



Degree of Master of Science (By Research)
List of Potential Research Topics
Intake October 2024

Applicants for the M.Sc. (by Research) course offered by the Faculty of Health Sciences are advised to choose a research topic from the following list and to contact the respective Department offering the research topic at the earliest opportunity so that they can receive the necessary guidance. If an applicant would like to propose a research topic not listed below, the applicant may discuss this with the respective Head of Department.

Applied Biomedical Sciences

- Computational and Experimental Methods in Erythropoiesis - Prof. Joseph Borg
- Dissecting the Molecular Mechanisms of Blood Transcriptomic Endotypes in Sepsis - Dr Brendon Scicluna
- High Throughput Sequencing - Prof. Stephanie Bezzina Wettinger
- Host Response Biomarkers for Diagnosis and Risk Stratification in Sepsis - Dr Brendon Scicluna
- Genetics of Myocardial Infarction - Prof. Stephanie Bezzina Wettinger
- Genetics of Osteoporosis and Musculoskeletal Disorders - Prof Melissa Marie Formosa
- Identification of Single Chain Variable Fragment (scFv) Antibodies Specific to Immune Checkpoints by Phage Display - Prof. David Saliba
- Mechanisms of Inflammatory Adaptations in Innate Immune Cells - Dr Brendon Scicluna
- Multi Omics of Space Flight Experiments and Model Organisms - Prof. Joseph Borg
- Regulation and Control of Globin Gene Switching - Prof. Joseph Borg

Clinical Biomechanics

- Cadeveric Foot - Prof. Alfred Gatt
- Gait Analysis - Prof. Alfred Gatt
- Motion Capture - Prof. Alfred Gatt
- Material Testing - Prof. Alfred Gatt

Communication Therapy

- Assessing the Efficacy of GraphoGame using Digital Game-based Learning among Young Readers - Dr Rachael Agius
- Bilingual Receptive and Expressive Lexical Skills in Maltese School-Aged Children - Prof. Daniela Gatt
- Comparing Reading Formats in a Digital Era:- On-Screen vs. Print Reading - Dr Rachael Agius
- Comparison of Current Speech-language Therapy Services in Malta with Global Trends - Prof. Helen Grech
- Exploring the Impact of GraphoGame on Early Literacy Development in Bilingual Children - Dr Rachael Agius
- Language Abilities in Maltese Children with DLD - Prof. Daniela Gatt
- Lexical and Narrative Skills in Maltese Bilingual Children - Prof. Daniela Gatt
- Sentence Recall and Nonword Repetition Tasks as Clinical Markers for Identification of Maltese Children with Developmental Language Disorder - Prof. Helen Grech
- The Adaptation of the Aphasia Impact Questionnaire (AIQ, Concise) to the Maltese Context - Dr Ritienne Grima
- The Adaptation of the TORPAM Phonological Awareness Tests to 5 - 7 Year-Old Maltese Children - Dr Rachael Agius
- The Impact of Technology on Reading Habits - Dr Rachael Agius
- Validation of the MESA on Diverse Clinical Populations - Prof. Helen Grech

Food Sciences and Nutrition

- Alternative Proteins - Dr Petra Jones
- Antimicrobial Packaging Applications in Food Science - Dr Foteini Pavli
- Aspects of Lifestyle/Dietary/Purchasing Behaviours and/or Weight Management - Dr Claire Copperstone
- Dietary Patterns and Other Lifestyle Factors in Cancer Prevention - Dr Petra Jones
- Dietary Interventions in the Management of Chronic Conditions (Diabetes, Cancer, Neurodegenerative Diseases) - Dr Mario Caruana Grech Perry
- Edible Films and Coatings for Sustainable Packaging - Dr Foteini Pavli
- Food Fraud and Safety Issues Past and Present - Prof. Anna McElhatton
- Inequalities, Food Security and Sustainable Diets - Dr Claire Copperstone
- Maternal Nutrition: Preconception Care, Pregnancy and Lactation - Dr Petra Jones
- Molecular Interventions in Lifestyle-Related Diseases - Dr Mario Caruana Grech Perry
- Probiotic Solutions for Functional Foods - Dr Foteini Pavli
- Tackling Biofilms in Food-Related Abiotic Surfaces - Dr Foteini Pavli
- Understanding the Functional Activity of Polyphenols using Omics-Based Approaches - Dr Mario Caruana Grech Perry

