Core 1: Psychological Perspectives

Psychology is everywhere, influencing our thoughts, feelings, and actions. Despite our natural curiosity about human behavior, our intuitive understanding is often flawed. This course aims to demonstrate that psychology is indeed a science, exploring behavior and mental processes through various perspectives and levels of analysis. We'll delve into questions like how emotions like fear and happiness work, how our perceptions shape our world, and how memory and learning function. We'll also ponder intriguing debates, such as the mind-body connection and the roles of nature versus nurture. Through scientific research methods, we'll uncover the complexities of the human mind and behavior, ultimately broadening our understanding of ourselves and others.

Scientific inquiry/critical thinking I

This course focuses on developing scientific reasoning, problem-solving skills, research methods, and statistical analysis. The first module emphasizes critical thinking and understanding statistics.

Critical thinking involves complex cognitive skills essential for understanding ourselves and the world. Students will learn to recognize and overcome biases and fallacies using tools like logic and statistical reasoning. Practical exercises and debates reinforce these skills.

The course covers theoretical concepts in psychology alongside practical skills for scientific inquiry. Students will learn descriptive statistics to summarize data and inferential statistics to draw conclusions from observed data. Topics include probability, sampling, hypothesis testing, and statistical reasoning.

Skills sessions prepare students for independent statistical analysis and introduce basic programming concepts for data manipulation. These foundational skills set the stage for more advanced learning in subsequent modules of the program.

Professional & Life Skills

The bachelor's PLS modules aim to equip students with essential skills and habits for modern academia. Through various activities, students will develop diversity skills, ethics, self-reflection, academic writing, and professional competencies like teamwork and project management. These modules integrate with core courses, enhancing learning experiences.

Students will learn problem-solving skills through collaborative and self-directed methods, preparing them to tackle real-world challenges. Communication and critical reading are emphasized, with assignments evolving to build academic writing proficiency. The curriculum also focuses on developing diagnostic and observational skills essential for psychology professionals.

Life skills are developed through character strength exercises, improvisation, and self-reflection. A personal portfolio encourages continuous self-awareness and growth, fostering resilience and purposeful development. Peer mentoring and discussions further support students in navigating their academic journey.

Core 2: Brain & Cognition

This course explores how our brains shape cognition and behavior in psychology. Students will discover the structure and function of the central nervous system and learn about neuroscientific methods for measuring brain activity. From historical observations to modern technology-driven approaches like

neuroimaging, students will uncover the brain's mysteries. Understanding brain organization helps explain cognitive functions like perception, memory, and emotion. Through experiments, students will tackle questions like how we see the world and why we can't remember everything. This course lays the groundwork for understanding the mind biologically and introduces neurocognitive research methods.

Core 3: Individuals in context

This course explores fundamental questions about human nature and social behavior. Students delve into topics like self-discovery, social cognition, and the impact of culture on personality. Through collaborative discussions and real-life examples, students analyze classic and recent theories in social and personality psychology. Starting with individual perspectives and expanding to group dynamics, the course emphasizes humans' inherent social nature. Attention is given to common social experiences and individual differences, including personality traits and their interactions with society and culture. Additionally, students explore how social and personality psychology can address societal challenges and learn about research methodology and statistics. Overall, the course offers insights into understanding ourselves and our social world.

Scientific inquiry/critical thinking II

In the second SICT module, students will focus mainly on statistics. They'll first learn about common techniques for analyzing different types of research designs with quantitative and categorical variables. Then, they'll delve into analyzing data. The module also covers principles of good research practices, including research integrity and ethical considerations. Students will reflect on academic values and ethical dilemmas, addressing issues like plagiarism and data falsification. This module equips students with essential statistical skills and ethical standards for conducting research.

Core 4: Lifespan psychology

This course explores how children develop psychologically and biologically from conception to old age. Students will examine how factors like genetics and environment influence perceptual, cognitive, language, and motor skills development. Various developmental theories will be discussed. Social and emotional development, attachment, and group processes, particularly in adolescence, will also be covered. The course addresses challenges like psychopathologies such as ADHD and depression, discussing their neurobiology and treatment options, including conventional therapies and newer approaches like psychedelics and mindfulness meditation. Overall, students will gain insight into the complex interplay between nature and nurture in human development and understand how deviations from typical development can lead to psychological disorders.

Portfolio

The bachelor's portfolio is a tool for students to track and manage their competence development with guidance from a mentor-coach. It showcases a variety of work, from academic projects to extracurricular activities, offering a comprehensive view of skills and knowledge. Reflections within the portfolio provide insights into learning processes, challenges overcome, and application of skills in different contexts. Fixed components help to reflect on progress towards goals and identifying areas for improvement. At least four meetings with the mentor-coach in the first year help students discuss their development and practice using the portfolio. Continuous updates include feedback and self-regulation strategies. Reflecting on portfolio content helps identify patterns, assess effectiveness, and explore

academic and career options aligned with personal interests and values. The portfolio is evaluated as part of the bachelor competency exam.

