UNIVERSITI MALAYA

Research Cluster Office

Towards Impactful Interdisciplinary Research

GUIDELINES

Universiti Malaya
Impact-Oriented Interdisciplinary Research
Grant Programme (IIRG)

PART 1 – GRANT APPLICATION

1.1 Background of the Universiti Malaya Impact-Oriented Interdisciplinary Research Grant Programme (IIRG)

The Universiti Malaya Impact-Oriented Interdisciplinary Research Grant Programme aims to change the research culture within UM to a more integrated interdisciplinary approach.

Interdisciplinary research can be defined as a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts and/or theories from **two or more disciplines or bodies of specialized knowledge** *to advance fundamental understanding or to solve problems* **whose solutions are beyond the scope of a single discipline or area of research practice.**

(https://www.nsf.gov/od/oia/additional_resources/interdisciplinary_research/definition.jsp)

In the context of the IIRG, researchers must come from at least two (2) different disciplines and two (2) different faculties.

1.2 Type of Research Grant

1.2.1 The Universiti Malaya IIRG

The research team should demonstrate interdisciplinarity by including researchers from different disciplines working together to solve a common research issue. The research programme is expected to carry out research in a **minimum of three (3)** Work Packages (WP). Each work package will be coordinated by a Work Package Lead (WPL)

Lecturers, senior lecturers and Associate Professors are **eligible** to apply as Programme Leader (PL) or WPL.

Team members can comprise academic staff at all levels including Professors as well as research officers and post-docs.

The research team must demonstrate an outstanding research track record. Focus will be on the team's performance over the past **three (3)** years.

Roles and Responsibilities of PL:

- Coordinate and monitor research programmes and ensure that all work packages are progressing in accordance to the work schedule.
- Ensure good rapport between all members of the work packages.
- The PL is required to meet with the team members regularly (e.g. quarterly) to ensure the connectivity and interdisciplinarity of the work packages.

Role and Responsibilities of Work Package Lead (WPL):

- Coordinate research activities and expenditure of their respective Work Package
- Report the progress of WP to PL according to the dates/timeline stated in the offer letter.
- WPL is expected to cooperate with PL in ensuring the connectivity and interdisciplinarity of the work packages.

The PL must lead one of the work packages. A next appointed Leader must also be named from among the WPL.

A researcher can only be a WPL for one work package in any given cycle.

Programme Leaders and Sub-Programme Leaders of ongoing IIRG grants are **not eligible** to apply as PL.

A researcher who is currently attached to any other grant is **eligible** to apply for the Universiti Malaya Impact Oriented Interdisciplinary Research Programme.
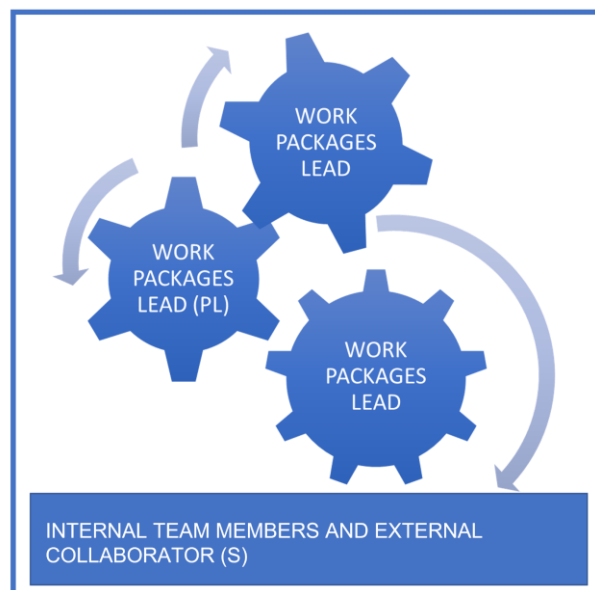

Figure 1: The connectivity of the work packages as a whole project for IIRG Cycle 5 2022.

1.3 Objectives of the Research Grant

The specific objectives of the Universiti Malaya Impact-Oriented Interdisciplinary Research Grant Programme:

- To strengthen **niche** areas and nurture emerging **thrust** areas in UM
- To encourage interdisciplinary research among UM researchers
- To drive impact-oriented research within UM

1.4 Scope and Area of Research
Research fields are based on each Clusters themes/focus:

Clusters	Niche Areas	Thrust Areas
Frontiers of the Natural World	● Nature-Inspired Technology (Driving Drug Discovery)	● Curiosity-driven Fundamental
Health & Well-Being	● Active Aging ● Cancer	● Innovative Health ● Mental Well Being ● Lifestyle Disease
Innovative Industry & Sustainability Science	● Material ● Energy	● Sustainable Living ● Water & Environment ● IR4.0
Social Advancement & Happiness	● Cultural, Heritage & Civilization ● Behavioral Studies	● Smart Society ● Education for the Future

1.5 Grant Application and Criteria

1.5.1 General Criteria

Open to University academic staff (Associate Professor, Senior Lecturer, and Lecturer) with permanent or contract status.