Health Systems Management and Leadership

- Evidence-Based Healthcare - Dr Patricia Vella Bonanno
- Financial Protection - Dr Kenneth E. Grech
- Health Systems Development and Resilience - Dr Kenneth E. Grech
- Leadership and Patient Safety - Prof. Sandra Buttigieg
- Medicines Management - Dr Patricia Vella Bonanno
- Regulation in Healthcare - Dr Patricia Vella Bonanno
- Second Victims and Patient Safety - Prof. Sandra Buttigieg
- Teamwork and Patient Safety - Prof. Sandra Buttigieg
- The Relevance and Effectiveness of the Treatment Abroad Service Provided by the National Health System - Dr Miriam Dalmas

Midwifery

- Antenatal Education - Dr Georgette Spiteri
- Choice, Control and Continuity of Midwifery Care - Dr Josephine Attard
- Gender in Parenthood - Dr Georgette Spiteri
- Intensive Care of the Neonate - Dr Rita Pace Parascandalo
- Neonatal Resuscitation - Dr Rita Pace Parascandalo
- Newborn Care - Dr Rita Pace Parascandalo
- Post-traumatic Stress Associated with Childbearing - Dr Nicole Borg Cunen
- Preparation for Parenthood from Preconception to the First Postnatal Year - Dr Georgette Spiteri
- Preterm Birth - Care of the Preterm Infant and the Family - Dr Rita Pace Parascandalo
- Social Aspects of Childbirth - Dr Josephine Attard
- Social Determinants Involved in the Transition to Parenthood - Dr Georgette Spiteri
- Spiritual Care and Compassion - Dr Josephine Attard
- The Tie to the Unborn Child in Expectant Mothers and Fathers - Dr Nicole Borg Cunen
- Women's Health - Dr Rita Pace Parascandalo

Nursing

- Advanced Nursing Practice - Dr Corinne Scicluna
- Anthropological and Social Perspectives in Nursing - Dr Catherine Sharples
- Antimicrobial Resistance - Dr Ermira Tartari Bonnici
- Antimicrobial Stewardship - The Role of the Nurse/Competencies for Nurse Education - Approach) - Dr Ermira Tartari Bonnici
- Application of Ethical Theory in Practice - Dr Adrienne Grech
- Any, or a Combination of, Contemporary Challenges in the Nursing Workforce:- Employee Burnout, Staff Retention, High Turnover, Shortage, Distress, Wellbeing - Dr Stephen Ebejer
- Cancer Care - Dr Joanna Depares
- Catheter-Associated Urinary Tract Infections - Dr Ermira Tartari Bonnici

