RESEARCH HANDBOOK_

University of Technology Bahrain

جامعة البحرين للتكنولوجيا

Table of Content_

RESEARCH OVERVIEW

Research is one of the core functions of University of Technology Bahrain (UTB). This function can be traced as an important thread throughout the University's strategic framework and would serve as backbone of pedagogical practices and student learning. The Research Council supports and encourages scholarly activities of all types and in all aspects of research undertakings.

To strengthen further the research mandate of the institution, the University's five-year strategic plan includes a high-level Strategic Goal, **" *Pursue high-impact research and innovation through business and industry collaborations, and international linkages"*. The Research Council includes views regarding the quality and quantity of the research. It focuses on conducting applied research, developing new ideas and seeking innovations in the research outcomes responsive to socio-economic requirements of Bahrain and the region.

RESEARCH GOAL AND OBJECTIVES

Research Goal

- Pursue high-impact research and innovation through business and industry collaborations, and international linkages.

Research Strategic Objectives

- Deliver impactful innovation through collaborative engagement in research projects with industry, business, government, and the community.
- Cultivate a high-level research workforce and culture.
- Foster research excellence and innovation which will lead to the increase of the overall quality and quantity of published scientific outputs.

RESEARCH THRUSTS

A. College of Administrative and Financial Sciences (CAFS)

- Islamic Banking, Financial Markets and Investments, Insurance, Banking, Real Estate and Accounting
- Business Administration, Human Resource Management and Organizational Behavior.
- Microeconomics, Macroeconomics, and International Economics
- Business Analytics, Data Analysis, Big Data, Information Systems, and Cloud Computing
- Digital Transformation, Digital Business, Digital Marketing
- Operations and Logistics and Supply Chain, Management

B. College of Computer Studies (CCS)

- Artificial Intelligence and Data Analytics
- Cyber security,
- Cloud Computing
- Network Systems and Internet of Things
- Software Engineering
- Metaverse.

C. College of Engineering (COE)

Engineering Research

- Robotics Technology and Control Systems
- Automation, PLCs, Instrumentation
- Expert and Distributed System
- Mobile computing and network resource management

Natural Science and Math research

- Environmental Pollution and Global Warming
- Industrial Research
- Renewable Energy and Applications
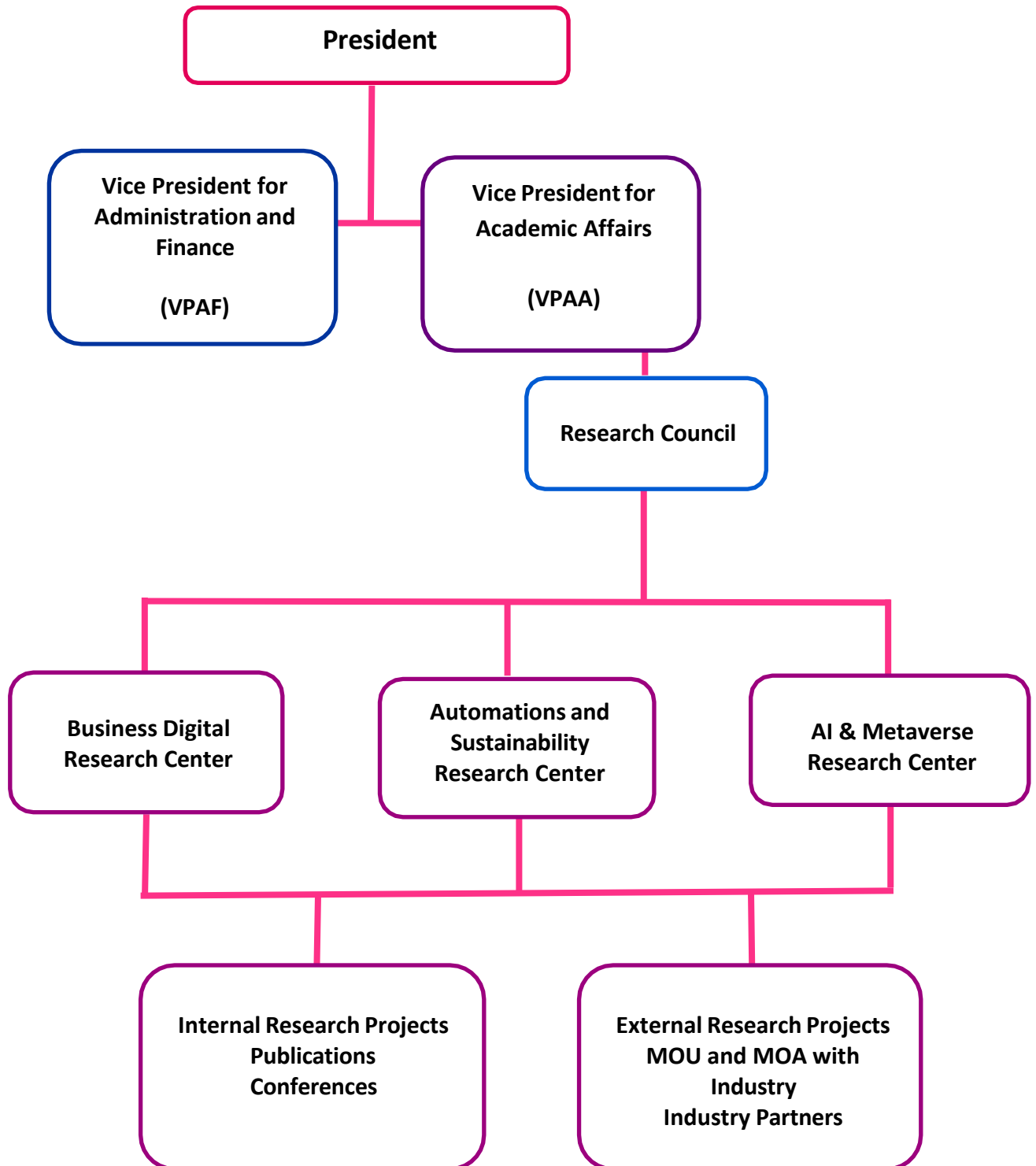- Computational Science, Numerical Analysis and Mathematical Modeling

- Mathematics Education
- Nanomaterials and Nanotechnology

D. *Center for General Education (CGE)*

- Academic performance, Innovative teaching, blended learning, classroom management
- Language Proficiency, English for Specific Purposes and Academic Purposes
- Sociological/Ethical values
- Human Rights and contract law

RESEARCH FRAMEWORK

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                          │      President      │
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        │ Vice President for │   │ Vice President for  │
        │ Administration and │───│  Academic Affairs   │
        │      Finance       │   │                     │
        │                    │   │       (VPAA)        │
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President

Vice President for Administration and Finance

(VPAF)

Vice President for Academic Affairs

(VPAA)

Research Council

Business Digital Research Center

Automations and Sustainability Research Center

AI & Metaverse Research Center

**Internal Research Projects
Publications
Conferences**

**External Research Projects
MOU and MOA with Industry
Industry Partners**

SCIENTIFIC RESEARCH POLICY

1. POLICY

The University's research policy provides support for the development and implementation of the university's research strategy, setting out measures to encourage appropriate behaviors to achieve university's strategic aims and would serve as backbone of pedagogical practices and student learning in all aspects of research undertakings.

2. PURPOSE

This policy sets forth guidelines and principles for establishing research council and research centers that guide the conduct and management of research activities within the institution, as well as collaborative research initiatives with industry and other academic entities.

3. SCOPE

The policy applies to all staff, students and affiliates conducting or managing research for UTB. The policy is supported by research handbook and terms of references to guide management and help researchers to initiate, plan, conduct and complete their research.

4. RESPONSIBILITIES

VPAA

The Vice President for Academic Affairs (VPPA) plays a key role in developing research plans and strategies in alignment with the UTB vision and mission. The VPPA works towards creating an environment that encourages research and scholarly activities across different research areas within UTB. The VPAA reviews and endorses the submitted research budget, facilitates collaborations, and promotes knowledge exchange with industries and external partners. Additionally, VPAA oversees and endorses all research activities and projects within the university. This includes monitoring and endorsing all types of funding requests, conferences, and research publications, as well as ensuring that all research is conducted in accordance with institutional research policies and ethical standards.

Research Council

The main responsibilities of UTB Research Council are to support, encourage, and enhance research projects; and promote research culture among UTB faculty members, staff, and students.

The UTB research council in coordination with research centers are responsible for all research matters of the university, such as facilitating, implementing, and monitoring research projects, research collaborations, research publication, and attendance to conferences, workshops, and seminars. Faculty members of all colleges including the Center for General Education may work collaboratively with each other in different research areas.

The UTB Research Council full responsibilities are stated in term of reference (TOR) of the research council.

Research Center

There are three research centers across the colleges: the name of research center of the College of Administrative and Financial Sciences is Digital Business Research Centre (DBRC), the name of Research Centre of the College of Computer Studies is Artificial Intelligence and Metaverse (AIMRC), and the name of the College of Engineering is Automation and Sustainability Research Centre (ASRC). The faculty members of the Center for General Education (CGE) will be affiliated within the Digital Business Research Centre

The research centers actively promote and foster scholarly endeavors across research areas and establish collaborations with related industries. They actively engage in developing and monitoring research plans and strategies, endorsing research projects and funding requests, monitoring college research performance, ensuring compliance with research policies and ethical standards, and performing other duties assigned by the research council.

Main researcher

 is a member of academic or scientific body or similar to that who joins one researcher or more during the research procedures to achieve and study certain subject and who supervises and manages the research team.

Associate researcher

is a member of academic or scientific body or similar to that in the area of specialty and who participates with a main researcher or more to achieve and study certain subject. The responsibility shall be collective with the main researcher in addition to the responsibility of the task given in the area of research specialty and expertise.

Referee/investigator(s)

 is a member of academic or scientific body or similar to that in the area of specialty and who is tasked to examine and study a research proposal or scientific production with the objective of scientific evaluation or making a judgment in relation to specialty and methodology in addition to deciding the size of benefits resulting there from.

5. DEFINITION OF TERMS

Automation and Sustainability Research Centre is a research centre hosted by the College of engineering under the University Research Council. The centre aims to foster innovation in automation and sustainability, offering fresh perspectives and actionable solutions to address various industry and social challenges.

Digital Business Research Centre is a research centre hosted by the College of Administrative and Financial Science under the University Research Council. The centre aims to become a leading research center that drives innovation in the fields of Digital Business, providing new insights and solutions to the challenges facing industry and society.

Entrepreneurship is a comprehensive assistance programme designed to help UTB students with start-up projects and secure resources to improve their chance to build their own

companies; and for existing companies to collaborate with academics in improving the design, operations, systems, process of the company.

Artificial Intelligence and Metaverse Research Centre is a research centre hosted by the College of Computer Studies under the University Research Council. The centre aims to become a leading research center that drives innovation in the fields of Metaverse and AI, providing new insights and solutions to the challenges facing industry and society.

