



Research Policies & Procedures

Second Edition

Office of Research & Graduate Studies

Contents

1. General Principles	1
1.1. Purpose	1
1.2. Background	1
1.3. Definitions	1
1.4. Areas of Research Priority	1
2. Offices, Councils, and Committees that Support Research	2
2.1. Office of Research & Graduate Studies	2
2.2. University Research & Graduate Studies Council	3
2.3. Advisory Research Committee	3
3. Academic Policies	3
3.1. Research Integrity	3
3.2. Investigator Eligibility	3
3.3. Conference Attendance	3
3.4. Sabbatical Leave	4
3.5. Research Misconduct	4
3.6. Procedures for Investigating Research Misconduct	5
3.6.1. Screening Stage	5
3.6.2. Inquiry Stage	5
3.6.3. Investigation Stage	6
3.6.4. Disciplinary Stage	6
3.7. Research Compliance	6
3.7.1. Human Subjects	7
3.7.2. Animal Subject	7
3.7.3. Environmental Health and Safety	7
3.8. Conflict of Interest	7
4. Funding Research	8
4.1. Policy Statement	8
4.2. Solicitation	8
4.3. Types of Funding	8
4.3.1. Internal Funding	8
4.3.2. Sponsored Research	9
4.4. Procedures for Internal Research Funding	11
4.4.1. Start-up Funding Requests for New Faculty	11

4.4.1.1. Policy Statement	11
4.4.1.2. Overview of process	11
4.4.1.3. Detailed Chronology of Process	12
4.4.2. Internal Research Proposal Applications	13
4.4.2.1. Pre-award Process	13
4.4.2.2. Post-award Process	13
4.4.2.3. Account Closure	14
4.5. Procedures for Sponsored Research Proposal Applications	14
5. Research Centers and Chairs	14
5.1. Water Research Center (WRC)	14
5.2. Technology Innovation Centers (TIC)	15
5.3. Research Chairs	16
6. Facilities and Laboratories	16
6.1. Proposed Research Laboratories & Technology Incubator Center Building	16
6.2. King Abdulaziz City for Science & Technology	17
6.3. King Faisal Specialist Hospital & Research Center	17
6.4. Security Forces Hospital	18
6.5. Saline Water Conversion Corporation	18
6.6. Center of Excellence for Research in Engineering Materials	18
6.7. Other Facilities	19
7. Student Participation in Research	20
7.1. Capacity Building	20
7.2. Protection of Students	20
7.3. Recognition	20
7.4. Graduate Research	20
8. University Outreach	20
9. Budgeting & Finance	21
9.1. Financial Management of Externally Funded Research Projects	21
9.2. Budgeting and Reporting Projects	21
9.3. Procurement	22
9.4. Authorization and Release of Payment	22
9.5. Direct Costs	22
9.6. Facility and Administrative Costs	22
9.7. Contracting	23
9.8. Capital Asset Purchase and Control	23
10. Intellectual Property	23
10.1. Ownership of Intellectual Property	24
10.1.1. Creator-Owned Intellectual Property	24
10.1.2. University-Owned Intellectual Property	24
10.2. Ownership of Intellectual Property Financed by Outside Sponsors	24
10.3. Intellectual Property and Conflicts of Interest	24
10.4. Ownership, Control, and Transfer of Tangible Research Property	24
10.5. Procedures for Intellectual Property Reporting, Evaluating, Protecting & Commercializing	25

10.5.1. Disclosures	25
10.5.2. Commercialization of Creator-Owned Intellectual Property	25
10.5.3. Transfer of Intellectual Property to Creators	25
10.5.4. Intellectual Property Revenue	25
10.5.4.1. Distribution of Income from Intellectual Property	25
10.5.4.2. Distribution of Net Equity Income Received from Intellectual Property	26
Appendix 1: Research Priority Areas	27
Appendix 2: Forms	36
• <i>New Faculty Start-Up Funding Request (SUFR08)</i>	37
• <i>Pre-Proposal Application (PPA08)</i>	38
• <i>Internal Research Proposal Submission Guidelines & Application (IRPA08)</i>	39
• <i>Award Notice (AN08)</i>	46
• <i>Reviewer Acceptance (RA08)</i>	47
• <i>Research Proposal Evaluation (RPE08)</i>	48
• <i>Advance Payment Request</i>	52
• <i>Expense Report</i>	53
• <i>Purchase Requisition</i>	55

1. General Principles

1.1. Purpose

This document outlines the policies and procedures governing research sponsored and conducted in collaboration with Alfaisal University. It sets forth definitions, policies, and procedures for approval, processing, budgeting, and accounting for research funded from internal and external sources as well as ethical practices.