- Catheter-Related Bloodstream Infections (Peripheral/Central Catheters; Bundle Community Health Care - Dr Norma Josephine Delezio
- Continence Promotion - Dr Anthony Scerri
- Creativity and Innovation in Nursing and Healthcare - Dr Stephen Ebejer
- Creativity and Reflexivity in Nursing; The Social Aspect of Care - Dr Sharon Martinelli
- Critical Care Nursing - Dr Josef Trapani
- Curriculum Development, Evaluation and Accreditation - Dr Maria Cassar
- Death and Dying - Dr Joanna Depares
- Dementia Care - Dr Anthony Scerri
- Diabetes Care - Prof. Roberta Sammut
- Diabetic Foot - Dr Corinne Scicluna
- Drug Administration - Dr Corinne Scicluna
- Emergency Nursing - Dr Trevor Abela Fiorentino
- Emerging Viral Infectious Diseases Outbreaks/Pandemics (COVID-19) - Dr Ermira Tartari Bonnici
- Emotional Intelligence/Emotional Competence in Nursing - Dr Roderick Bugeja
- Empowerment in Nursing - Dr Corinne Scicluna
- Equity and Equitable Healthcare - Dr Joanna Depares
- Ethical and Legal Issues/Challenges in Nursing - Dr Adrienne Grech
- Ethical Climates in Healthcare - Dr Adrienne Grech
- Evidence Based Nursing - Dr Roderick Bugeja
- Facilitating Assessment and Learning in Virtual Learning Environments - Dr Michelle Camilleri
- Genetic Nursing - Dr Daren Chircop
- Genito-Urinary Medicine/Nursing - Dr Roderick Bugeja
- Hand Hygiene/Electronic Automated Hand Hygiene Monitoring -
- Health Behaviour Modification/Health Promotion - Dr Roderick Bugeja
- History of Nursing - Dr Catherine Sharples
- Implementation of Evidence-based Medicine/Nursing in Daily Practice - Dr Anthony Scerri
- Informal Learning in Practice - Dr Michelle Camilleri
- Interprofessional Collaboration - Dr Anne C Cini
- Issues related to Death and Dying and End of Life Care - Dr Joanna Depares
- Issues related to Palliative Care - Dr Joanna Depares
- Issues related to Refugee Healthcare - Utilisation and Provision - Dr Joanna Depares
- Leadership - Dr Corinne Scicluna
- Learning from Errors in a Variety of Clinical Contexts - Dr Stephen Ebejer
- Management of Care - Dr Corinne Scicluna/Dr Catherine Sharples
- Migration and Healthcare Provision - Dr Joanna Depares
- Moral Resilience and Courage in Nursing - Dr Adrienne Grech
- Nurse Migration, Regulation and Registration - Dr Maria Cassar
- Nursing Care of Older Persons in Formal Care Settings - Dr Anthony Scerri
- Nursing Ethics - Dr Adrienne Grech
- Nursing Rituals and Change - Dr Catherine Sharples
- Online Teaching and Learning - Dr Josef Trapani

- Organisational Safety Culture and Patient Safety - Dr Stephen Ebejer
- Palliative Care - Dr Joanna Depares
- Perioperative Care and Operating Theatre Nursing - Dr Stephen Ebejer
- Politics in Nursing - Dr Corinne Scicluna/Dr Catherine Sharples
- Pre-Hospital Emergency Care - Dr Trevor Abela Fiorentino
- Prevention of Surgical Site Infections - Dr Ermira Tartari Bonnici
- Professional Development - Dr Michelle Camilleri
- Professionalisation, Autonomy and Accountability in Nursing - Dr Catherine Sharples
- Public Health - Dr Norma Josephine Delezio
- Rehabilitation - Dr Anthony Scerri
- Reproductive Health - Dr Roderick Bugeja
- Respiratory Care Nursing - Dr Daren Chircop
- Resuscitation Education - Dr Trevor Abela Fiorentino
- Self-Management of Chronic Conditions - Prof. Roberta Sammut/
Dr Norma Josephine Delezio
- Self-Management of Chronic Illnesses - Dr Norma Delizio
- Sex, Sexuality and Sexual Health/Behaviours - Dr Roderick Bugeja
- Sexuality and Relationships Education - Dr Roderick Bugeja
- Simulation Education - Dr Trevor Abela Fiorentino
- Skin and Wounds - Dr Corinne Scicluna
- Specialist Nursing - Dr Corinne Scicluna
- Ventilator-Associated Pneumonia - Dr Ermira Tartari Bonnici
- Virtual Reality/Artificial Intelligence in Nursing Education - Dr Roderick Bugeja