Research grants refers to grant or funding awarded to any UTB academic staff in order to perform and complete high quality scientific research.

Research output refers to the annual scientific research output of the UTB academic staff; it can be in the form of conference presentations or publications.

Scientific Research is research that is conducted by UTB academic staff with the goal of advancing knowledge by the systematic collecting, analysis, and evaluation of data in a planned manner in accordance with the university's research areas.

Scientific Research Misconduct is defined as any academic staff member at UTB who engages in research misconduct that endangers the university's reputation and that of the Kingdom of Bahrain.

6. PROCEDURES
6.1 RESEARCH PLANNING
The primary objective of developing research plans is to ensure that the plan aligns with the strategic goals, the vision and mission of the university, and the national scientific research priorities. Each research center shall develop a research plan in terms of materials, facilities, equipment, and funding to successfully conduct and complete approved research projects and related activities.

The research center(s) set a deadline during the third trimester of each academic year for submission of application for research proposals. Each research center reviews and consolidates the proposals and formulates the research plan for the next academic year and seeks approval from the college dean and college academics council, then submits them to the research council.

The research plans of the research centers undergo a review and approval process by the research council. The research council formulates the university research plan by incorporating the research plans of the research centers. It also includes any suggested collaborative research with industry and other institutions. The university research plan is then presented to the Vice President of Academic Affairs, seeking the approval of the Academic Council and University Council.

6.2 CONDUCT OF RESEARCH
All faculty members are required to conduct scientific research, allocate time, and identify resources to ensure timely completion of their scientific research activities. Each faculty member must publish a minimum of two articles per academic year. These articles can be as the sole author, the principal author, or the first co-author in line with the University of Technology of Bahrain affiliation in publications from external institutions. (In cases where there are multiple co-authors affiliated with the University of Technology of Bahrain, only the

first author in line will be counted.) These publications must be in journals or conference proceedings indexed by Scopus or Web of Science.

For every master thesis, at least 1 paper should be published in journals or conference proceedings indexed by Scopus or Web of Science

6.2.1 APPROVAL OF RESEARCH PROPOSAL
6.2.1.1   INTERNAL RESEARCH PROPOSAL / PROJECT
The research proponent seeking research funding must be a full-time employee of the University and have signed employment contracts. The research shall be deemed as joint ownership of the author and the university, and thus, may be presented in any research forum or published in indexed journals with the permission of the university Council.
The following procedure to be followed:
  a)   The research center(s) set a deadline during the third trimester of each academic year for submission of application for research proposal, funding, facilities, equipment's, conference participation, paper publications, or any other planned activities for the upcoming academic year.
  b)   Research proposals to be conducted individually and/or collaboratively with another faculty member/s (or group of faculties) will undergo a review and require approval by the research council.
  c)   The research proposals must be within the research areas **(thrust)** of the college and the research center.
  d)   The research proposal/project should include:

• Research / project description
• Methodology
• Aims and Importance of the project to UTB.
• Project Design
• Expected outcomes of the research/ project
• Project timeline/ Gantt chart
• Research/ Project budget

  e)   The research center(s) collects the applications of all faculty proposals, funding requests for attending conferences, publishing papers, or any other activity that faculty members propose.
  f)   Research centers formulate a research plan for internal research proposals/projects in preparation for the next academic year's research.
  g)   The research center(s) reviewed the research plan in coordination with the university dean and college academic council. Upon approval of the college research council, the research center(s) submit the developed plan to the research council which in turn review and develop university research plan.
  h)   The university council submits the development university research plan to the VPAA to present to the academic council and to endorse it to the university council for final approval.

6.2.1.2 COLLABORATIVE RESEARCH PROJECTS

a.   A collaborative research project(s) with industry, academic institutions, or government entities could be proposed by any faculty or research center(s) member. It should be based on MOU or MOA.

b.   The research center is responsible for developing the MOU or MOA with the partners, which contains details for project execution, responsibilities, terms of funding, timeline, required facilities, materials, and equipment.

c.   The research center should propose suitable incentives for faculty members working on project executions.

d.   The University research council reviewed and endorsed the MOU and MOA to the VPAA to present to the academic council and to endorse it to the university council for final approval.

6.2.2 ETHICAL AND SAFE CONDUCT OF RESEARCH

Ethics is of great importance to research and provides guidelines for the responsible conduct of well-defined research. In addition, research ethics educates and monitors faculty members, staff and students in conducting research to ensure a high ethical standard. To help researchers address the issue of ethics, UTB has produced a policy and set of procedures that apply to all research activities being undertaken by faculty members, staff and students at the university.

In the context of research ethics, the research center assesses the ethical acceptability of a research project through consideration of the foreseeable risks and the ethical implications of the project including but not limited to safety, privacy, confidentiality, and intellectual property rights.

The Ethics Form 1 – Ethics Assessment Form will be used by faculty members, staff and students seeking ethical approval for an individual or group research project.

A completed version of the form should be submitted to the research center in the College. Applications must be completed on the prescribed form; attachments will not be accepted other than those requested on the form. The conduct of scientific research must not start until approval has been received from the appropriate Research Center.

6.2.3 PLAGIARISM

UTB uses Turnitin plagiarism detection system to scan work for evidence of plagiarism. This system has access to many sources worldwide (journals, books, articles, magazines, websites etc.). The software helps scan documents of any type for plagiarism using cutting-edge technology to identify and highlight similarities with other documents in the database, giving our faculty members, staff, and students an opportunity to check their documents for plagiarism before submission. This policy is applicable to all researchers including faculty members, staff and students at the University.

All faculty members and students have access to the Turnitin plagiarism detection system. it

needs research output/s to be submitted electronically as a soft copy. In order to strengthen intellectual ethics and the best anti-plagiarism practices at UTB, the following are implemented for faculty members, staff and students.

a. Faculty Members

1. Each faculty member is responsible for the uploading of his/her own research output to the Turnitin plagiarism detection system.
2. Faculty member must attach the result of check of plagiarism during the submission of his/her research to college research center. The threshold for similarity index should not exceed 20%.
3. Any violation of research ethics and conduct subjects a researcher to the university penalties.

b. Students

1. The IT office provides all students with access to Turnitin plagiarism detection system software through Moodle.
2. All students have access to submit all their research outputs, assays, projects, capstone projects, homework's, and assignment directly to the Turnitin plagiarism detection system software through Moodle.
3. The students could see the results of the similarity in the Moodle directly after submission.
4. They can specify the similarity areas and therefore have the opportunity to revise their submitted reports several times before the final submission.
5. The number of revisions to be carried out by student(s) can be determined and set by the advisor through the Moodle.
6. The final submission should not exceed the threshold for similarity index of 20%.
7. Even with threshold for similarity index of 20%, the advisor should have a look on areas of similarity that is not touch key and vital point of the research.
8. Despite setting a similarity index threshold of 20%, it is important for the advisor to review areas of similarity that do not directly pertain to the crucial and essential aspects of the research.
9. Any violation of research ethics and conduct will subject a researcher to the university penalties.

6.3 UNIVERSITY RESEARCH FUNDING

A. APPROVAL OF RESEARCH FUND

1. The college research centre ensures that all requests for funding are in accordance with the HEC Scientific Research Regulations on spending mechanisms and funding of scientific research mentioned above. The college research center is responsible for allocating and monitoring their corresponding research budget.

2. The college research center deliberates all the requests for funding and ensures that these are within the college's 3% share from the UTB research budget. The research center head submits to the College Council the approved list of application for funding for approval. The Dean endorses the approved list to the Research Council.

3. The Research council Director consolidates all the recommended research projects for funding and presents the list to the Research Council for deliberation and approval. The Research council verifies the availability of funding and allocates/reallocates appropriately and proportionately based on the 3% of the University's total annual revenues. The Research Director endorses the approved list to the VPAA.

4. The VPAA reviews the submitted research budget, verifies that the proposals are in accordance with the HEC guidelines and with the University Research Agenda. The VPAA approves the list and endorses it to the President. The President approves the list for research funding.

B. EXPENDING MECHANISM

The University of Technology Bahrain allocates 3% of its revenues for Scientific Research and implements a transparent and clear mechanism of funding and spending from scientific research budgets on specified areas in accordance with the Article (10) of Scientific Research Regulations of the Higher Education Council, which are:

1. Purchasing research equipment and tools including computers and specialized software needed for the research project.
2. Purchasing biological, chemical and physics materials including glassware and tools and others needed for the research project.
3. Purchasing specialized books and scientific periodicals to support certain project however, such books and periodicals shall be given to the institution library after the end of the project.
4. Purchasing databases required for execution of the research project or payment of subscription fee, therefore.
5. Purchasing specialized scientific tests and metrics or leasing equipment required to execute all or part of the research project.
6. Execute contracts with suppliers to repair and maintain equipment and machines purchased for research projects.
7. Scientific publication expenses resulting from publication of research made by a teaching faculty member in the reputable scientific periodicals or conferences volumes and folders as given in the publication guidelines.
8. Expenses of organizing scientific conferences and scientific symposiums and related academic activities.
9. Travel expenses of a teaching faculty member if he is required to visit a body outside the kingdom to perform certain research project such as compiling data or using specialized equipment which is only available with that body.
10. Scientific consultation and external services expense if required for the research project.
11. Expenses of the practical consultancy and external services, if required by the research project.
12. Any other expenditures required to complete the research project and of a similar nature to the items mentioned above.

6.4 SCIENTIFIC RESEARCH SUPPORTS
6.4.1 PUBLICATION IN JOURNAL

Eligibility criteria for availing publication fee:

The published article must be indexed in Scopus or Web of Science journals.

2. Full processing fees can be claimed for a published article if
   a. The author(s) is from the University of Technology Bahrain
   b. The principal author is from the University of Technology Bahrain with co-authors from other universities or institutes.
3. A faculty member from the University of Technology Bahrain can claim their 50% of the publication fees if they are a co-author on a published article when the principal author is affiliated with a different university or institution.

Procedure for Applying Publication Fee:

1. The faculty member submits the Publication Fee Claim Form with the supporting documents to the Research Center Head of the respective college. The supporting documents include:
    - *A copy of published article in a journal or Acceptance Letter*
    - *Source details of the journal (Scopus with covering period)*
    - *A receipt showing the amount paid as publication fees for the article.*
    - *Ethical Assessment Form*
2. The Research Centre head verifies and submits the claim form with supporting documents to the Programme Head who forwards it to the college dean for endorsement.
3. The endorsed claim form is forwarded to the research council director for review and approval.
4. Approved claim form is forwarded to the Vice President for Academic Affairs.
5. The Vice President for Academic Affairs forwards it to the Vice President for Administration and Finance to make the appropriate decision of the payment of the publication fees.