Psychological literacy

This module aims to enhance students' psychological literacy, allowing them to apply psychological science to real-world problems. Students will explore various fields within psychology and their contributions to solving contemporary challenges like climate crisis and diversity. Working in small teams with stakeholders outside academia, students will tackle authentic problems, integrating research-based and community-engaged learning. Tasks include defining problems, analyzing data, consulting literature, and developing interventions. Individual challenges involve envisioning how to apply psychological competencies creatively, exploring entrepreneurship, and pitching proposals. Through teamwork and individual tasks, students will deepen their understanding of psychology's relevance to societal issues and its role in addressing current challenges. This hands-on approach prepares students for interdisciplinary problem-solving in their future careers.

Scientific inquiry/Critical thinking III

In this module, students first learn about reliability analysis and factor analysis, which are essential for psychodiagnostics. Reliability analysis assesses if test questions consistently measure the same thing, while factor analysis reduces many variables to a few underlying factors. Through practical examples, students explore how to create effective questionnaires and adapt tests for diverse clients. They also delve into psychometric concepts like reliability, validity, and sources of misinterpretation. Psychodiagnostics involves decision-making and understanding the ethical guidelines of psychology practice. Students also study Bayesian statistics and the professional code of conduct. Additionally, they learn about single-case experimental design for intervention planning. This module equips students with crucial skills for conducting assessments and designing interventions in psychological practice.

Professional & life skills II

Throughout this course, students will enhance their communication and professional skills while focusing on clinical and psychodiagnostic practices. They'll engage in various writing and presentation tasks to improve their ability to convey information effectively. In the clinical and psychodiagnostic skills section, students will learn about communication techniques essential for conducting conversations in psychological settings. They'll practice skills like active listening, asking questions, and showing empathy. Additionally, students will delve into the diagnostic process, understanding how psychologists address referral questions, administer tests, and interpret data ethically. In the second year, the focus shifts to project-based learning, career development, and teamwork. Students will work on real-life problems, enhancing their problem-solving abilities and intercultural collaboration skills. Elective courses in the fifth semester offer opportunities to further specialize and broaden academic knowledge. Through continuous reflection and mentorship, students will be prepared for their future academic and career paths.

Core 5: Mind

In this course, students explore the fundamentals of computational thinking and its application in modeling the mind. They delve into how psychological theories are often framed as computational models for clarity and usefulness, given modern computing capabilities. Building on first-year concepts,

students examine auditory perception, visual attention, learning, and decision-making models. The course also addresses debates in cognitive science along with emerging topics like human-machine interaction and brain-computer interfaces. Moreover, students discuss philosophical issues surrounding consciousness, awareness, and free will, exploring neurophysiological correlates and contemporary research. Through these discussions, students gain insight into the evolving relationship between humans, technology, and psychological practice.

Scientific Inquiry/Critical Thinking IV

This course focuses on the importance of computing in psychology, introducing programming skills essential for data analysis. Students learn to break down complex problems into smaller ones and develop algorithms to solve them, using Python. The course covers statistical techniques and logistic regression for analyzing data from psychological studies. Emphasis is placed on understanding confounding effects and interactions between predictor variables. Practical exercises allow students to apply these techniques to real or realistic data. Additionally, students must participate in scientific research as test subjects for a total of 20 hours, contributing to their understanding of psychological methods. The course aims to equip students with programming skills and statistical knowledge relevant to various fields of psychology.

Research project

Throughout this 12-week research practical, students will experience the entire process of conducting psychological research in small groups. Students will start by delving into existing literature, formulating research questions, and designing studies. After obtaining approval, students will recruit participants and collect data. Then, they'll analyze the data, interpret the results, and draft a research report following APA guidelines. In the final weeks, students will refine their reports based on feedback and prepare to present their findings at a symposium. During lectures, attention will be paid to research methods, ethics, article writing, and scientific communication. Students will also receive guidance on presenting and visualizing statistical findings. The course concludes with students presenting their research through presentations or posters.

Electives

In the third year of their bachelor's program, students have the chance to explore elective courses or pursue a minor at UM or other universities. These electives offer flexible learning formats, including reading groups, workshops, and internships, deviating from traditional problem-based learning. The aim is to broaden and deepen students' understanding of psychology while aligning with their interests. Additionally, students can experience studying at different institutes, fostering a broader academic perspective. Information about available electives and the application process is accessible on AskPsy.nl by April 2025.