1.2. Background

Eminence in research is crucial to achieving the University's goals of becoming a leading educational institution and a model in the region. It is also a critical component to the University's mission of conducting world class research that benefits the Kingdom of Saudi Arabia, the region and the world. Collaboration between Alfaisal University and individuals, companies, and other universities in the local environment is fundamental to conducting research which can be applied to benefit and develop society.

1.3. Definitions

Statements defined below are to be applied in interpretation of these regulations:

Scientific Research: Search for knowledge that is built on a scientific basis, and accomplished as a result of individual or joint effort.

Principal Investigator: a faculty member or equivalent, who represents the research group or is assigned the mission of supervision and management of the whole group.

Co-Investigator: a faculty member or equivalent, who participates with a group of researchers on a project.

Reviewer: a faculty member or equivalent, who is an expert in the field and who is assigned to review a scientific project.

Adviser: a faculty member or equivalent who is an expert in the field and who provides service or advice.

1.4. Areas of Research Priority

The University provides support for research in areas of science, engineering, medicine, and business with the aim of promoting productive investigation and creative scholarship. This support includes release time from teaching, additional salary if research is carried out in summer holidays, per diem support to attend internationally recognized conferences to present papers, purchase of equipment and all expendable items, and reimbursement of costs related to telephone/fax charges.

The following are the priority areas of research for Alfaisal University with more detailed information being available from respective colleges and departments and Appendix 1:

- **SCIENCE & TECHNOLOGY**
 - Water
 - Energy

- Oil & Petrochemicals
- Information Technology
- Aerospace
- Mining & Metals
- Environment & Natural Resources

- **HEALTH, BIOMEDICINE & PHARMACEUTICALS**
 - Diseases
 - Surgery
 - Gerontology
 - Genetics
 - Biotechnology & Biomaterials
 - Comparative Effectiveness
 - Translational Research

- **BUSINESS**
 - Diversification of Economic Base
 - Domestic & Foreign Investment
 - Economic, Social, Environmental & Cultural Impact of Globalization
 - Balanced Regional Development
 - E-Business & E-Government

2. Offices, Councils and Committees that Support Research

2.1. Office of Research & Graduate Studies

The Office of Research & Graduate Studies (ORG) is responsible for assuring adherence to the University's and sponsor's policies and procedures, and for following ethical standards in conducting research. It provides direction and guidance in the development, identification, and securing of funding sources as well as proposal development, submission, administering and closure of awards. The Office will convey quality services related to development of research projects, compliance in the conduct of research, intellectual property, technology transfer, and governance issues related to sponsored programs.

Services will be provided to University faculty and staff through administrative support for research projects. In addition, the Office will provide an important interface with public and private members of the external community that have a vested interest in research. It is responsible for management and promotion of research activities that are carried out by the academic departments through external or internal funding.

The functional responsibilities of the Office of Research & Graduate Studies include activities such as funded research projects, release time, and research scholarship programs. The University Research Council and the Advisory Research Committee are also under the responsibility of the ORG.

2.2. University Research & Graduate Studies Council

The University Research & Graduate Studies Council, which is chaired by the Vice President for Research & Graduate Studies, is responsible for recommending proposals for internal research funding, when funds become available, based on expert technical reviews. In addition, it is responsible approving and reviewing research priority areas for the University, as well as other research related matters. The Council membership will consist of faculty members from the different colleges and disciplines within the institution. Since the University is in its early stages, the exact composition of the Council will be determined later.

2.3. Advisory Research Committee

The Advisory Research Committee serves in a consultative capacity to the Vice President for Research & Graduate Studies on issues pertaining to research priorities, policies and procedures, and to ensure good governance and best practice. It is composed of internal and external members from different disciplines and research backgrounds. Members of the Committee include faculty from the University and experts with similar ranking from external entities such as The King Abdulaziz City for Science and Technology (KACST), KSU and KFSHRC.