6.4.2   PARTICIPATING IN A CONFERENCE

GUIDELINES FOR PARTICIPATING IN THE CONFERENCE:

1. The University shall, fully or partially, fund the expenses of the faculty member participation in Scopus/Web of Science indexed in conferences. This funding includes any of the following items:
    - *Conference fees*
    - *Travelling expenses*
    - *Accommodation fees*
    - *Daily Allowances*
2. If the faculty member participates in a conference within the Kingdom of Bahrain, the University shall contribute only to the registration fees.
3. The faculty member shall submit a research article to the conference that is relevant to the faculty member specialization and college research thrust.
4. The faculty member should submit the acceptance letter and the affiliation of the accepted article must include University Technology Bahrain.
5. The faculty member must be the sole author or the principal author of the accepted article.

PROCEDURE FOR APPLYING CONFERENCE PARTICIPATION FUND:

1. The faculty member submits the Conference Application Letter for Participating in a Conference along with the supporting documents to Research Centre head to which he/she belongs. The supporting documents are:

- *Acceptance Letter of the conference*
- *Conference details*
- *A copy of the accepted article*
- *A receipt showing the amount paid as subscription fees if paid already.*
- *Ethical Assessment Form*

2. The Research Centre head verifies and submits the Conference Application and all attachments to the Program Head to which the applicant belongs.

3. The Program Head forwards the claim form and all documents to the Dean of the college.

4. The Dean writes his remarks in the space provided in the claim form and forwards to the Research Council Director with all supporting documents.

5. The Research Council Director writes his remarks in the space provided in the claim form and forwards to the Vice President for Academic Affairs.

6. The Vice President for Academic Affairs writes his opinion in the space provided in the claim form and forwards to the Vice President for Administration and Finance to make the appropriate decision of the payment of the publication fees.

RESEARCH GRANTS
INTERNALLY- FUNDED RESEARCH PROJECTS

The University supports the continuous professional education in the field of research to further strengthen the research mandate of the institution. Hence, it is the policy of the University to uphold the development of the research career of the faculty members, staff and students by providing research grants, allowing sabbatical leave to conduct research, encouraging research collaboration with international and local institutions and sending researchers to conferences, trainings and seminars to further develop their research knowledge and skills.

The research proponent seeking research funding must be a full-time employee of the University and have signed employment contracts. The research shall be deemed as joint ownership of the author and the university, and thus, may be presented in any research forum with the permission of the university:

1. Internal funding can be granted to faculty members who are conducting research as part of their weekly workload; however, additional research proposals to be conducted collaboratively with another faculty member/s can be funded subject to the review and approval of the research council.

2. The research center head, after a meeting and consultation with the college center members, set a deadline for submission of application for research funding of the approved research projects with necessary supporting documentation.

3. The research center deliberates all the requests for funding and decides according to the priority areas/thrusts of the college/center.

4. The research center head submits to the College Council the approved list of applications for funding for approval.

5. The Dean endorses the approved list to the Research Council Director.
6. The Research Council Director consolidates all the recommended research projects for funding and presents the list to the University Research Council (URC) for deliberation and approval. The URC verifies the availability of funding based on the submitted plan of the colleges/center.
7. The URC through the Research Council Director endorses the final list to the VP for Academic Affairs (VPAA).
8. The VPAA approves the list and endorses it to the President.
9. The President approves the list for research funding.
10. Upon completion of the project the faculty members must submit a report describing the project and its outcomes. Moreover, the liquidation of the requested amounts should be submitted to the accounting office.

EXTERNALLY- FUNDED RESEARCH PROJECTS

A faculty member may conduct research project in collaboration/partnership with external partner/researcher.

1. All research projects with external funding shall be covered by a duly signed memorandum of agreement (MOA) with the external organization/institution.
2. The MOA shall stipulate the following conditions as part of the agreement:
    i. the roles, responsibilities, and contact person of contracting parties.
    ii. the duration, amount of funding from each party, and other resources.
    iii. the extent of ownership, which should be commensurate with the amount of funding and other resources.
    iv. other limitations and exclusions.
3. The faculty member shall submit the topic research proposal together with the draft MOA to the college research center for evaluation.
4. The research center head approves/disapproves the research topic proposal including the MOA. If approved, the research center head endorses the proposal to the college dean.
5. The college dean reviewed it together with the research center head and submitted it to the director of the university research council.
6. The Research council reviews the research proposal and approves/disapproves based on its alignment to the research agenda and the availability of funding. If approved, the proposal is endorsed to the VP for Academic Affairs (VPAA) for review and approval of the MOA.
7. The VPAA endorses the MOA to the legal department for review.
8. The VPAA endorses the reviewed MOA to the President for approval.
9. The University will be responsible for official processing applications for patents and will pay the costs of registration.
10. The faculty member may apply for a research project with an international research partner. The intellectual property will be owned by both parties.
11. The faculty member may present their research in regional and international conferences, symposium and workshops; or publish the output in Scopus/Web of Science indexed journals.
12. All research projects must be conducted under the affiliation of University Technology Bahrain and have been approved by line management.

a. EVALUATION AND MONITORING OF PERFORMANCE

1. The research centers are responsible for the evaluation and monitoring of research performance on college level at UTB, which involves periodic and annual reporting to research council.
2. Each college should incorporate the research activities in the college trimestral and annual operational performance plan.
3. The research council is responsible for follow up, monitor, and evaluate the research activities in research centers.
4. The research council consolidates the performance plans of all centers into the research council's performance plan and submits them to the academic council and Planning and Development Department for assessment, monitoring, and endorsements.
5. Impact must be considered in all research projects. UTB uses a number of internal and external measures to determine the impact of its research.
6. Researchers undergo annual appraisal that includes research performance criteria.
7. Researchers are supported at UTB through a number of research-focused professional development opportunities.

6.7 RESEARCH INCENTIVES

The University supports the continuous professional education in the field of research to further strengthen the research mandate of the institution. Hence, it is the policy of the University to uphold the development of the research outputs of the faculty members and staff including students by motivation through research incentives. The purpose of the incentives is to boost publication rates in peer reviewed international, indexed, and high impact factor journals. Also, the research should be applicable and reach the level of commercialization. This policy is applicable to all faculty members, staff, and students at the University. It includes but not limited to:

1. UTB will cover the publication costs for books, chapters, and research papers.
2. UTB allows faculty to present their research in local, regional, and international conferences, symposia, workshops, etc.
3. UTB shoulders the registration fee, hotel accommodation, visa fee, and airfare of the faculty member, staff, or student.
4. UTB also provides daily allowance (per diem) and transportation allowance to faculty members, staff, or students.
5. Faculty members who publish more than two papers will be eligible to receive financial incentives for each additional publication beyond the first two. The criteria for these publications are detailed in Article 6.2 of the policy.

6.8 INTELLECTUAL PROPERTY RIGHTS

It is the policy of the University to protect the intellectual property rights of faculty members, students and staff on research outputs and scholarly activities. The Research Centre together with the University Academic Council shall be responsible in the formulation of standards, guidelines, rules and regulations relating to copyrightable and patentable research to be endorsed by the University Vice Presidents for Academic Affairs and approval of the President. This document covers the policy on researchers' consent, copyright, patent, production, distribution and marketing of research outputs, royalty and administrative mechanism, which

are coherently, aligned with the national laws and regulations of Intellectual Property and copy rights in the Kingdom of Bahrain such as:

- *Law No. 22 of 2006 on the Protection of Copyright and Neighboring Rights.*
- *Law No. 1 of 2004 on Patents and Utility Models, as amended by Law 14 of 2006.*
- *Law No. 7 of 2003 on Trade secrets, as amended by Law No. 12 of 2006.*
- *Law No. 44 of 2005 on approving the accession of the Kingdom of Bahrain to the Patent Cooperation Treaty and its Regulations (2006).*
- *Law No. 19 of 2005 on Approving the Accession of the Kingdom of Bahrain to the Patent Law Treaty and Regulations (2005).*

COVERAGE AND PROCEDURES

b. COPYRIGHT
Ownership and University-Financed Research

1. If the research work is done during the official duty of the researcher, the copyright will be in joint ownership of the University and the researcher.

2. If the research work is not done during the official time of the researcher but with the financial assistance from the University, the University is entitled to a percentage of the royalty from the research work. A formal agreement will be formulated for such conditions.

c. COLLABORATIVE RESEARCH
1. For University-commissioned research, the copyright shall be in joint ownership of the University and the researcher.

2. For research that is commissioned by external entities, the ownership will depend on the agreement made by the University, the researcher, and the external entity.

3. Ownership of collaborative research, that is, research conducted through joint efforts of the University, external entity and the researchers shall belong in joint ownership of the parties involved.

d. ROYALTY
The royalty derived from the research work shall be awarded according to the manner of ownership previously mentioned. The details of which will however be stipulated in the agreement that will be formulated and signed by the concerned parties.

e. PATENT
Patenting of research work will generally follow the form of ownerships earlier mentioned. Details of the patent will be based on the form of ownership.

6.9 SCIENTIFIC RESEARCH MISCONDUCT

UTB demands that all faculty members, staff and students engaged in scholarship/ research adhere to the highest ethical standards. Misconduct in scholarship/ research by any member of the University community threatens the image of the University and the person. Hence, all scholarly activities must be free from any form of scholarly misconduct.

6.9.1 FORMS OF SCHOLARLY MISCONDUCT

Fabrication, falsification, plagiarism, violation of intellectual property rights, submission of falsified/tampered research papers, misuse research funds and no submission of research output in accordance to the specified research guidelines.

6.9.2 PENALTIES FOR MISCONDUCT IN SCIENTIFIC RESEARCH

Faculty members who after due process, are found to have committed scholarly misconduct may be levied one or more of the following sanctions depending on the gravity of the offense:

OFFENSE	OCCURRENCE & PENALTY	
	1st	2nd
Fabrication, falsification, plagiarism	4	
Violation of intellectual property rights	4	
Submission of falsified/tampered research papers	4	
Misuse of research funds	4	
The faculty member has not met the minimum publication requirement for articles per academic year.	2	3

Legend:

1- Verbal reprimand *2- Written warning*

3- Three-day suspension *4- Termination for a cause*

Students who after due process, are found to have committed scholarly misconduct may be levied one or more of the following sanctions depending on the gravity of the offense:

OFFENSE	OCCURRENCE & PENALTY		
	1st	2nd	3rd
Fabrication, falsification, plagiarism	1	2	3
Violation of intellectual property rights	1	2	3
Submission of falsified/tampered research papers	1	2	3

Legend:

1- Failing mark in the course *2- Suspension*

3- Dismissal/non-readmission with invalidation of grade in the course

The University reserves the right to report proven allegations of research misconduct against its faculty members, former faculty members, staff and current and former registered students to potential, new

and subsequent employers. Where employees or students of another institution are involved in a collaborative research project with the University and are implicated in a university finding of serious research misconduct, the University reserves the right to notify the home institution of those involved.