Professional & life skills III

Throughout the academic year, students will have multiple opportunities to improve their writing and presentation skills, eventually leading to the completion of a bachelor's thesis. This thesis can either be a literature review article or a study conducted under supervision, following the empirical cycle. Students must start preparing for the thesis early in their third year and find a supervisor through the bachelor thesis matching system.

For students specializing in clinical psychology, training sessions focus on becoming student practitioners, including conducting psychological interviews and using basic therapy techniques. Other specializations offer activities to prepare for career entry or further education.

In periods 4 and 5, specialization-specific skills are integrated, and in the first week of period 6, students participate in an Arts & Science Outreach event to showcase their thesis research to peers and the community, marking the end of their bachelor's journey.

Semester 6 Brain, cognition and behaviour specialisation

The Brain, Cognition, and Behavior specialisation explores the link between mental and brain functioning. Understanding mental processes like perception, memory, and emotion is improved by studying their effects on the brain. Brain injuries, aging, and disorders like dyslexia offer insights into how the brain influences mental performance. In the lab, techniques like magnetic stimulation reveal how altering brain activity affects behavior, aiding in understanding brain functions. Students learn various research methods in cognitive neuroscience and neuropsychology, exploring topics like perception, memory, and motivation. By understanding how the brain and mind interact, students gain insights into mental processes and potential treatments for disorders.

Psychopharmacology and Biopsychology (164 hours, period 4)

Psychopharmacology and Biopsychology focuses on understanding the effects of psychoactive drugs and their neurobiological mechanisms to comprehend psychiatric and neurological disorders. It covers major classes of drugs used in disorders like anxiety, depression, and schizophrenia, as well as recreational drugs such as cannabis and LSD. Discussions on current controversies and emerging trends in biopsychology, including neuroplasticity and ethical issues, complement the module. By studying drug effects and mechanisms, students gain insight into the treatment and side effects of various disorders, enhancing their understanding of current theories in neuroscience and psychology.

Brain Science Methods (164 hours, period 4)

This course aims to understand how cognitive functions like perception, attention, and memory arise from brain activity. Through laboratory experiments, students observe behavior and brain activity. They analyze how specific cognitive tasks trigger brain changes and use methods like reaction time measurement and decision-making analysis to understand cognitive processes. Non-invasive brain measurement techniques like EEG and fMRI provide rich data on brain activity. Moreover, methods like neurofeedback allow individuals to control their brain activity, aiding in clinical applications. Each week, students learn different research methods, compare them, and discuss how combining methods can offer comprehensive insights into cognitive functions.

Seeing a memory in the brain: Neural correlates of perception, attention, learning & memory (164 hours, period 5)

This course explores how memory influences perception and vice versa. It delves into how our brains process sensory information and prioritize certain stimuli through attention. For instance, recognizing a friend's face in a crowd relies on both bottom-up sensory cues and top-down processes like expectations. Damage to specific brain areas can impair facial recognition, highlighting the intricate workings of memory and perception. The course builds upon previous knowledge of sensory perception,

brain anatomy, and experimental design. Students will learn how attention, learning, and memory intersect in the brain, shaping our perception of the world around us. It covers concepts from neuroscience, cognitive psychology, and clinical psychology to provide a comprehensive understanding of memory and perception.

Action and Motivation (164 hours, period 5)

This course explores how the brain organizes voluntary, goal-directed actions, such as motor movements. Students learn about the different brain parts involved in decision-making for actions, including the cerebral cortex and basal ganglia. Students will learn about the hierarchical organization of the motor system. The course also covers cognitive aspects, such as translating options into actions, and the motivational side of action selection, including value-based decision-making and emotional responses tracked by the amygdala. Discussions include the regulation of emotions and how disorders like Parkinson's disease or anxiety impact behavior. Through studies on animals and humans, students gain insights into how various brain subsystems contribute to meaningful behavior and its disorders.

Semester 6 Clinical specialization

The *clinical specialisation* will enable students to acquire skills and theoretical knowledge of topics in mental health, including the psychodiagnostic process and psychodiagnostic data collection, psychometrics and decision making, care needs assessment and treatment, legal and ethical issues related to the psychodiagnostic process, and communication skills and (psychological) conversational skills related to mental health care. Students are expected to adopt a scientific attitude with regard to tests and methods used to diagnose and treat people with personality and/or mental disorders; learn to take educated decisions on diagnostics or treatments; and learn to make recommendations regarding the course of action to be followed for a specific patient/client.