3. Academic Policies

3.1. Research Integrity

The demonstration of professional integrity by faculty members includes recognition that society at large will judge the profession as well as the institution by their statements and behavior. Therefore, faculty members should strive to be accurate, to exercise appropriate restraint, to be willing to listen to and show respect to elements of society at large expressing different opinions.

Scholarly conduct must avoid fabrications, falsifications, plagiarism and other practices that deviate from accepted scholarly work. Faculty must apply academic rigor and integrity in obtaining, recording and analyzing data as well as in reporting and publishing results;

Faculty undertaking research should do so in a manner consistent with professional honesty and within the public interest. Research should be designed to enhance knowledge in a particular field of scholarship and should demonstrate sound methodology, accuracy and maintain the factual integrity of the data.

Faculty must use funds designated for research purposes in the prescribed manner.

3.2. Investigator Eligibility

The Principal Investigator (PI) must be a full-time faculty member at Alfaisal University. Co-Investigators may be from Alfaisal or another institution. A Co-Investigator must consent to take over the project in the event that the PI is unable to continue.

3.3. Conference Attendance

The University encourages its faculty members to participate in conferences and professional meetings sponsored by leading societies and held both within the

Kingdom and abroad. Attending such conferences permits an exchange of new ideas, concepts, and developments. It enables faculty members to build up and execute their own research and allows the University to be recognized as a leading research center.

Faculty members may apply at the Department/College level for a travel grant to attend a conference provided they are presenting a paper, talk, or poster session. Normally, Colleges or Departments would have funds to do this. In general, the University, depending on the availability of funds, will support attendance by the faculty member to no more than one international conference each year, however, in some instances these costs are covered by the conference organizers. Support ordinarily covers per diem costs, conference registration fees, and round trip business air travel.

3.4. Sabbatical Leave

The objective of sabbatical leave is to provide faculty with a change of environment in order to pursue scholarly activities, as well as to interact directly with scholars in leading academic and research institutions. Scholarly activities that are considered for sabbatical leave may include pursuing and extending ongoing research, initiating research in new and diverse areas, working in industry in the area of research and development, gaining research-orienting experience or creating an engineering design or product, and writing a research-oriented book or monograph. Faculty members are eligible for sabbatical leave in accordance with the guidelines outlined in the *Faculty Handbook*.

3.5. Research Misconduct

This section outlines the conditions that protect and encourage the Faculty in its scholarly pursuits. The University requires that those engaged in scholarship be dedicated to the highest ethical standards. Misconduct in scholarship by any member of the university community threatens the university as well as the individual. The policies set forth here apply to all faculty members and provide for an objective examination of pertinent facts, protection of individual rights, and integration with other relevant review procedures, all under the general supervision of the Provost as the senior academic administrator.

Scholarly misconduct includes fabrication, falsification, plagiarism, inappropriate allocation of authorship credit, or other serious deviation from accepted practices in proposing, carrying out, or reporting technical results and expenditure of funds from research, educational or other scholarly activities; or retaliation of any kind against a person who has not acted in bad faith and who reported or provided information about suspected or alleged misconduct; or failure to comply with regulatory requirements affecting specific aspects of the conduct of research, e.g., the protection of human subjects and the welfare of laboratory animals.

Scholarly Misconduct does not include honest error or honest differences in interpretations or judgments of scholarly matters. If the alleged misconduct is not substantiated, the University will undertake diligent efforts to restore the reputation of those under investigation. Should either the inquiry or the investigation show that the allegations of misconduct were not made in good faith, those making the allegations will themselves be subject to disciplinary action.

Decisions regarding alleged misconduct procedures should yield a just decision based on the best and most complete information available. Any decisions should be based

on the expert judgment of individuals qualified in the respective scientific field, using scientific interpretations and standards of proof, with a minimum of procedural complications. At the same time, however, the process must be fair and afford all parties an equal chance to present their best arguments. The confidentiality of all parties in a dispute must be preserved to the extent consistent with the University's obligations to research sponsors and to the scientific community. Acrimony and recriminations are undesirable, so adversarial interactions should be avoided. The process should move speedily, yet haste and error must be avoided.