CAPSTONE\ THESIS WRITING POLICY

1. POLICY

This policy applies to all undergraduate and postgraduate taught programmes of studies at UTB. The Capstone / Thesis / Project Course is the mandatory course for all the students enrolled at UTB which is useful for their practical life after graduation.

2. PURPOSE

The goal of University of Technology Bahrain (UTB) is to maintain excellent standards of achievement in teaching, learning and research that can enrich the University community and to be of service to the Kingdom of Bahrain, the GCC and the international community.

3. SCOPE

This policy and procedure documents provide guidance to students taking and faculty handling Capstone courses (thesis, design projects or research). The Capstone/Thesis Writing policy covers all procedures in completing the capstone course required from undergraduate and postgraduate students of UTB.

4. RESPONSIBILTIES

- **Capstone Project / Thesis / EDP Supervisor:** Provides guidance and support to students throughout their capstone / Thesis / project, ensuring academic rigor and relevance.
- **Thesis Coordinator:** assigned faculty member to manage capstone project/thesis/EDP including course design and student engagement.
- **Panel Member:** Evaluates student capstone / Thesis / Projects during the defense process, providing constructive feedback and assessment.
- **Student Researcher:** Conducts thorough research as part of their capstone project, applying academic and analytical skills to address real-world issues.
- **Programme Head:** Ensures the academic program aligns with educational standards and institutional goals while fostering faculty development.
- **External / Internal Examiner:** Provides impartial assessment and feedback on the capstone / thesis / Project contributing to the academic integrity of the evaluation process.

5. DEFINITION OF TERMS

Entrepreneurial Development Program (EDP): A cross-disciplinary initiative for BSIB, BSBI, and other students, promoting innovative projects and entrepreneurial skills.

An EDP Coordinator :is the faculty responsible for managing the Entrepreneurial Development Program, assigning credits, and grading students.

Oral Defense: is a presentation where a student defends their capstone / thesis / project and answers questions from a panel of experts.

Research Topic Proposal / Project Proposal (RTP/PP): is a formal document outlining a proposed research / project area or topic, including its objectives, significance, methodology, and expected outcomes. It serves as a plan for the research / project and is typically submitted for approval before beginning the actual study.

A Capstone Project / Thesis / Supervisor: is a faculty member or expert who guides and mentors students throughout their capstone / thesis / project. They provide support in developing ideas, conducting research, and ensuring the project meets academic standards.

6. PROCEDURES

6.1   Undergraduate Students' Capstone Project /Thesis/EDP

6.1.1   *Conduct of* **Capstone Project /Thesis/EDP**

1. Students have to register in the capstone project /thesis/ EDP course through the registration system.
2. Capstone Project /Thesis/EDP coordinator conducts orientation regarding the requirements of the courses including finalization of the groupings, submission and approval of research topic proposal (RTP), ethical assessment and prescribe timelines.
3. Once RTP is approved, the coordinator prepares the list of expert supervisors according to their expertise. Furthermore, students are assigned to be expert supervisors from the pool of faculty members and submit the list to the Dean for approval.
4. Once the list is approved then it is disseminated to the students and expert supervisors.
5. The students must get an acceptance form signed by the expert supervisor and submit a copy to the Capstone Project/Thesis Coordinators.
6. An expert supervisor will guide and supervise the students from start until the completion of the capstone project / thesis.

6.1.2   *Final Capstone Project /Thesis/EDP Documentation*

Appropriate content and format of the capstone project/thesis/EDP documentation is used by each college accordingly. Comprehensive orientations regarding the required content and presentation are provided by the coordinator to all the groups. Groups are asked to complete a certificate to confirm that the capstone project /thesis is his/her original work and has been carried out by him/her and to certify that all secondary material has been properly acknowledged and documented.

6.1.3   *Assessment and Presentation of Capstone Project /Thesis/EDP*

The capstone project/ thesis is assessed internally in UTB by 1-2 faculty members and an external panel with the same specialization as the topic being presented. Each examiner evaluates the capstone project/thesis independently. Appropriate rubrics are developed per programme. The rubrics used are

based on the Programme Intended Learning Outcomes (PILOs) and the key skills students are expected to gain from the course. They are designed to assess students' mastery of relevant knowledge, skills, and competencies in line with program objectives. In addition, panel members provide feedback highlighting the strengths and weaknesses of the study.

a. Oral Defense Stage (Undergraduate Students)

a.1 For the Capstone Project/Thesis Course:

1. The Capstone / Thesis / Project coordinator must ensure that the approved capstone project /thesis is complete before including it in the schedule of defense. The following must be completed:
    - Edited and printed final draft of manuscript
    - Software is available and running.
    - Prototype is available and working/functioning.
    - Plagiarism threshold (20%).
2. After fulfilling the requirement of the pre oral defense stage, the students are allowed to take the oral defense before the capstone project /thesis evaluation panel. The result of the student's evaluation which was done by the panel was then submitted to the College Dean.
3. The final evaluation report is endorsed by the panel and the feedback is given to the student and the coordinator.
4. The result of the evaluation whether satisfied or unsatisfied will be communicated to students and supervisor by the coordinator.
5. The coordinator is to guide students about their final submissions and guide them to prepare and bind the project thesis accordingly.

a.2 For the EDP:

1. The EDP coordinator must ensure that the project is complete before including it in the schedule of defense.
2. After fulfilling the requirement of the pre oral defense stage. The final result of the student's evaluation which was done by the external panel members was then submitted to the College Dean.
3. The final evaluation report is endorsed by the panel and the feedback is given to the student and the coordinator.
4. The coordinator is to guide students about their final submissions.

b. Post Oral Defense Stage (Undergraduate Students)

1. Students has to make three copies of Capstone /thesis/project/EDP book which should bear the signatures of the chair of the panel, internal panel member of the committee, an external panel member and the Dean of the College.
2. One copy is submitted to the library as part of its collection, one copy is submitted to the College, and one copy for him/herself for record purposes.
3. The final result of capstone project /thesis evaluation will be encoded by the capstone project/thesis/EDP course coordinator in the eMADA system.

6.2 Postgraduate Student's Thesis Writing Course

➢ **Conduct of Thesis Writing Course**

Topic Proposal Defense

1. The student will initially select a supervisor based on the area of specialization the thesis is being done. If the student is unable to find a suitable supervisor, the Thesis coordinator in consultation with the PH shall allocate a supervisor for the students. The students need to fill in a supervisor's acceptance form where the stated research topic will be mentioned.

2. The student will prepare a Research Topic Proposal (RTP) and will submit it to the supervisor who will evaluate the Research Topic Proposal using an appropriate rubric. After his evaluation the thesis supervisor will submit RTP to the thesis coordinator who will submit all the submitted RTP to the Higher Education Council (HEC) for the approval of the Topics. The Research topic proposal will also have a Gantt chart.

Pre - Oral Defense (Postgraduate Student's)

1. The student, after finishing the first three chapters and upon the recommendation by the supervisor, and meeting the required plagiarism threshold (20%), shall apply for Pre-oral Defense.
2. The thesis coordinator will convene the internal panel consisting of two faculty who are aligned in the area of specialization to sit on the Pre-oral defense; and,
3. The panel will approve the first three chapters including the methods and requisite research instruments.

Final Defense

1. Upon the recommendation by the supervisor, the student, after completing all chapters and meeting the required plagiarism threshold (20%), and payment of the final defense fee shall apply for Final Defense; and,
2. The thesis coordinator reconvenes the panel of two (2) faculty members and adds one (1) external evaluator.
3. The Programme Head submits an HEC Info Sheet of the Final defense schedule to the Higher Education Council.
4. The final defense is open to the public, and to be at least for one hour and fifteen minutes duration.

Postgraduate Thesis Final Oral Defense Guidelines

PART I: Before the Defense

1. Prior to the actual defense, the members of the panel shall meet among themselves for at least 15 minutes to discuss the flow of the thesis defense process; to explain the role of the chairman, internal and external panel members and thesis supervisor; as well as the criteria and forms to

be used in the evaluation of the thesis. The examining panel shall be composed of a Chairman (internal), external examiner, and an internal examiner.

2. Ensure that all cell phones and electronic devices (that are not a part of the defense) have been turned off. Recording the defense is not permitted. Picture-taking is allowed but only for official documentation purposes.

3. The defense proceedings are open to the public as audience observers (Faculty, students, and HEC representatives), but no audience participates in any part of the proceedings.

PART II: During the Defense

1. The Thesis coordinator will ensure the readiness of the final defense.
2. The Chairman will act as the moderator of the entire session. He will introduce the candidate and the members of the panel. Briefly outline the examination procedures and the criteria.
3. The candidate will give a presentation that is a brief overview of the research, findings and conclusions (approximately 30-45 minutes). No questions are allowed at this time.
4. After the presentation, the Chairman of the defense panel will initiate the discussion of the presentation through question and answer. It is expected that all the examiners will cover the entire details of the thesis. The External Examiner will be given the opportunity to be the first to ask questions followed by the internal examiner. The chairman during the questioning other panels may ask clarification or follow up questions.
5. All throughout the proceedings, the thesis supervisor shall be a silent observer – not answering questions for the student, nor taking down notes on matters raised by the panel. It is, however, the student's responsibility to write down notes or comments made by the Panel.
6. When the questioning is completed, the Chairman will ask the candidate, the audience and all other individuals who are not members of the panel to leave the room for a recess. The candidate and the supervisor shall wait outside of the discussion room and will be recalled returning after the deliberation of the panel.

PART III: After the Defense

During the panel's deliberation, the panel will discuss among themselves the result of the defense proceedings and come up with one of the following judgments:

Judgment	Grading System			
a) PASSED without revision	A+	4.00	95-100	Excellent
b) PASSED with minor revision	A- to A	3.67-3.89	87 - 94	Very Good
	B- to B+	2.67-3.33	76 - 86	Good
c) PASSED with major revision	C- to C+	1.67-2.33	64 – 75	Fair
	D to D+	1.00-1.33	50 –63	Satisfactory
d) FAILED and schedule for redefense	F	0.00	Below 50	Failed

The Chairman shall confirm the final decision with the panel and complete the panel's comments in a prescribed form.

The Chairman will invite the candidate back into the room to resume the session, discuss the findings and suggestions, and provide a copy to the student.

The judgment, together with the time allotted to reflect all the suggestions of the panel, will be announced by the Chairman. The time allotment to submit the final manuscript is as follows:

a) **If PASSED without revision, at the minimum of two weeks after the defense and up to the end of the trimester.**

b) **If PASSED with minor revisions, at the minimum of three weeks after the defense and up to the end of the trimester.**

c) **If PASSED with major revisions, at the minimum of one month and up to one month after the trimester has ended.**

The candidate, after the defense, continues to discuss the thesis defense findings with the thesis supervisor in improving the final manuscript.

