Type: Seminar
Semester: Fall 3 / Semester V
Credits Points: 5 ECTS

Cognitive scientists and cultural theorists traditionally have thought about the culture's influences on cognition quite differently. From a Cognitive Science perspective, the study of cognition typically is construed as the search for those aspects of mental experience that are uniformly true for all. In fact for much of the 20th century most psychologists assumed that all normal human beings were equipped with the same set of attentional, perceptual, memorial, learning, and inferential procedures. From a Cultural Studies perspective, there is no avoiding the cultural framework within which individuals think and act. The idea of universal mental experiences is often rejected outright by many cultural theorists; every human thought and perception is uniquely situated within a very specific framework informed by history, tradition, language, social context, etc. The goal of this seminar is to explore the dynamic of both perspectives by asking which aspects of human thinking and judgment are universally the same or culturally shaped.

In particular the following issues and questions will be addressed:

- Definitions of culture and dimensions of cultural comparisons

- Methodological challenges of studying culture's influences
- Culture and systems of thought: Analytic versus holistic thinking
- Causal attribution across cultures: How fundamental is the fundamental attribution error?
- Cultural differences in reasoning: Western logic versus Eastern dialectics
- The self-concept in a cross-cultural perspective: Independent versus interdependent self-construals
- Culture and context: How flexible are cross-cultural variations in self-construals?
- Does thinking about the self influence thinking in general?
- Direct versus indirect communication in different cultures
- Characteristics of cross-cultural interaction: Working in multi-cultural teams
- Intercultural trainings

This seminar provides an introduction to important theoretical approaches from both Cognitive and Social Psychology as well as from adjacent other disciplines, like Anthropology or Ethnology. The discussed research findings may, however, help to improve cross-cultural interaction in many applied fields.

720 302 Social Neuroscience

Type: Seminar
Semester: Spring 3 / Semester VI
Credits Points: 5 ECTS

Social Neuroscience assumes that the mechanisms underlying mind and behaviour will not be fully explicable by a biological or a social approach alone. Hence, the interactions of different levels of organization, ranging from hormonal and biochemical factors, to the central and peripheral nervous systems, the endocrine and the immune systems, individual differences in behaviour, interpersonal interactions, and social and cultural moderators are the main focus of study. None of these levels is considered the best level of analysis for the understanding of human or animal behaviour. The students

shall understand the rationale of and challenges for multi-level analyses and become familiar with examples of such approaches relating to different psychological concepts. This course provides arguments that social and biological approaches are complementary rather than antagonistic. Specifically it will address:

- Philosophical issues regarding the mind-body relationship.
- Basic concepts of the psychophysiological approach.
- Social Neuroscience as an extension of the psychophysiological approach.
- Multilevel integrative analyses of social behaviour.
- Introduction to the relative functions and structure of autonomic and somatic nervous systems in relationship to the central nervous system.
- Social cognition and the brain: Basic processes, specific processes, such as the self, perceiving others, social information processing; description of a module in human extrastriate cortex specialized for face perception; voice-selective areas in human auditory cortex; the human amygdala in social judgment.
- Social Neuroscience of motivation and emotion.
- Social Neuroscience of attitudes and preferences: For example event-related potentials as indicators of negativity bias; face elicited event-related potentials and tomography analyses of affective attitude.
- Biology of social relationships and interpersonal processes: Basic processes, specific processes such as attachment, personal ties, affiliation and sexuality, aggression and social order, individual differences in social behaviour.
- Social influences on biology and health (. e.g., psychoneuroimmunology)
- Problems of the Social Neuroscience concept.
- The difficult relationship of social and biological approaches in psychology.

710 302 Decision Making

Type: Lecture

Semester: Spring 3 / Semester VI

Credits Points: 5 ECTS

Decision making may be defined as intentional and reflective choice in response of perceived needs. Decision making and decision theory are broad and complex areas of great theoretical interest and practical impact in almost all today's disciplines ranging from biology and neuroscience to computer science, economics, marketing, mathematics, political sciences, psychology to sociology or statistics. In some of these disciplines decision making has been studied for more than two centuries.