Guided by these principles, Alfaisal University has established a policy with four procedural stages. In the screening stage an accusation of research misconduct is brought to the Vice President for Research & Graduate Studies who will examine the charges to ensure they are potential violations of the misconduct policy and, if so, to pass the case along to an Inquiry Panel. The inquiry stage evaluates the merits of the case, determining whether there is sufficient evidence of misconduct to merit a full investigation. The investigation stage entails a detailed examination of the case to resolve the facts ("Was this or was this not an instance of misconduct?"). Ascertaining whether or not misconduct occurred is a judgment about collegial conduct that should be resolved on its merits. If at any stage in the process it becomes evident that there was no misconduct, vigorous efforts must be made to minimize and remedy any adverse consequences for the respondent's career and reputation. If misconduct is established, then the case is referred to the disciplinary stage.

3.6. Procedures for Investigating Research Misconduct

3.6.1. Screening Stage

Initial reports of alleged research misconduct must be brought to the attention of the person with administrative responsibility for the individual whose actions are in question. That person must in turn report the allegations to the Vice President for Research & Graduate Studies. Care must be taken to protect the privacy of those who report apparent misconduct. The Vice President will promptly examine the case and determine if the case falls under the misconduct policy. If so, the inquiry stage will be followed.

3.6.2. Inquiry Stage

The Vice President for Research & Graduate Studies will immediately inform the respondent in writing of the accusation and that an inquiry has been initiated. The Vice President will prepare a list of proposed members for the Inquiry Panel. The respondent may challenge the inclusion of specific individuals to this panel by stating his or her objections in writing. The Vice President will then select the Inquiry Panel.

The inquiry will be conducted by a Panel consisting of two Faculty members and one academic administrator. The Panel should take no more than 30 days to conduct its inquiry and determine whether or not there is a reasonable basis to conclude that misconduct has occurred. During this discovery stage, the only persons who may be present during fact-finding sessions are the Inquiry Panel members, and any witnesses (e.g. respondent, complainant, other faculty/staff) called by the Panel. If the respondent is not available to attend, the Provost will fairly resolve the conflict between timeliness and the respondent's right to be present.

If a majority of the Inquiry Panel finds there is reasonable basis to conclude that misconduct occurred, then the matter must proceed to the investigation stage. The Inquiry Panel reports the results of its inquiry in writing to the Provost. The Provost will advise, in writing, the respondent and the complainant of the Inquiry Panel outcome. If there is to be an investigation, the Provost must advise the respondent in writing of the specific charges to be investigated. At that time, any collaborators and sponsoring agencies involved must be informed of the allegations.

3.6.3. Investigation Stage

Investigation of alleged misconduct will be conducted by a committee appointed by the Provost. The committee will be comprised of a minimum of three specialists in the subject area of the respondent and will include one individual from outside Alfaisal University. The Provost will prepare a list of proposed members for the Investigation Panel, which may include persons who served on the Inquiry Panel. The respondent may challenge the inclusion of specific individuals by stating any objections in writing. The Provost will then select, and appoint, the Investigation Panel. The Panel will elect its own Chair.

The Investigation Panel will determine whether there was academic misconduct. The Panel will follow the procedures for dealing with charges brought against a Faculty member as described herein and will seek to provide factual information in a manner that is fair to all parties. The Investigation Panel should take no more than 60 days to complete the investigation and to prepare a written report of its findings including a recommendation on the disposition of the case. The Panel should follow pertinent regulations of the agency or agencies that sponsored the research under investigation. The Investigation Panel will submit its report to the Provost, who in turn may notify the sponsoring agency of the findings of the investigation.

3.6.4. Disciplinary Stage

For individuals found to have committed scholarly misconduct, the Provost may take one or more of the following actions: (a) give a letter of reprimand; (b) monitor their work performance; or (c) recommend removal from a specific research project. Other, more severe, penalties include (d) being barred from conducting sponsored research, (e) recommending a reduction in rank, (f) suspension for a fixed period of time, or (g) termination. Termination shall be in accord with procedures specified in the Faculty Handbook.

If there is a finding of misconduct, the Provost must also take the following actions: (a) All pending abstracts and publications emanating from the fraudulent research should be withdrawn and editors of journals in which previous abstracts and papers appeared should be notified of the findings of the investigation; (b) Institutions and sponsoring agencies with which the investigated individual has been affiliated should be notified that there is reason to believe that the validity of previous research might be questionable.

3.7. Research Compliance

Faculty must comply with relevant statutes or regulations for the protection and welfare of researchers, human subjects, the public, laboratory animals and the environment.