Role of the Chairman

1. As the Chairman of the examination committee, he will be the moderator of the session and is expected to be impartial and ensure that the treatment of the candidate is fair.
2. The Chairman is responsible for ensuring that the examination is conducted at the level expected for the degree.
3. The defense is a formal event, and part of the Chairman's role is to ensure that all participants conduct themselves appropriately.
4. The Chairman has the authority to ask anybody from the audience to leave the session room if he finds the person disruptive or influencing the candidate.

Role of the Thesis Examiner (Internal and External)

1. The examiner shall assess whether the research study meets the criteria for a successful thesis, as outlined in the instructions for the defense score sheet and structure of a master's thesis as per Research Guidelines.
2. The examiner shall provide a review of the strengths and weaknesses of the thesis and recommends revisions in verbal and written form.
3. All examiners (internal and external) shall evaluate and rate the entire proceedings using the same criteria in the score sheet for final defense.

6.3 Postgraduate/Undergraduate Student's Terminal Project Course

➢ **Conduct of Project Course**

Project Proposal

1. The student will initially select a company based on the area of project that is being done. If the student is unable to find a suitable company, the project coordinator consulting with the PH and Alumni and Career Development center (ACDC) shall find a company for the student to

undertake his terminal project. The Project can also be an extension of the internship course if the curriculum has an internship course embedded in it.

2. The student, in coordination with the project coordinator and the company supervisor, needs to identify a project that will be completed by him.

3. If required, the project coordinator can assign a internal supervisor if needed (in case of Master Students) in addition to the company supervisor.

4. The student will prepare Project Proposal (PP) in consultation with the supervisor/s in the company / university and will submit it to the project coordinator who will evaluate the Project Proposal. After his evaluation the project coordinator will submit the PP to the Higher Education Council (HEC) for the approval of the projects if required by the HEC. The project proposal will also have a Gantt chart.

First Phase Project Submission

1. The student, after finishing the initial Project requirements will submit an initial report (not exceeding 20% plagiarism) to the project coordinator.

2. The project coordinator in coordinator with the company supervisor will assess the work of the students and allow the students to proceed to the final phase of the project.

Final Project Presentation

1. Upon the recommendation by the company supervisor, the student, after completing all requirements of the project will submit a final report after meeting the required plagiarism threshold (20%). The student will then make payment for the final project presentation.

2. The project coordinator reconvenes the panel of one faculty member and one external panel member

3. The final project presentation is open to the public, and to be at least one hour and fifteen minutes duration.

Postgraduate/Undergraduate Student's Terminal Project Final Presentation Guidelines

PART I: Before the Final Project Presentation

1. Prior to the Project Presentation, the members of the panel shall meet among themselves for at least 15 minutes to discuss the flow of the Project Presentation process; to explain the role of the internal and external panel members and project supervisor (if allotted); as well as the criteria and forms to be used in the evaluation of the thesis. The examining panel shall be composed of an external examiner and an internal examiner.

2. Ensure that all cell phones and electronic devices (that are not a part of the Project Presentation) have been turned off. Recording of the Project Presentation is not permitted. Picture-taking is allowed but only for official documentation purposes.

3. The project proceedings are open to the public as audience-observers (Faculty, students, and HEC representatives), but no audience participation in any part of the proceedings.

PART II: During the Defense

1. The project coordinator will organize the project presentation. The internal panel will

introduce the candidate and the members of the panel. Briefly outline the examination procedures and the criteria.

2. The candidate will give a presentation that is a brief overview of the research, findings and conclusions (approximately 30-45 minutes). No questions are allowed at this time.

3. After the presentation, the External Examiner will be given the opportunity to be the first to ask questions followed by the internal examiner.

4. When the questioning is completed, the interna panel member will ask the candidate, the audience and all other individuals who are not members of the panel to leave the room for a recess. The candidate shall wait outside of the discussion room and will be recalled returning after the deliberation of the panel.

PART III: After the Defense

During the panel's deliberation, the panel will discuss among themselves the result of the Project Presentation proceedings and come up with one of the following judgments:

Judgment	Grading System			
a) PASSED without revision	A+	4.00	95-100	Excellent
b) PASSED with minor revision	A- to A	3.67-3.89	87 - 94	Very Good
	B- to B+	2.67-3.33	76 - 86	Good
c) PASSED with major revision	C- to C+	1.67-2.33	64 – 75	Fair
	D to D+	1.00-1.33	50 –63	Satisfactory
d) FAILED and schedule for redefense	F	0.00	Below 50	Failed

The internal panel shall confirm the final decision with the panel and complete the panel's comments in a prescribed form.

The Chairman will invite the candidate back into the room to resume the session, discuss the findings and suggestions, and provide a copy to the student.

The judgment, together with the time allotted to reflect all the suggestions of the panel, will be announced by the Chairman. The time allotment to submit the final manuscript is as follows:

> a) *If PASSED without revision, at the minimum of two weeks after the Project Presentation and up to the end of the trimester.*
> b) *If PASSED with minor revisions, at the minimum of three weeks after the Project Presentation and up to the end of the trimester.*
> c) *If PASSED with major revisions, at the minimum of one month and up to one month after the trimester has ended.*

The candidate, after the defense, continues to discuss the project Presentation findings with the project coordinator / Project supervisor (if allotted) in improving the final manuscript.

Role of the Project Examiner (Internal and External)

1. The examiner shall assess whether the project meets the criteria for a successful project, as outlined in the instructions for the project score sheet and structure of a Project as per prescribed guidelines.

2. The examiner shall provide a review of the strengths and weaknesses of the project and recommend revisions in verbal and written form.

3. All examiners (internal and external) shall evaluate and rate the entire proceedings using the same criteria in the score sheet for final Project Presentation.

6.4   Format of   Postgraduate/Undergraduate Student's Thesis /Terminal Project Course Documentation

For postgraduate thesis that is conducted independently by a student. The format of the thesis will be provided to them and students will be asked to complete a certificate to confirm that the thesis project is his/her own original work and has been carried out by him/her and to certify that all secondary material has been properly acknowledged and documented. The thesis for postgraduate students should be between 10,000 to 20,000 words. The full document should include essential parts arranged per programmes.

For terminal project course that is conducted independently by a student in an organization. The format of the project will be provided for the students. The project should be between 8,000 to 20,000 words.

For graduate students, two (2) hardbound copies (with CD attached) shall be submitted to the Library and the National Library.

6.5 Capstone Project/Thesis Student Satisfaction Survey

Capstone Project/Thesis Student Satisfaction Survey will be conducted to undergraduate and postgraduate students after submission of their final report.

The College Dean discusses the results of the survey to the undergraduate and postgraduate programme head and concerned offices on a trimestral basis to identify measures which may be done to maintain good practices and improve weaknesses. This serves as input to the annual course review.

RESEARCH REGULATIONS AND GUIDELINES

(excerpts from HEC's Scientific Regulations for HEIs)

ROLES OF RESEARCHER(S) OF A PROJECT

Excerpts from Chapter one, Article 1 of the Scientific Research Regulations for Higher Education Institutions. The role of the principal researcher of the project, the associate researcher and the referee/examiner are as follows:

Main researcher: is a member of academic or scientific body or like that who join one researcher or more during the research procedures to achieve and study certain subject and who supervises and manages the research team.

Associate researcher: is a member of academic or scientific body or similar to that in the area of specialty and who participate with a main researcher or more to achieve and study certain subject. The responsibility shall be collective with the main researcher in addition to the responsibility of the task given in the area of research specialty and expertise.

Referee/investigator(s): is a member of academic or scientific body or similar to that in the area of specialty and who is tasked to examine and study a research proposal or scientific production with the objective of scientific evaluation or making a judgment in relation to specialty and methodology in addition to deciding the size of benefits resulting there from.

RESEARCH COUNCIL'S FUNCTIONS AND RESPONSIBILITIES

Scientific research is a part of the UTB's functions and aims which is in accordance to Research Regulations of the <u>Higher Education Council (HEC) , Chapter 1, Article 2</u>:
1. To enrich science and knowledge of which the institution is tasked.
2. To build scientific capabilities through formation and training of postgraduate students in various scientific research.
3. To contribute to transforming the Bahraini society into knowledge economy based on creativity and innovation.
4. To create new applications of economic returns that contributes to the diversification of income in the Kingdom.
5. To participate in achieving sustainable national and development plans and priorities for the Kingdom and to implement the national strategic of scientific research.
6. To transfer and localize new technology and to improve it in line with international updates according to the conditions and environment of the Kingdom in order to achieve the objective of comprehensive national development endeavors.
7. To improve the standard of higher education and reflect the role and contribution of its institutions in building the modern human civilization without abandoning Arabic and Islamic heritage.

UTB mapped all policies for scientific research considering the Research Regulations for Higher Education Institutions, <u>Chapter 2, Article 3:</u>

1. To be in line with research areas of priority as indicated in the national strategy of scientific research in the Kingdom as approved by the Higher Council of Education.
2. To comply with scientific research ethics and norms by implementation of the international charter of scientific research ethical codes and to create a mechanism to deal with scientific fraud.
3. To comply with the laws organizing intellectual properties in the Kingdom.
4. To ensure competition principle in funding research by scientific examination of research projects proposed and approve them before their execution and evaluate them after being achieved.
5. To identify the role of the main researcher, the associate researcher, and the referee/examiner.
6. To translate the scientific research policy into an annual executive plan.

UTB has a Research Council under the Vice President of Academic Affairs of the University, responsible of organizing scientific research with the following tasks in accordance with Research Regulations of the <u>Higher Education Council, Chapter 2, Article 4:</u>

1. To promote research excellence and conduct innovative research in specific fields of specialization.
2. To foster collaboration between researchers and industries across various fields of interest and forging strong partnerships with academic institutions, government agencies, and industry leaders to leverage resources and share knowledge.
3. To develop research policies, and procedures taking into consideration the regulatory requirements of the HEC.
4. To develop, implement and monitor scientific research plans in line with the scientific research strategy of the university in coordination with the research centers.
5. To monitor the implementation of research grants in the university.
6. To review and consolidate research centers annual budget and endorse it to the academic council.
7. To monitor budget allocated for research and ensure sufficiency to support the university research strategic initiatives.
8. To review and endorse for approval of VPAA researches and projects submitted by research centers and monitor their execution and publication.
9. To develop and manage database for scientific publication and research production in the university.
10. To oversee research conferences and events organized by research centers.
11. To prepare the annual scientific research and expenditure report of the university
12. To perform other duties that may be assigned by the VPAA.

RESPONSIBILITIES OF RESEARCH CENTERS

The aim of establishing research centers is to foster positive outcomes by actively engaging in collaborative research, innovation, and establishing strong connections with industry, government agencies, and institutions. The primary responsibilities of all Research Centres are the following:

1- To conduct innovative research based on approved research Areas.
2- To establish collaboration between researchers and related industries.
3- To recommend research policies and procedures to the research council.