For contractual academic staff, a minimum appointment of twelve (12) months is required and the application must include at least one (1) permanent academic staff as a co-researcher.

Team members (co-researchers) can comprise academic staff at all levels including professors, research officers and post-docs.

1.5.2 Specific Criteria

Criteria	Universiti Malaya Impact-Oriented Interdisciplinary Research Grant Programme
Eligibility as Programme Leader	University academic staff (Associate Professor, Senior Lecturer, and Lecturer) with permanent or contract status
No. of work packages	Minimum of three (3) Work Package
Team Members	Researchers must come from **at least two (2) different disciplines** and **two (2) different faculties.**
Grant Ceiling	RM 300,000 per program for 2 years
Duration (Months)	24
Research Field	The research must be interdisciplinary in nature and must be related to RC Niche & Thrust Areas.
Stakeholders' Engagement	Researchers are required to show evidence of active engagement with stakeholders during preparation of the proposal and throughout the project (prior stakeholder engagement will be considered an advantage). However, this is bonus criteria that will not disqualify the proposal from being evaluated.

1.6 Universiti Malaya Impact-Oriented Interdisciplinary Research Grant Programme Form

All the applications must attach the following details as follows:

- Curriculum Vitae (CV) for the **past 3 years** and MUST be relevant to the proposed programme) of
    i. Programme Leader
    ii. Internal Team Members (Work Package Lead & other members)
    iii. External Collaborator (s)
- Researchers' Profile of Programme Leader & Work Package Leader (maximum 1 page)
- Commitment Letter (for External Collaborators/s)
- Commitment Letter from the stakeholder (s) (Containing details of type of collaboration, role of stakeholders and their contribution)
- Gantt Chart of Research Activities (For the whole programme)
- Research Milestones (For the whole programme)
- Flow Chart of Research Activities (For the whole programme)

- Justification/ Details of Proposed Budget
- Graphical Abstract (maximum 1 page) (For the whole programme)

1.7 Universiti Malaya Impact-Oriented Interdisciplinary Research Grant Programme Proposal Format

Proposal must include the following:

1.7.1 Executive Summary
The summary must demonstrate the interdisciplinary nature of the research and should include, but not limited to background of research, objectives, problem statement and brief methodology.

1.7.2 Description of Work Packages
Researchers must demonstrate the contribution of the work packages in achieving the overall programme objectives. These work packages must be working together to achieve a common goal.

1.7.3 Quality of Researchers
The research team's track record, including that of external collaborators (national/international) / stakeholders that are directly relevant to the proposed research must be stated.

1.7.4 Targeted Research Output
The expected research output must be clearly specified (both academic output and non-academic output). There must also be a clear research impact statement.

1.7.5 Research Outcome That Will Lead to Impact

The researchers should demonstrate that external stakeholders/research users are willing to take up the research output/ results such as the following:

Community services	Policy Papers
Prototype / Pilot plant	Products
Proof of concept	Software
Process development	Others (Give the details and justifiable outcomes can also be considered)

1.7.6 Risk Assessment

Researchers are required to identify and present the risk assessment programme

Description of risk (Low/Medium/High)	Work package(s) involved	Proposed risk-mitigation measures

1.8 Distribution of Allocation

Approval of allocation for Year 2 is subject to the programme performance in Year 1 (expenditure, achievement of milestones).

1.8.1 Vote 11000 Salary and Wages

The ceiling for salaries and wages is subject to the Guidelines on Recruitment and Appointment of Senior Researcher / Researcher / Assistant Researcher / Project Assistant / Research Assistant set by the University is RM 30,000 per year.

1.8.2 Vote 21000 Travelling and Transportation

Covers travel for fieldwork **ONLY**.

Documents required for fieldwork application:
   a) Justification of fieldwork
   b) Schedule of work activities
   c) Letter of invitation from institution (if applicable)

Application for fieldwork must be submitted fifteen (15) working days prior to travel date.