The focus in this lecture lies on individual decision making. The students learn about basic concepts of decision making, theories of decision making, methods to elicits values/utilities, importance weights/probabilities and shall be able to conduct a decision analysis. New directions in decision making research complement the course. Specifically, the following topics are addressed:

- Elements of decision problems: Values, objectives, sequential decisions, uncertain events, consequences
- Models of problem structure: Fundamental and means objectives, influence diagrams, decision trees
- Models of uncertainty: probability and its assessment, judgments, heuristics and biases, accuracy , calibration
- Models of preference: expected utility theory, prospect theory, models for decision making under certainty, heuristics
- Decision analysis: Value/utility measurement, probability/ weight measurement, Multiattribute Utility Theory (MAUT), conjoint analysis, sensitivity analysis
- Specific topics such as neuroeconomics, decision making in medicine and new approaches in the field of decision making

Module IV: Laboratories in Social and Cognitive Psychology

Semester: 1 - 3
Frequency: yearly
Credits: 10 ECTS

Laboratory courses I and II provide students with both theoretical and hands-on experience with research methods and techniques that are typical for psychological practice and research.

740 101 Lab Course in Experimental Psychology I

Type: Lab
Semester: Fall 1 / Semester I
Credits Points: 5 ECTS

Introduction to experimental methods used in Cognitive and Social Psychology

This course complements the methods training that is shared with all students in the School of Humanities and Social Sciences. It provides both, theoretical and first hands-on experience with techniques and methods that are typical for psychological research.

The course will include an introduction into the logic of basic experimental research designs accompanied by practical hands-on experience with classic research methods and paradigms. How can human judgment and behaviour be assigned to numbers, and how can we deal with these numbers? Specific topics of this course will cover for example unidimensional scaling (incl. Likert, Thurstone, Guttman, Rasch, Mokken), the theory of measurement, the logic of basic research designs, descriptive statistics, signal detection theory, etc.

740 102 Lab Course in Experimental Psychology II

Type: Lab

Semester: Fall 2 / Semester III

Credits Points: 5 ECTS

Prerequisite: Lab Course in Experimental Psychology I (No. 740 101)

Design and conduct of experiments in small groups

Small groups of students develop, conduct, and analyze empirical projects. The choice of the question to be studied, the hypothesis, the operationalization of the variables, and the conduct of the study are to be performed by the students. This includes a much greater focus on and participation in the theoretical derivation of the research question than the Lab Course in Experimental Psychology I.

The course will be divided into group sessions in which common issues relating to the stages of the projects are discussed. In addition, there will be individual meetings with the groups linked to their specific projects. An emphasis is put on the translation of prescientific observations to clear hypotheses and their link to existing theoretical frameworks. Critical analysis and discussion of these elements are of particular importance because it is a specific goal of this course to develop the skills linking theories and hypotheses, the translation of hypotheses to testable operationalizations, and the implications of findings to theories on the other hand. This experience is seen as critical in the long-run for an active and critical perception and use of psychological science.

The results of the studies are to be presented in the form of simulated conference presentations, posters or in the form of a short article (brief report) following the guidelines of the American Psychological Association.

2. Core Component II (Methods and Statistics)

2.1 Structure

While the Core Component I (Psychology) examines common themes and theories in Social and Cognitive Psychology the Core Component II (Methods and Statistics) focuses on common methodological approaches and research techniques. The aim is to enable students to design, conduct, evaluate and present empirical research in the social sciences. To this end, the courses in the methods component provide students with a sound understanding of the concepts and assumptions behind specific methods and research techniques, as well as practical experience in the application of these methods and techniques. Lab classes are an integral part of the coursework. Table 3 summarizes the structure of the Methods Component.

Table 3: Core Component II (Methods and Statistics)

General Goals of Teaching: Designing, Conducting, Evaluating and Presenting Empirical Research		
Module I: Practical Scholarly Skills	Module II: Research Methods and Techniques	Module III: Research Concepts and Methodologies

The methods component consists of 7 mandatory courses organized into three modules. Each module focuses on a different aspect of the research process. The first module concentrates on basic scholarly skills, such as literature searches and retrievals, purposeful reading, summarizing prior research, and information extraction, and teaches students to present and communicate the results of scholarly work effectively. The second module introduces students to quantitative and qualitative approaches to research

design, information collection and processing, and enables them to choose and apply appropriate analytical techniques to empirical data (Module II: Research Methods and Techniques). The third module examines different methodologies, and their underlying concepts and rationales. It addresses issues of data reliability and concept validity, and alerts students to the assumptions implicit in different research methods and techniques (Module III: Research concepts and methodologies).