4- To develop, implement and monitor college research plan and strategies in line with the scientific research strategy of the university.
5- To determine required budget for every research project and request approval from research council.
6- To implement research grants.
7- To submit Accomplishment report of the research plan including research expenditure to the Research Council
8- To providing training and development programs for faculty members and industry.
9- To approve and endorse the research projects including the research funding request to the research council.
10- To monitors the activities of the college research groups and supports these groups in attaining its goals/objectives.
11- To ensure that the research projects submitted comply with the university's research policy and ethical standards.
12- To review and endorse for approval of Research council Director requests for presentations and publications.
13- To update research centre database for scientific publication and research production.
14- To organize research conferences and events.
15- To perform other duties that may be assigned by the research council.

EXPENDING MECHANISM ON SCIENTIFIC RESEARCH REGULATIONS

UTB implements a transparent and clear mechanism of funding and spending from scientific research budgets on specified objectives of research plan and in accordance with <u>Scientific Research Regulations of the Higher Education Council, Chapter 3, Article 9 - funding scientific research and Chapter 4, Article 10</u> - expending mechanism on scientific research.

1. Purchasing research equipment and tools including computers and specialized software needed for the research project.
2. Purchasing biological, chemical and physics materials including glassware and tools and others needed for the research project.
3. Purchasing specialized books and scientific periodicals to support certain project however, such books and periodicals shall be given to the institution library after the end of the project.
4. Purchasing databases is required for execution of the research project or payment of subscription fee, therefore.
5. Purchasing specialized scientific tests and metrics or leasing equipment required to execute all or part of the research project.
6. Executing contracts with suppliers to repair and maintain equipment and machines purchased for research projects.
7. Changing existing facilities to accommodate certain research project or a group of projects such as biological safety laboratory or low shaking room or a research facility for animal caring.
8. Scientific publication expenses resulting from publication of researches made by a teaching faculty member in scientific periodicals or conference volumes and folders.
9. Expenses of organizing scientific conferences and scientific symposiums and related academic activities.

10. Travel expenses of a teaching faculty member if he is required to visit a body outside the Kingdom to perform certain research project such as compiling data or using specialized equipment which is only available with that body.
11. Scientific consultation and external services expense if required for the research project.
12. Any other expenses aiming to achieve the research project and of the nature similar to the above-mentioned items. Such expenses shall be subject to financial auditing from the General Secretariat of the Higher Council of Education.

SUPERVISORY PROCESS

Selection of Supervisor

UTB provides student(s) with a supervisor, based on the area of research specialism the supervisor has in relation to the research topic. UTB informs student(s) about research opportunities and projects available in colleges, which will be posted on the college website under each supervisor's name. Once each student is allocated a supervisor it is expected that the student will work with that supervisor until the completion of the thesis.

Supervisors Qualification

Any Faculty member who is a full-time member of the UTB is eligible to serve as a postgraduate student supervisor. The faculty member can be: Full Professor, Associate Professor, and Assistant Professor. In addition to the PhD certificate, other appropriately qualified faculty members with professional certificates may be approved to serve as a supervisor.

Withdrawal of a supervisor

If a student's supervisor resigned from the University, a new supervisor who is a full-time member of the college must be appointed. If the student has a problem with his/her supervisor, the dean of the college must appoint another supervisor to carry on the supervision process.

Processes of Supervision
- Supervisor's experience of the various methods and areas of research.
- Availability of the supervisor during research period.

The Roles and Responsibilities of the Supervisor

1. Guide the student in the selection and planning of a meaningful and appropriate research topic that can be successfully completed within allowable time limit for the graduate programme.
2. Ensure student understands the relevant theories, knowledge, and background literature, and the methodological and technical skills necessary for the research.
3. Ensure that the research environment is safe, equitable, and free from discrimination.

4. Establish a practice of regular meetings with the student at which all matters relating to the research project can be discussed.

5. Provide commentary, constructively and within a reasonable timeframe, on the student's oral and written work. This should include:

   - Being reasonably accessible for unscheduled meetings
   - Keeping track of progress and investigating any concerns

6. Alert the student to what they may expect from the supervisor by way of a critique of work.

7. Monitor progress according to agreed milestones (and revising same based on issues).

8. Ensure that the student is familiar with the University policy on plagiarism.

9. Encourage student to attend relevant taught modules

10. Assist and encourage the wider professional development of the student by means such as:

    - Participation in seminars and colloquia
    - Attendance and presentation of work at local, regional, and international conferences or fora.

11. Provide guidance on the preparation of the thesis and oral defense presentation.

12. Complete annual progress report in conjunction with the student in order to monitor the student's progress and highlight any unexpected problems which has to be addressed.

13. Assist in the selection thesis panel during the thesis defense of the student.

The Roles and Responsibilities of Student

For a successful student-supervisor relationship the student must be familiar and adhere to the rules, policies, guidelines, and procedures in place for the supervision of thesis at the graduate programme. Hence, every research student will:

1. Liaise with the supervisor in the selection of research topic which can be completed as a thesis and written up within the prescribed period of study.

2. Agree with the supervisor the basic structure of thesis/research project, an appropriate research method, a realistic plan of work, and any additional required study needed for the successful implementation of the thesis.

3. Work with the supervisor in developing important milestones and timelines such as: establishing a thesis topic; completing a literature review; achieving intermediate research goals; attending conferences; publishing paper; analyzing data; and completing drafts of the thesis.

4. Inform the supervisor of progress according to agreed milestones.

5. Establish a practice of regular meetings with the supervisor at which all matters relating to the thesis/research project can be discussed.

6. Letting the supervisor know how you can be contacted, when you will be unavoidably absent, and informing your supervisor of anything significant that may affect your academic progress.

7. Be familiar with the University policy on plagiarism.

8. Complete annual progress report in conjunction with the supervisor in order to monitor progress and highlight any unexpected problems which has to be addressed.

9. Present work in progress, and attend relevant conferences, meetings and workshops.

10. Liaise with the supervisor during preparation of the thesis and oral defense presentation.

11. Maintain records of the thesis in a manner which can be accessed and understood by anyone with a legitimate right to enquire.

Level of Supervision

One of the main responsibilities of the supervisor is to prepare student progress monitoring report of the thesis/capstone (Appendix D). This report identifies the level of the thesis progress that is done by the student. If the level of the progress is not satisfied the supervisor must suggest some recommendations or ask for help from advising thesis committee.

Conduct of Meeting and Supervision

1. The supervisor will conduct meetings in order to hear and give advice on reports of the student's progress and to answer reasonable questions. Supervisors will respond to students' questions within 5 working days. If the supervisor is unable to give an answer to a question, she/he will contact the student with the answer no more than five workings days after the meeting. Meetings records are shown in Appendix E.

2. The supervisor should attend all pre-arranged meetings or provide a notice of non-attendance, giving the student a series of alternative dates for the meeting.

3. The supervisor will be fully prepared for all meetings, having considered answers to all reasonable questions submitted by the student, and giving the best advice to assist the students to achieve their goals.

4. The supervisor will/ or will not interfere in the direction or objectives of the thesis.

5. The supervisor may look at outlines of work and will read drafts.

6. Students will not expect supervisors to correct grammar, but some supervisors may do so.

Capstone Project/Thesis/EDP Student Satisfaction Survey

- Capstone Project/Thesis Student Satisfaction Survey will be conducted to undergraduate and postgraduate students after submission of their final report.

- The College Dean discusses the results of the survey to the undergraduate and postgraduate programme head and concerned offices on a trimestral basis to identify measures which may be done to maintain good practices and improve weaknesses. This serves as input to the annual course review.

LIBRARY RESOURCES

The UTB Library can help students with all the information they need. The library is located in the main building of the UTB. The library has well-trained staffs who can assist them in locating the information either print or no-print materials. The library can be reached at Tel :(+973) 17787963. The UTB library provides a range of up-to-date information in all fields of sciences. There are collections of textbooks to cover the requirements of the College's undergraduate courses; journals to support the College research activities; website access to a range of e-websites for publications including:
UTB Online Database Resources (http://libresources.utb.edu.bh).

ONLINE DATABASE RESOURCES
1. ACM Digital Library
2. ASPP – IEEE
3. IEEE Online Standards
4. EBSCO Online Database:

    4.1 **Academic Search Primer.**

    4.2 **Business Source Primer.**

    4.3 **Regional Business News.**

    4.4 **ERIC (Education Resource Information Center).**

5. AIS (Association of Information Society).

UTB LIBRARY SYSTEM
 (http://libsys.utb.edu.bh)
Officially enrolled students are required to register through any of the library staff for the usernames and passwords to access the library system and online databases.

How to access the Online Databases:
1. Log in through the assigned username and password.
2. Select a database.
3. Click the search box.
4. Search result will be displayed.
5. Refine your result by using the following:
   - Full text / what I can access.
   - Publication Year
   - Subscribed Titles / Journals
   - Author
6. Read the summary of each database to provide you with more helpful tips on how to use the resources.

The UTB library provides a high-quality study environment with both personal and collaborative study facilities, such as, places to read, computers, and I-pads.

GUIDELINES ON USING PLAGIARISM

UTB uses a proper detection Turnitin plagiarism system to scan work for evidence of plagiarism. This system has access to many sources worldwide (journals, books, articles, magazines, websites and more.)