Diagnostics in clinical psychology (168 hours, period 4)

This course allows students to embark on a journey through the fundamentals of diagnostics in clinical psychology. This course provides an in-depth exploration of essential topics related to diagnostics in clinical psychology, encompassing knowledge of e.g., a critical reflection on the DSM-5, decision-making models, differential diagnosis, comorbidity, psychopathology, and transdiagnostics. It will also cover cultural diagnostics, diagnostics in various healthcare contexts (children, adults, the elderly), diversity in diagnostics (e.g., individual versus systemic diagnostics), and screening. The course also highlights decision theory and students are asked to reflect on ethical and societal aspects of diagnostics. Finally, the course prepares students for the role of a psychologist in multidisciplinary teams.

Treatment in clinical psychology (168 hours, period 5)

The profession of effective treatment in clinical practice is to be explored by the students enrolled in this course. It offers students insights into various treatment modalities and personalized and protocolized therapies, available in the field of clinical psychology. Students will explore concepts like evidence-based and evidence-informed practices, effect measurement, experience sampling, and Routine Outcome Monitoring to pursue ongoing improvement. They will learn how to design a randomized clinical trial and single case experimental designs. Also they will explore some prevention strategies. Get ready to change lives and make a positive impact in clinical psychology.

Critical reflection on clinical practice (112 hours, period 4 and 5)

This course delves further into evidence-based diagnostics and treatments, therapy effect studies, psychometrics, and bridging the gap between science and practice. Student will start to develop critical thinking skills for integrating science into clinical work. They will learn to navigate the complexities of applying group data to individuals, and stay current with best practices. Also, they will explore the ethics of diagnostics and offering treatment, understand professional codes, and reflect on the societal and clinical significance, as well as potential risks and forms of misuse.

Clinical skills (224 hours, period 4 and 5)

In this clinical skills course, students will learn about the process patients go through before receiving treatment for mental health issues. It starts with interviewing techniques to diagnose patients, who may be children with parents or adults seeking help. The course covers interviewing skills, observation, and hypothesis testing to establish diagnoses following professional standards. Students also learn psychodiagnostic techniques, formulating questions, administering tests, and interpreting results. Finally, students develop treatment plans through cognitive behavioral analysis and discuss them with patients. Throughout, students reflect on their skills and the pros and cons of different diagnostic methods.

Semester 6 Transdisciplinary specialization

In this specialization, students delve into various fields of psychology like work, legal, and health psychology, while also tackling complex societal issues known as wicked problems. These problems, such as racism, misinformation, and the digital divide, require a systemic approach that considers interactions between multiple factors. Students learn to collaborate across disciplines to interpret and address these challenges effectively. The specialization builds on previous coursework by focusing on implementing sustainable solutions to these problems, including evidence-based policies. Students develop skills in systems thinking and innovation to create positive change in diverse contexts. Additionally, they learn to engage in socio-political processes to ensure psychology contributes meaningfully to addressing today's pressing issues.

Psychology at the fringes (224 hours, period 4 and 5)

In this course, students explore how psychology intersects with various disciplines like economics, law, and health science, providing fresh insights into complex global issues. They learn how psychologists contribute to interdisciplinary fields such as environmental science and behavioral economics, enriching scientific debates and problem-solving approaches. The module covers topics like reasoning, decision-making, creativity, teamwork, and behavior change, deepening students' understanding of psychological phenomena across different contexts. By studying these intersections, students gain knowledge to navigate complex global challenges and recognize the pivotal role psychologists play in addressing them. They also explore the psychology of ineffable experiences like aesthetics and religion, broadening their perspective on human behavior and cognition.

Designing Policy Measures for Wicked Problems: A Transdisciplinary Approach (224 hours, periods 4 and 5)

In this module, students collaborate with external stakeholders to address complex societal problems like climate change or mental health stigma. They select a problem and conduct research using the PATH model (Problem, Analysis, Test, Help). Consulting experts from various fields, students redefine the problem and design evidence-based interventions. They consider the ethical implications, potential impacts, and challenges of their proposals, proposing monitoring mechanisms and strategies for implementation. Using AI avatars, they explore different perspectives and present their proposal to a panel of experts for feedback and revision. Through this process, students learn to develop viable policy measures to tackle real-world issues, integrating knowledge from psychology and other disciplines.

Transdisciplinary Skills (168 hours, period 4 and 5)

This course emphasizes incorporating psychological principles into various undergraduate programs to enhance skills like problem-solving, communication, and lifelong learning. With a focus on Sustainable Development Goals (SDGs) and psychological resilience, it prepares students for an evolving workforce impacted by artificial intelligence (AI). It offers transdisciplinary training, including systems thinking, project management, and science communication. Students learn qualitative research methods, teamwork, and future-oriented skills like foresighting and change management. These skills are vital for completing a policy intervention project and assert students' roles as psychologists within diverse teams, aligning with the program's emphasis on holistic skill development across disciplines.