2.2 Modules and Courses

Module I: Practical Scholarly Skills

Semester: 1 - 6
Frequency: yearly
Credits: 10 ECTS

Learning Outcomes:

Proficiency in finding, evaluating and assessing reliable and relevant academic sources

Competence in locating, evaluating and assessing reliable and relevant qualitative as well as quantitative data

Mastery of relevant practical skills

Mastery of rhetoric and presentation skills

Competence in selecting, developing, and addressing a research question

Competence in scholarly writing

Understanding of and adherence to the ethical principles of academic conduct

Content:

Practical scholarly skills are learned and acquired throughout the duration of the studies. The two courses in this module provide an explicit frame for this continuous learning process. The first course starts with a mandatory component in the first semester that introduces the fundamental principles and procedures of scientific inquiry and scholarly work. Students will learn the criteria, formats and means to find, assess and evaluate academic sources as well as data. They will be enabled to see the common grounds in this respect

shared by the individual disciplines and also learn the aspects that are characteristic for the individual disciplines. The content of the core component is selected in such a way that students receive a common basic training to successfully engage in academic work on the undergraduate level and adhere to the principles of academic integrity. Throughout all six semesters of the program students then can choose from different workshop options equipping students with career related practical skills.

The second course, taught in the last semester, focuses on the skills involved in generating, presenting and communicating research results, and assists students with designing and conducting their first independent research project, the baccalaureate thesis.

In this module students acquire the necessary practical scholarly skills to enter successfully either upon graduate studies or the labor market.

990 100 Academic and Professional Skills

Type: Modules

Semester: Fall 1 / Semester I

Credits 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

Type: Seminar

Semester: Spring 3 / Semester VI

Credits 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: 1 - 3

Frequency: yearly

Credits: 15 ECTS

Learning Outcomes:

Knowledge about fundamental principles and procedures in empirical research

Profound knowledge of the empirical research process

Familiarity with the main procedures for data collection

General knowledge of data analysis approaches and techniques

Profound knowledge of basic statistical techniques to explore relationships and compare groups

Familiarity with statistical software

Content:

The three courses in this module serve as an introduction to the empirical research process and its different qualitative and quantitative research methods. They generate familiarity with the empirical research paradigm and the empirical research process common to all scientific disciplines. The full spectrum of data collection approaches and techniques is discussed bridging the traditional qualitative and quantitative methods divide. An important aspect is the discussion of different approaches and criteria for assessing the quality and the soundness of empirical research, such as representativity, objectivity, reliability and validity. The courses include rigorous training in the selection, application and interpretation of different analytical techniques fostered by practical training with state-of-the-art software for analysis purposes.

990 111 Introduction to Empirical Research and Research Design

Type: Lecture
Semester: Fall 1 / Semester I
Credits 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 the 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.

990 102 Statistical Methods I: Exploring Relationships and Comparing Groups

Type: Lecture / Lab
Semester: Spring 1 / Semester II
Credits Points: 5 ECTS

This course extends the discussion of quantitative methods beyond the introductory level. It reviews some exemplary pieces of quantitative research in the social sciences in order to explain basic statistical concepts and examine their potential and limitations. The topics covered include descriptive statistics, hypothesis testing, regression and correlation, 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 the BA degree from the course *Statistical Methods and Data Analysis (990 121)*. These courses are mutually exclusive due to comparable content.

990 201 Statistical Methods II: Classification, Modelling, and Prediction

Type: Lecture / Lab
Semester: Fall 2 / Semester III
Credits Points: 5 ECTS

This course builds on discussion of quantitative methods in Statistical Methods I. It focuses on multivariate statistical methods, in particular regression analysis, factor analysis, principal component analysis, and cluster analysis. The general objective is to make students intelligent users of the various multivariate statistical methods and enable them to make sensible decisions about when to use which procedure. This course, like the previous one, is divided into lecture and lab sessions. The lectures discuss the theoretical aspects of the different methods. The lab classes teach students how to run the relevant procedures in SPSS, how to interpret the computer output and how to effectively communicate the results of statistical analyses.

Students who successfully complete this course will not receive credits towards the 180 ECTS-credits required for the BA degree from the course *Statistical Methods and Data Analysis (990 121)*. These courses are mutually exclusive due to comparable content.