The Turnitin plagiarism system will need work to be submitted electronically (soft copy) as well as in paper form (hard copy). To strengthen the intellectual ethics and the anti-plagiarism best practices at UTB, the following are implemented for students.
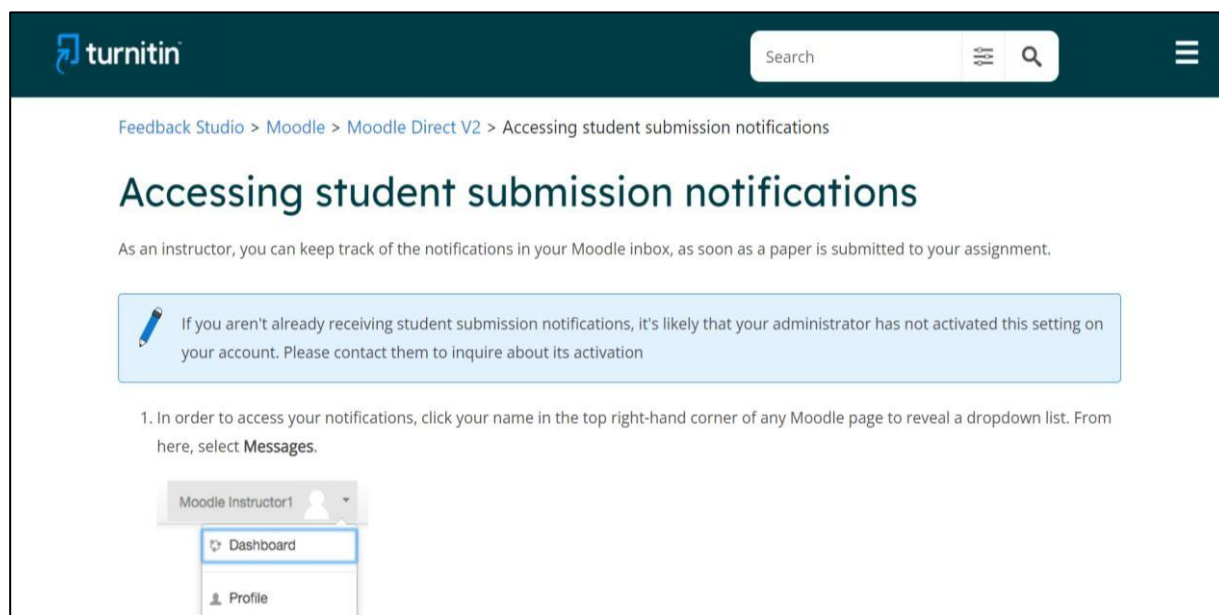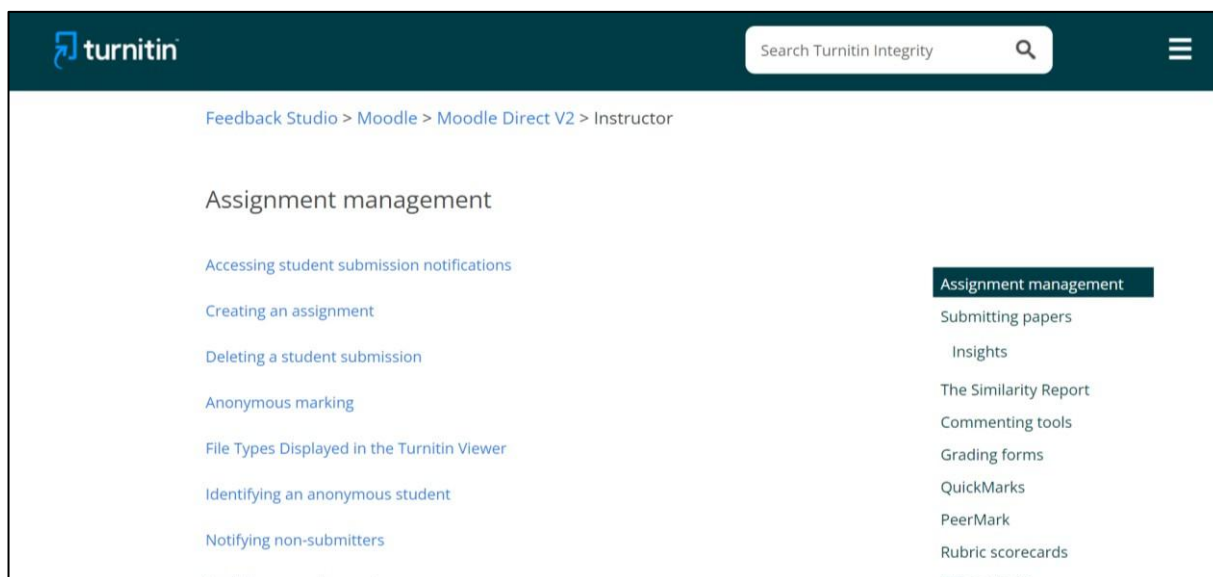
GUIDELINES ON USING PLAGIARISM SOFTWARE FOR STUDENT'S WORK.

1) Before a student or group of students is allowed to schedule for final oral presentation, he/she/they must submit the final draft of his/her/their document to the advisor.

2) After the evaluation of the submitted document, the advisor notifies the student(s) to upload the document into the check for plagiarism software – licensed for UTB use.

3) The advisor downloads the documents into the check for plagiarism software and notifies the student or group of students on the result of the anti-plagiarism report.

4) For thesis, capstone, design project, similarity index should not exceed 20 %.

5) For practicum/industrial attachment, similarity index should not exceed 20 % including bibliography.

6) Only a student or group of students who meets the prescribed threshold is allowed to schedule his/her/their oral presentation.

7) A student or group of students who did meet the prescribed threshold is given a chance to revise the document. After revision, follow the same process specified in guidelines 1-5.

8) The anti-plagiarism report as mentioned in 1-5 should be part of the cited reports as appendix.

9) Any violation of research ethics and plagiarism policy will subject a student or group of students to the university penalties.

HOW TO ACCESS THE PLAGIARISM SOFTWARE:

Log in to www.turnitin.com

APPENDICES

Approval Sheet

This thesis entitled, "_____", prepared by _____ is hereby recommended for oral examination.

Thesis Adviser

Approved by the Panel of Oral Examination with a grade of _____

-----------------------------------   -------------------------

Panel Member   Panel Member

External Member

Final Approval

Accepted and approved in partial fulfilment of the requirements of for the degree,

_____

_____

Dean, College of _____

_____

VP, Academic Affairs

UTB RESEARCH CERTIFICATION

Thesis Title: _____

Supervisor Name: _____

Student Name: _____

1. *I confirm that the work in this Research Project is original, that there is no conflict of interest and that it has been carried out by me.*

2. *I confirm that all secondary material has been properly acknowledged by me and referenced in this thesis.*

Name: _____

Signed: _____

Date: _____

	Doc. No.	QR-RC-002
University of Technology Bahrain	Revision No.	01
College/Department:	Date of Effectivity	16-09-24

THESIS ORAL DEFENSE APPLICATION

THE DEAN _____

COLLEGE _____

This is to certify that Mr. / Ms. _____ ,

a candidate for the degree _____ major in _____ ,

had satisfactorily completed the thesis / project entitled:

_____

_____

under my / our supervision and is now ready to defend it.

_____ _____

Signature over Printed Name of Thesis Writing Adviser

Signature over Printed Name of Thesis Writing Professor

THESIS ORAL DEFENSE APPROVAL

Thesis Proposal Verification		Thesis Writing Verification	
Date of Enrollment		Date of Enrollment	
Approved Title		Approved Title	
Remarks (if any)		Remarks (if any)	

Schedule of Oral Examination	Date	Day	Time	Room

Panel Members		

Recommending Approval	Approved by
Thesis Writing Adviser	Dean
Department Head	Head, Academic Affairs

University of Technology Bahrain	Doc. No.	QR-RC-003
	Revision No.	01
College/Department:	Date of Effectivity	16-09-24

RESEARCH PROGRESS MONITORING REPORT

Program		Course	
Proponent(s)/Student(s)			
Title			

Expected Completion Date (Show as per Gantt Chart)	
Date	

To be accomplished by the Proponent(s)/Student(s)	To be accomplished by the Professor
Completed Chapter(s)/Parts	Comments and/or Suggestions
Chapter / Part in Progress	Comments and/or Suggestions
Difficulties Encountered	Comments and/or Suggestions
Changes from Previous Plan, if Any	Comments and/or Suggestions

_____   _____

Proponent(s)/Student(s)   Professor

Note : This progress report form must be accomplished by the student(s) and professor for monitoring the research progress of the students. This form must be included as part of the documentation submitted upon completing the thesis/research/project/ business plan.

University of Technology Bahrain	Doc. No.	QR-RC-004
	Revision No.	01
College/Department:	Date of Effectivity	16-09-24

ETHICAL ASSESSMENT FORM

APPLICATION FOR ETHICAL APPROVAL OF A RESEARCH PROJECT

This application form is to be used by faculty, staff and students seeking ethical approval for an individual or group research project.

A completed version of this document should be submitted to the research committee in the College. Applications must be completed on this form; attachments will not be accepted other than those requested on this form.

Research must NOT begin until approval has been received from the appropriate Research Committee.

Section 1: Applicant Details

Applicant Name	
Contact Email	
Academic Unit	
Applicant Type	□Faculty □Staff □Undergraduate □Postgraduate

Section 2: Project Details

Project Title	
Organisation / involved	
Proposed Start / End Date (dd/mm/yyyy)	
Category	□ Faculty/Staff Research □ Undergraduate Research

	□ Postgraduate Research
Preliminary Ethical Flag(s)	□ Animals
	□ Environment
	□ International
	□ Data
	□ Humans Non-Clinical
Supervisor (Student Researches only)	
Is this a re-approval of an existing project?	□Yes □ No
Project type: Please mark the predominant nature of this project	Questionnaire / Survey
	□ Experiments
	□ Observational
	□ Data based
	□ Other- define:
Has Peer Review taken place	□Yes Journal to Which it is being Published:
	□ No

Section 3: Project Outline & Proposed Research methods

a. Project outline and aims.

Briefly describe the aims of this research, including the anticipated benefits and risks. This description must be in everyday language. If any jargon, technical terms or discipline-specific phrases are used, these should be explained. Please use no more than 500 words.

b. Proposed research methods (_____)

Please provide an outline, in layman's terms, of the proposed research methods. Specify whether the research will take place inside or outside of Bahrain or in collaboration with partners based outside Bahrain, and/or if research will take place using the internet. Present an outline of the method in a step-by-step chronological order, and avoid using jargon and technical terms as much as possible. Ensure you describe the key tasks including how data will be collected and used. Please do not exceed 500 words.

Section 4: Environment

(Complete this section only if the project was flagged 'environment' at preliminary review.) Please provide the locations in which your research will take place, together with the anticipated risks (destruction of habitat or artifacts/emissions, etc.), potential damage and mitigating measures planned. Please use no more than 700 words.

Section 5: Human participants in a Non-Clinical Setting (Complete this section only if the project was flagged 'Human Participants in a Non-Clinical Setting' at preliminary review)

Participant Details

Does this research specifically target participants recruited by virtue of being (select all that apply):	□ Students or faculty/staff of this University
	□ Adults (over the age of 18 years and competent to give consent)
	□ Children/legal minors (anyone under the age of 18 years)
	□ Persons incapable of giving informed consent
	□ People from non-English speaking backgrounds
Source and means by which participants are to be recruited:	Formal/Informal communication.

Participant Information	YES	NO
Will you inform participants that their participation is voluntary?		
Will you inform participants that they may withdraw from the research at any time and for any reason?		
Will you inform participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?		
Will you provide an information sheet that will include the contact details of the researcher/team?		
Will you obtain written consent for participation?		
Will you debrief participants at the end of their participation (i.e., give them an explanation of the study and its aims and hypotheses)?		
Will you provide participants with written debriefing (i.e., a sheet that they can keep that shows your contact details and explanations of the study)?		
If using a questionnaire, will you give participants the option of omitting questions that they do not want to answer?		
If an experiment, will you describe the main experimental procedures to participants in advance, so that they are informed about what to expect?		
If the research is observational, will you ask participants for their consent to being observed?		