Ceiling for this vote:
Sciences : 20% of current year allocation
Social Sciences : 40% of current year allocation

This vote does not cover expenses related to conference attendance.

1.8.3 Vote 24000 Rental
Rental is allowed for research space, equipment, transportation and other items that are directly involved in the research. Vehicle rental must be with a licensed transport company.

1.8.4 Vote 27000 Research Material and Supplies
Only research-related expenses are allowed.

Applications for purchases of equipment of less than RM 3000 must be made through this vote.

1.8.5 Vote 28000 Maintenance and Minor Repair Services
Only expenses for minor repairs and renovation of buildings, laboratories, equipment or any other research-related items are allowed.

Maintenance cost of existing equipment during the project is allowed. Once the project has been completed, this cost will not be covered by the grant.

1.8.6 Vote 29000 Professional Services
Other services include printing, hospitality, honorarium for research assistant / professional services / consultancy, data processing and other services that are related to the research project.

Honorarium Payment Guidelines (Research Assistant):
a) Honorarium cannot be paid more than three (3) consecutive months or three (3) times to the same person in one (1) financial year.
b) Honorarium payment that exceeds RM 500 cannot be paid in cash.
c) Letter of appointment as a temporary research assistant from Head of Research / Head of Department is required for honorarium payment.
d) Ceiling research assistant honorarium is RM 3000 / month.

Honorarium Payment (respondents / subjects):
a) Clinical : RM 50 (max) / session.
b) Non-clinical : RM 5 – RM 20 / session.

1.9 Achievement / Research Output

1.9.1 Academic Output
Defined as follows:
i. WoS publications
ii. Book(s) / Chapters in book (Research book that publishes by an international renowned Publisher and those in the MAPIM List will be counted)
iii. Scopus/ Peer-reviewed journal articles (Only for non-science which listed under MySite & ESCI))
iv. Policy papers
v. IPR / Copyright
vi. Human Capital Development (PhD/ Masters) (At least 3 HCD/programme)

1.9.2 Non-Academic Output
Defined as follows:
i. Videos (Live action videos - a recording of either still or moving objects)
ii. Media Articles
iii. Website/Blog/Social Media
iv. Software / Applications
v. Societal Engagement
vi. Others: Please specify and seek clarification from Research Cluster Office for acceptable non-academic output

1.9.3 Compulsory Promotional and Visibility Requirement
All programmes are required to produce materials (e.g. infographic/videos/lay abstract/photos) related to the research programme. These materials will be used for promotion and visibility purposes.

1.9.4 Additional Requirement

To avoid over-dependence on internal funding, all successful applicants are expected to apply for external funding to ensure the continuation of the project towards achieving the targetted impact.

The proposal must be prepared and ready for submission by the 21st month of the IIRG programme. The researchers must also identify the funding body to which it will be submitted.

Note:
Researchers who fail to produce the required research outputs may not be considered for any new UM internal grant applications for a period of up to 3 years.

1.10 Research Impact

You can use these columns to help write your 'IMPACT SUMMARY'		This may be helpful for structuring your 'Impact Summary' and 'Pathways to Impact' sections	You can use these columns to help write your 'PATHWAYS TO IMPACT'				
Who will your research benefit? (non-academic beneficiaries)	**What** will be the benefits to them from your research?	**How** would you categorise this benefit/beneficiary? (E.g. public, industry, Policy?)	**How** are you going to share your research with them? (I.e. what is the specific activity?)	**When** are these activities going to take place? (Be as specific as possible)	**Who** from your research project is going to arrange and deliver this activity?	What **resources/ training** will you need for this activity? (Include in costs & justification of resources)	**How will you know** these activities have been successful?

1.11 Announcement of Application Opening and Closing Dates
The opening and closing dates for applications will be announced through UMinfo

PART 2 – OTHERS

1.1 Reviewer

1.1.1 Selection of Reviewers
i. The selection of the reviewers will be based on:
    a. Experts in the research area, OR
    b. Experts relevant to the research area, OR
    c. Have experience in the research area

1.1.2 Programme Assessment
a) Quality of Research Proposal
The first element weighted is 40% (total of 20 marks) of the evaluation based on the following aspects:
i. Clear research gap
ii. SMART objectives
The details of the SMART objectives are as below:

S	Specific, Significant, Stretching - Outline in a clear statement precisely what is required.
M	Measurable, Meaningful, Motivational - Include a measure to enable you to monitor progress and to know when the objective has been achieved.
A	Agreed upon, Attainable, Achievable, Acceptable, Action-Oriented - Objectives can be designed to be challenging, but it is important that failure is not built into objectives. Employees and managers should agree to the objectives to ensure commitment to them.
R	Realistic, Relevant, Reasonable, Rewarding, Results-Oriented - Focus on outcomes rather than the means of achieving them
T	Time-based, Time-bound, Timely, Tangible, Trackable - Agree the date by which the outcome must be achieved

iii. Detailed methodology
iv. Connection between sub-programme

b) Scientific Merit

This element is related to the final product of the programme (results) that will represent the value of the research.