Occupational Therapy

- Alzheimer's Disease and Related Dementias - Dr Marjorie Bonello
- Availability and Accessibility of Play and Communal Spaces - Dr Nathalie Buhagiar
- Children's Participation in Home, School and Community - Dr Nathalie Buhagiar
- Clinical Reasoning in Acute Physical Occupational Therapy Settings -
Dr Rene Mifsud
- Ergonomics and Occupational Therapy - Dr Marjorie Bonello
- Evaluating School Based Occupation Therapy Services - Dr Nathalie Buhagiar
- Exploring Occupational Engagement and Balance in Children with and without
Disability - Dr Nathalie Buhagiar
- Occupation-Based Resources and Technology - Dr Rene Mifsud
- Outcomes of Occupational Therapy Rehabilitation - Dr Rene Mifsud
- Parenting Children with Disability - Dr Nathalie Buhagiar
- Practice Based Education - Dr Marjorie Bonello
- Pre-school Children, Play and Practice - Dr Nathalie Buhagiar
- Strengths and Challenges in Engaging in Childhood Occupations - Children's
Voices - Dr Nathalie Buhagiar
- Supported Community Living of Older Adults - Dr Rene Mifsud

Physiotherapy

- Physiotherapy for Older Persons - Dr Stephen Lungaro Mifsud/Dr John Xerri de Caro

Podiatry

- Clinical Biomechanics - Prof. Alfred Gatt
- Diabetes Foot Screening - Prof. Cynthia Formosa
- Diabetic Foot Biomechanics - Prof. Alfred Gatt
- Diabetic Footwear - Dr Stephen Mizzi
- In Shoe Micro-Climate - Dr Stephen Mizzi
- Nail Surgery - Dr Anabelle Mizzi
- Peripheral Arterial Disease - Dr Anabelle Mizzi
- Podiatric Dermatology - Dr Stephen Mizzi
- Podiatric Sports Medicine - Prof. Alfred Gatt
- Podogeriatrics - Prof. Cynthia Formosa
- Podopaediatrics - Prof. Cynthia Formosa
- The Diabetic Foot - Prof. Cynthia Formosa
- Thermography - Prof. Alfred Gatt/Dr Stephen Mizzi
- Vascular Assessment of the Lower Limbs - Dr Anabelle Mizzi

Radiography

- Advanced Practice in Radiotherapy - Dr Guilherme Couto
- Advanced Practice /Role Development/Role Extension in Radiography - Prof. Paul Bezzina, Dr Jonathan L Portelli/Prof. Francis Zarb
- AI in Medical Imaging and Radiotherapy - Dr Susan Mercieca/Dr Jonathan L. Portelli
- Applications of Digital Health Technologies to Improve Hospital Workflows and Treatment Outcomes - Dr Susan Mercieca/Dr Jonathan L Portelli
- Assessment of Maltese Patients' Perceptions of the Educational Requirements of Therapy Radiographers - Prof. Paul Bezzina
- Benefit-Risk Communication in Radiography - Dr Jonathan L. Portelli
- Cancer Survivorship - Dr Gerbert van Dijk
- Dose/Risk Optimisation - Prof. Francis Zarb/Prof. Paul Bezzina/
Dr Jonathan L. Portelli
- Hybrid Imaging Involving Molecular Imaging Modalities - Dr Karen Borg Grima
- Image Quality - Prof. Francis Zarb
- Management of Uncertainties in Radiotherapy Planning - Dr Susan Mercieca
- Nuclear Medicine Imaging - Dr Karen Borg Grima
- Paediatric Radiography - Dr Jonathan L. Portelli
- Patient Care/Patient Experience in Radiography - Prof. Paul Bezzina/
Dr Jonathan L. Portelli/Dr Karen Borg Grima
- Patient Care/Patient Experience in Radiotherapy - Dr Gerbert van Dijk

- Patient Review - Dr Guilherme Couto
- Quality of Life of Cancer Patients, Survivors and Carers - Dr Gerbert van Dijk
- Radiation Safety - Prof. Paul Bezzina/Dr Jonathan L. Portelli
- Radiobiology in Radiotherapy - Dr Guilherme Couto
- Radiography Research - Prof. Paul Bezzina/Prof. Francis Zarb
- Radiographers' Competencies and Education - Prof. Paul Bezzina/
Dr Jonathan L. Portelli
- Radiopharmacy Science and Procedures - Dr Karen Borg Grima