Participant Consent

Please describe the arrangements you are making to inform participants, before providing consent, of what is involved in participating in your study and the use of any identifiable data, and whether you have any reasons for withholding information. Due consideration must be given to the possibility that the provision of financial or other incentives may impair participants' ability to consent voluntarily. (No more than 300 words)

Participants should be able to provide written consent. Please describe the arrangements you are making for participants to provide their full consent before data collection begins. If you think gaining consent in this way is inappropriate for your project, please explain how consent will be obtained and recorded. (No more than 300 words)

Participant debriefing

It is a researcher's obligation to ensure that all participants are fully informed of the aims and methodology of the project, that they feel respected and appreciated after they leave the study, and that they do not experience significant levels of stress, discomfort, or unease in relation to the research project. Please describe whether, when, and how participants will be debriefed. (No more than 300 words)

N/A

Potential risk to participants and risk management procedures

Identify, as far as possible, all potential risks (small and large) to participants (e.g. physical, psychological, etc.) that may be associated with the proposed research. Please explain any risk management procedures that will be put in place and attach any risk assessments or other supporting documents. Please answer as fully as possible. (No more than 300 words)

[ ]

Section 6: Data

Please attach a copy of your data management plan (if available) or alternatively note where appropriate: whether consent will be sought, how data will be accessed, how participants' confidentiality will be protected, and any other relevant considerations. Information must be provided on the full data lifecycle, from collection to archive.

[ ]

Section 7: Permissions (Including Overseas)

Overseas: For any research conducted outside Bahrain the researcher is responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. If relevant please complete the table below otherwise move on to the permissions table.

Is the research to be conducted outside Bahrain?	□Yes □ No
If 'Yes' please state the location(s):	Pakistan
Have the appropriate local ethical considerations been complied with and relevant permissions sought?	□Yes □ No

Permissions: Please use the table below to record details of licenses or permissions required and / or applied for e.g. governing body, etc along with the reference, status and the date when it was granted.

Awarding Body	Reference Number	Date of Permission	Status e.g. Granted / Pending

Section 8: Risk Considerations

Potential risk to researchers and risk management procedures. What are the potential risks to researchers themselves? This may include: personal safety issues, such as those related to lone or out of normal hours working or to visiting participants in their homes; travel arrangements, including overseas travel; and

working in unfamiliar environments. Please explain any risk management procedures that will be put in place and attach any risk assessments or other supporting documents. (No more than 300 words)

Section 9: Supporting documentation

Please supply copies of any applicable and documents in support of your answers. Ensure that attached files have appropriate file names.

Document	Attached
Participant consent form	
Participant information sheet	
Participant debriefing document	
Questionnaire(s)	
Outline protocol	
Project risk assessment	
Travel risk assessment	
Data management plan	
Peer review evidence (Internal / non funded)	
Local permissions / licenses	
Other ethical review forms	
Others (please list): Covering Letter	

Section 10: Declaration

I certify that the information contained in this application is accurate. I have attempted to identify the risks that may arise in conducting this research and acknowledge my obligations and the rights of the participants. I confirm that the research will be conducted in line with all University, legal and local ethical standards.	
Name of Principal Investigator:	
Signed:	
Date:	

The appropriate Ethics Committee has considered the ethical aspects of this proposal. The committee recommends that the project be:

□ approved

□ deferred (for reasons attached)

□ not approved

Name of Committee Member:	
Ethics Committee Concerned:	
Signed:	
Date:	

University of Technology Bahrain	Doc. No.	QR-RC-005
	Revision No.	01
College/Department:	Date of Effectivity	16-09-24

<table>
<tr><td colspan="3" align="center">Research Student Satisfaction Survey</td></tr>
</table>

INTRODUCTION

This questionnaire is designed to determine your current level of satisfaction with your experience at UTB as a research student. Its purpose is to identify aspects of the University's operation and services which are performing well and those which need improvement.

We intend to follow up those areas which most respondents identify as needing significant improvement. So, to ensure that your views are considered, please make every effort to fill out and return the questionnaire.

The Questionnaire is divided into several sections. The data collected in this survey may be used in research aimed at improving the quality of learning and teaching at UTB. In reporting this research in presentations and publications individuals will never be identified.

INSTRUCTIONS

For each item, please fill in the box which best describes your rating of its satisfaction. Rank how satisfied you think each aspect is on the five-point importance scale.

5-very satisfied   4-satisfied   3-moderately satisfied   2-slightly satisfied   1-not satisfied

A. ACADEMIC SUPPORT

With the following items we seek your views on the satisfaction of various aspects of the academic support provided for you as a research student. For each item, please fill in the box which best describes your rating of satisfaction.

ITEMS	Satisfaction				
IN RELATION TO MY RESEARCH, MY ADVISER/S:	**5**	**4**	**3**	**2**	**1**
1. Are available when I need them					
2. Give me sufficient support in defining my topic					
3. Give me sufficient support in planning my research work					
4. Give me sufficient support in doing literature searches					
5. Give me sufficient support in planning and writing my thesis					

ITEMS	Satisfaction				
IN RELATION TO MY RESEARCH, MY ADVISER/S:	5	4	3	2	1
6. Give me timely feedback when I submit written material					
7. Have clearly explained issues such as intellectual property, confidentiality, research ethics & plagiarism					
8. Encourage me to publish my work					
9. Encourage me to give conference papers					
10. Provide expert advice on my area of research					
11. Meet/s my expectations about agreed working protocols (eg., work turn-around, availability)					
12. Manage/s the advisory panel arrangement effectively					
13. Assist/s me with judging my progress against an agreed timeline					
14. Clearly advise me on the structure of my thesis, the technical specifications, layout, binding and so on					
15. Clearly advise me on the standard of work required for my thesis					
16. Clearly advise me on what will happen during the thesis examination process					

B. Outcomes of your study

The following items concern which outcomes of the research degree you are undertaking at UTB that are most satisfied to you and the extent to which you feel the degree promotes these outcomes. For each item, please fill in the box which best describes your rating of its satisfaction to you and your experience.

ITEMS	Satisfaction				
MY RESEARCH DEGREE PROMOTES THE DEVELOPMENT OF:	5	4	3	2	1
1. An ability to think critically					
2. An ability to solve problems successfully					
3. A capacity for creativity and innovation					
4. Up-to-date knowledge and skills in my field					

	5	4	3	2	1
5. Ethical values in human and/or animal research					
6. A respect for alternative viewpoints					
7. Capacity to manage my time effectively					
8. An ability to see how the outputs of my research might productively be used					
9. The skills necessary to plan and undertake independent study and research					
10. Knowledge of intellectual property issues such as copyright, patents, confidentiality					
11. Skill in oral and written communication					
12. Ability to contribute to scholarship in my discipline or field					
13. The ability to work as a member of a team					
14. An ability to handle the unexpected effectively					
15. A capacity to contribute to the development of professional practice in my field					
16. Understanding of the need for validity and accuracy in the conduct of research					
17. Understanding of the need for presentation and discussion of work at scholarly meetings					

C. Research Resources Policy

The following questions concern the University's 'Research Resources' Policy. All research students are covered by this policy. For each item, please fill in the box which best describes your rating of its satisfaction to you.

ITEMS	Satisfaction				
Research Higher Degree Candidature Essential Resources Policy:	**5**	**4**	**3**	**2**	**1**
1. Provides adequate support in securing resources					
2. Is well administered by my college					
3. Allows equal access to resources to all students					
4. Encourages students to spend time on campus					

ITEMS	satisfaction				
5. Has been clearly explained and I know how to access the resources I am entitled to					
6. Has clear pathways to follow in accessing resources					

D. Library

The following items seek your views on the satisfaction of a range of services provided by UTB library.
For each item, please fill in the box which best describes your rating.

ITEMS	satisfaction				
UTB LIBRARY SERVICES meet my needs in the following areas:	5	4	3	2	1
1. Library Desk Service					
2. Provision of quiet study areas					
3. Assistance provided by Library staff					
4. Inter-library loan services					
5. Remote access to UTB and other library catalogues					
6. Electronic Access to Library resources					

E. Research Culture

The following questions are in regard to the Research Culture at your College/Research Centre/School/Research Group. For each item, please fill in the box which best describes your rating.

ITEMS	Satisfaction				
Research Culture	5	4	3	2	1
1. My College/Research Centre/School/Research Group promotes a research culture					
2. I feel included in College/Research Centre/School/Research Group culture.					
3. The research culture of my College/Research Centre/School/Research Group is adequate for my needs.					

F. Computing and Infrastructure

The following items seek your views on the satisfaction of a range of computing infrastructure and research support services provided by UTB. For each item, please fill in the box which best describes your rating.

ITEMS	Satisfaction				
UTB COMPUTING FACILITIES meet my needs in the following areas:	**5**	**4**	**3**	**2**	**1**
1. Quality of computing equipment					
2. Quality of software					
3. IT Help and Support					
4. Availability of computers					
5. Technical support and repairs					
MY RESEARCH SUPPORT & INFRASTRUCTURE NEEDS are met in the following areas:	**5**	**4**	**3**	**2**	**1**
6. UTB working space and facilities					
7. Working space and facilities other than UTB					
8. Orientation by the Office of Research Services					
9. UTB College forum and events					
10. Timely information about seminars and workshops					
11. Knowing where to go in my College for assistance if I have issues about my research or supervision					
12. Knowing where to go at UTB for assistance about research or supervision issues which the College is unable to resolve					

![University of Technology Bahrain]	Doc. No.		QR-RC-006
	Revision No.		01
College/Department:	Date of Effectivity		16-09-24

SCORE SHEET IN ORAL DEFENSE

Name		Presentation Date	
Degree		Room	
Major		Time	

Thesis/Capstone Project Title	
Adviser	

Criteria	Weight %	Rating	Remarks / Suggested Improvements
Total			

_____

Rater Signature over Printed Name

Summary of Ratings

Panel	Percentage	Name	Signature
Committee Chair	%		
External Member	%		
Internal Member	%		
Average	%		

University of Technology Bahrain	Doc. No.	QR-RC-007
	Revision No.	01
College/Department:	Date of Effectivity	16-09-24

RESEARCH TOPIC PROPOSAL (RTP)

Name of Proponent(s)	
	☐ Faculty ☐ Staff ☐ Student
Proposed Title	
Locale of the Study	
Background and Rationale of the Study	

Statement of the Problem	General
	
	Specific
	  1.
	  2.
	  3.
	  4.

Expected outputs	
D. Research Methodology	
Educational, Social or Scientific Value of the Research	

Gantt Chart

Activities	Time Frame																62

RESEARCH WORK AND FINANCIAL PLAN

Descriptions	Budget requirements	Remarks

Reviewed by:	Approved by	Endorsed by:
Research Coordinator	Research Center Head	College Dean
Date:	Date	Date:

University of
Technology
Bahrain