Scientific merit weighted is 50% (total of 15 marks) of the evaluation based on the following aspects:

i. Commands scientific excellence in relation to the output(s) promised
ii. Significant aspects of the programme are based on innovative/novel approach
iii. Expected result will lead to progress beyond the current state-of-the-art

c) Impact on Society / Industry / Policy Implication

Weighted at 10% (total 10 marks), the element is evaluated based on:

i. Long term benefits and forecasting positive impact on society / industry / policy
ii. Relevance to major national and / or global agenda

For science / engineering based programmes, impact on society / industry may be more relevant while policy implication will be relevant to non-science based programmes.

1.2 UM Safety & Research Handbook

All applicants are required to acknowledge that they have read, understood and will implement all requirements in UM Safety & Research Handbook. Failure to do so will result in disqualification of the application UM Safety & Research Handbook

This safety handbook covers the following topics:

1. Individual Responsibility
2. Safety and Health Regulations and Code of Practice in the University
3. Access, Housekeeping and General Safety Rules in Laboratories, Workshops and Stores
4. Safety in the Office, Reading Rooms and Classrooms
5. Safety in Workshops
6. Safety in Laboratories
7. Good Microbiological Practice
8. Waste Disposal
9. Radioactive Materials
10. Genetically Modified Organisms

Further information on safety procedures in specialized facilities, laboratories or

workshops should be obtained from the respective unit heads/laboratory supervisors.
Note:
Proof of submission of Notice of Intent [NOI] to IBBC must be attach with your proposal for research involving use of infectious and potentially infectious agents/materials and biological toxins

1.3 Research Ethics

All research conducted by staff and students of the university involving human participants and the use of vertebrate animal subjects must be referred to the appropriate ethics committee.

These include all research, qualitative or quantitative, regardless of whether the research is funded by internal/external grants or even unfunded
University of Malaya Research Ethics Committee (UMREC)

Note:
a) If your proposal is successful, please be reminded that researchers are responsible for obtaining the biosafety and ethics approvals. Researchers are to take full responsibility if the project is conducted without the approvals.
b) If researchers do not show any proof of biosafety and ethics approvals within six (6) months of grant approval, the research project may be suspended.

1.4 Reallocation of Research Grant
Documents required:
i.   Endorsement from the Head of Department/Dean of Faculty
ii.   Justification of amendment to research allocation and attachment (if any).
iii. Financial statement from RGMS
iv.   The maximum additional re-allocation allowed from any vote is 20% only.
      Example:
      Original allocation for Vote 27000 (Supplies and Research Material) is RM10,000 Current balance for this vote is insufficient to cover the needs of the research.
      Maximum additional reallocation allowed from any vote is 20% from RM10,000 = RM2000 only.

1.5 Extension of Research Grant
Application must be submitted one (1) month before the expiry date of the project. Any application submitted later than the duration stated may be REJECTED.

Documents required:
i.   Endorsement from the Head of Department/Dean of Faculty
ii. Justification for extension
iii. Latest progress report. Attach latest gantt chart and budget details from Research Grant Management System (RGMS)

The maximum period allowed for extensions is six (6) months only.

1.6 Transfer of Balance into other Research Grant
The current balance in the Universiti Malaya Impact-Oriented Interdisciplinary Research Grant Programme cannot be transferred to other research grants.

1.7 Page Charge
Researchers can apply at the IPPP Page Charge Fund for page charges. Please refer to the guidelines at UM Research Website.

1.8 Acknowledgement of Research Output
All publications/research output must acknowledge the research grant used. Maximum of two grants are allowed to be acknowledged in a publication.
Only publications that are produced after the grant has been awarded, and are directly resulting from work done in the research programme will be accepted as output. Action will be taken against inappropriate grant acknowledgement

Example of acknowledgement:
This research is supported by Universiti Malaya Impact Oriented Interdisciplinary Research Grant (xxxxA/B/C-19XXX)