



Jerusalem Multidisciplinary College (JMC) Institutional Research Profile

The Jerusalem Multidisciplinary College (JMC) is an academic institution committed to interdisciplinary, socially engaged, and translational research. The College integrates basic science, clinical research, social sciences, technology, education, and design to address complex contemporary challenges in health, society, digital transformation, and policy. Faculty collaborate with healthcare systems, industry, government, and international academic partners to generate knowledge that informs practice, innovation, and decision-making.

JMC promotes methodological diversity, combining quantitative, qualitative, mixed-methods, computational, and experimental approaches. The College's research ecosystem emphasizes innovation, inclusivity, and real-world impact across diverse populations and global contexts.

Major Research Clusters

1. Health, Medicine, and Human Development

This cluster integrates biomedical science, clinical research, neurodevelopment, rehabilitation, and health systems research. Faculty examine biological, developmental, and environmental determinants of health across the lifespan, with a strong focus on prevention, early diagnosis, and translational care.

- Genetics, immunology, microbiology, and translational biotechnology
- Neurobiology, neurodevelopmental disorders, autism, and neuroteratology
- Mitochondrial function, anesthesia, and neurological mechanisms
- Child development, trauma, and resilience
- Communication, hearing, speech, and cognitive functioning
- Visual impairment, visual function, visual quality, visual rehabilitation
- Teratogenic risk factors and developmental health
- Health policy, quality, and healthcare system performance

2. Digital Technologies, Artificial Intelligence, and Data Science

JMC has a strong institutional focus on the integration of artificial intelligence, machine learning, and computational methods across healthcare, education, public policy, and industry. Research aims to advance predictive analytics, decision-support systems, and digital transformation in both public and private sectors.

- Artificial intelligence and machine learning



- Natural language processing and computational linguistics
- Medical informatics and clinical decision support
- Digital health, telemedicine, and mHealth
- Data mining, statistical modeling, and forecasting
- Human–computer interaction and usability
- AI in education and professional training
- Cybersecurity and information systems

3. Vision, Sensory Systems, and Rehabilitation

This cluster brings together optometry, communication disorders, neuroscience, and rehabilitation research. It focuses on sensory processing, functional recovery, and assistive interventions that improve quality of life by applying clinical translation and interdisciplinary care models.

- Ocular surface disease, myopia, keratoconus, and anterior segment disorders
- Binocular vision, eye movements, and visual perception
- Traumatic brain injury and visual rehabilitation
- Hearing and auditory processing
- Speech and language disorders
- Technology-assisted diagnosis and intervention
- Patient-centered outcomes and quality of life

4. Society, Policy, and Human Behavior

Research studies addressing social, psychological, economic, and political processes shaping contemporary societies. Faculty investigate governance, resilience, conflict, identity, and social innovation in local and global contexts contributing to evidence-informed policymaking and social resilience

- Trauma, resilience, and sociopolitical stress
- Migration, culture, and multicultural societies
- Public policy, welfare, and well-being
- Media, communication, and political behavior
- Security, terrorism, and international relations



- Organizational behavior and leadership
- Labor markets and the future of work
- Consumer behavior and decision-making

5. Innovation, Design, and Sustainable Development

JMC integrates design, entrepreneurship, and technological innovation to develop solutions for healthcare, industry, and society. Faculty collaborate with clinical, technological, and industrial partners to translate research into products, services, and social impact.

- Inclusive and rehabilitation design
- Medical devices and assistive technologies
- Advanced manufacturing and digital fabrication
- Human-centered and participatory design
- Information design and data visualization
- Entrepreneurship, startups, and innovation ecosystems
- Sustainable technologies and material culture

Institutional Vision

JMC aims to become a leading center for interdisciplinary research and innovation that bridges science, technology, design, and society. Through strategic partnerships, digital transformation, and international collaboration, the College seeks to address major global challenges, including health disparities, technological change, social resilience, and sustainable development.