Module III: Research Concepts and Methodologies

Semester: 3 - 6

Frequency: yearly

Credits: 10 ECTS

Learning Outcomes:

Profound understanding of the logic underlying selected research designs

Practical experience in implementing comparative designs

Practical experience in designing and implementing inductive research designs

Ability to derive theoretical constructs from empirical observations

Ability to develop suitable measurements of theoretical constructs

Ability to develop instruments for data collection and data analysis

Ability to evaluate empirical results in terms of underlying theories and concepts

Ability to evaluate empirical results in the context of empiricist and interpretivist research designs

Content:

The three courses in this module are concerned with the fundamental logic and underlying rationale of different social science methodologies, focusing on the interrelation between research question, design, methods for data collection and analysis, and the evaluation of the research process and the results. This enables students to evaluate research carried out by others as to the appropriateness of the various components and the quality of the results. Moreover, students are also equipped with the skills for developing their own research question, selecting a suitable design and research methods and for critically evaluating the results of their own research. The distinctive contribution of this module consists in the integration of methodological expertise and practical research skills.

While the first course is mandatory, students may choose among the other two. More quantitatively oriented students can take a seminar on ‘Secondary

Data Analysis'. Qualitatively oriented students may opt for 'Qualitative Research: Methods and Methodology'.

990 211 The Logic of Comparative Research

Type: Seminar
Semester: Fall 2 / Semester III
Credits 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. Cross-cutting 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, historicity are used in comparative research. The course also examines the special methodological concerns that arise when taking these factors into account. The course is set up in a seminar style including practical elements to foster competence in the application of empirical data collection process. In the team projects a strong emphasis is put on the cultural diversity of the student body in class that vividly illustrates the importance and challenges of any cross-national or cross-cultural comparison.

990 212 Secondary Data Analysis

Type: Lab
Semester: Spring 2 / Semester IV
Credits 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

Type: *Lecture/Lab*
Semester: *Spring 2 / Semester IV*
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 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

Type: *Lecture/Lab*
Semester: *Spring 2 / Semester IV*
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 Modelling

Type: *Lecture/Lab*
Semester: *Spring 2 / Semester IV*
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

Type: *Seminar*
Semester: *Spring 2 / Semester IV*
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.

3. Component III: SHSS Electives and Languages Courses

In contrast to the two highly standardized and modularized core components the third component of the ISCP-curriculum is more flexible and allows students to further their specific interests in domains related to psychology within the Humanities and the Social Sciences, specifically Integrated Social Sciences (comprising elements of sociology, mass communication, economics, and political science) that study human behavior at a macro level, but also in all other SHSS undergraduate programs who deal with different facets of human behavior.

This component offers students the opportunity to explore some of the links and complementarities between Psychology, the Humanities and the Social Sciences in a logical continuation of the integrative approach of the core curriculum. Students are encouraged to take a broad range of courses, and to sample courses from fields that are not immediately linked with their major.

For further information on the courses available in this component, please check the Jacobs University's Internet site (http://www.jacobs-university.de).

4. Component IV: Courses in Engineering and Science and University Studies Courses

Jacobs University emphasizes the importance of transdisciplinarity. Hence, it is an integral part of the ISCP program that students must also participate in courses offered by Jacobs University's School of Engineering and Science. These may provide a more in-depth look at issues specifically related to contents of the core program, such as Cell Biology (for example to further an interest in neuroscience) or different applications of modeling approaches than those they will encounter in the context of the study of cognitive processes. In fact, a wide range of courses are offered in areas as diverse as mathematics, physics, electrical and biochemical engineering, biochemistry,

geosciences and astrophysics, or computer science, offering much choice for the individual design of students' individual curriculum.

Furthermore, University Studies Courses are offered and they have proven to be of particular interest to students. These transdisciplinary courses confront and couple remote disciplinary perspectives and are particularly important to appreciate the usefulness of transcending traditional domain boundaries. This approach is particularly designed to strengthen skills to solve complex problems in creative and cooperative approaches later in their careers.

For a listing of the courses offered by Jacobs University's School of Engineering and Science, please consult Jacobs University's Internet site (http://www.jacobs-university.de).

IV. Job Perspectives and Graduate Studies

We provide our students with skills and capabilities that make them competitive candidates for careers in various fields, including survey, market or consumer research, in business (as trainers or consultants), politics, administration and academia.

Our students have accepted positions in companies such as Kienbaum Management Consulting, Kraft Foods, Accenture, Deutsche Bank AG, Bentley Motors Limited, and Beiersdorf, and have done research with institutions such as Harvard University, Columbia University, University of Amsterdam or Max-Planck-Institute für Bildungsforschung.

Jacobs Career Services Center offers students, amongst others, an exclusive internship program, individual career counseling, professional skills seminars, Online Job Portal, and employer networking during on-campus recruiting events.