Research involving the use of Biohazardous Material, Human and/or Animal Subjects must be submitted to the appropriate Committee(s) for review and approval. Funding will not be granted for research which has not been approved.

3.7.1. Human Subjects

Medical research is subject to ethical standards that promote respect for all human beings and protect their health and rights (World Medical Association Declaration of Helsinki 2000).

Approval for research involving Human Subjects can not be initiated prior to application and submission of related documentation and consent forms to the designated Ethics Committee at the facility where the research will be conducted.

Approval is granted for a specified duration and must be renewed to ensure continuation of research. It is the responsibility of the Principal Investigator to submit a progress report in accordance to the Committee guidelines for review and approval. In some instances, projects that have not obtained approval before the expiration date are terminated.

Any modifications to a research protocol, consent forms, or administrative matters in addition to reporting of adverse events must be submitted for approval by the Principal Investigator to the respective Committee(s).

3.7.2. Animal Subjects

Research involving the use of animals is subject to compliance of ethical practices and standards which ensure their proper care, use and humane treatment. Approvals must be obtained from the External Review Board (ERB) available at each collaborating facility where the proposed research will take place. The ERB is responsible for reviewing and approving all research activities involving the use of animal subjects before a project is initiated. Research which does not receive approval from the ERB will not be funded.

Laboratories are maintained by the facility administration that regulates and ensures compliances to its rules and regulations. A link to the policies for each collaborative facility is available in the University's website.

3.7.3. Environmental Health and Safety

It is the duty of faculty members conducting research to take necessary measures to promote and secure safe and healthy working practices and environments. Use of rDNA, biohazardous materials, or other agents must be detailed in the research protocol. Review and approval must be obtained from respective committees in facilities where the proposed work will take place. Proposals that have not received prior approval will not be recommended for funding.

3.8. Conflict of Interest

Conflicts of interest may arise when a faculty member's personal interests interfere with their responsibility to the university. The key factors in avoiding ethical and legal conflict of interest are personal responsibility and integrity. Alfaisal University expects all faculty members to conduct their outside professional activities in a manner that reflects well on themselves, their profession, and the University. The principal means for managing potential conflicts of interest involves prior disclosure and a dialog between a faculty member and their dean. Special guidelines apply to faculty members

who are involved in purchasing supplies, services, and equipment for the University. Faculty members with the authority to commit university funds must disclose whether any potential conflict of interest exists when they request signature authority for the commitment of funds. Only in special cases may University equipment or facilities be used for services to an outside organization, including those controlled by faculty members, and then only with the explicit written approval of the Department Head and Dean or applicable Vice President.

4. Funding Research

4.1. Policy Statement

The Office of Research & Graduate Studies (ORG) is responsible for the coordination, supervision, and securing of funds for research in the University and with collaborative partners in the local and global environment with the purpose of supporting the University's strategic plan.

Alfaisal University provides support services for research in the form of laboratory space, funding, compensation, computing facilities, and reduced teaching load.

The University seeks to maintain and upgrade research space and to institute new facilities for on-campus research so as to provide a vibrant academic environment conducive to research.

4.2. Solicitation

A faculty member may informally approach a funding agency about whether a specific project might be fundable without going through the Office of Research & Graduate Studies. However, no official solicitation pertaining to financial and space commitments for external support for research may be made in the name of the University without prior approval from the Office of Research & Graduate Studies.

4.3. Types of Funding

There are several ways to fund research projects either through the University's internal budget or through externally funded programs or projects such as Research Grants, Chairs and Centers. This section gives a description of each.

4.3.1. Internal Funding

Research is funded internally for start up and, when funds become available, for longer term research projects. Funding is based on areas of focus stipulated by the University in addition to criteria set forth by each College (see Appendix 1).

Start-up Funding is dedicated to new faculty to help initiate their research capability and is a one time event. Alfaisal University aims to facilitate and foster research and has created a set of guidelines to achieve this goal with respect to start-up packages. Negotiations between prospective faculty members and their respective department head or college dean must be documented and shared with senior administration before faculty assume their Alfaisal positions and before they are made an employment offer. This will assure that processes for

expending the funds and for accounting for those expenses are transparent and relatively hassle-free for faculty and staff. Requests for start-up funds for new faculty must be part of the negotiations and should be incorporated in the job offer and employment contract. For more details please see section 4.4.1 Start-up Funding Requests for New Faculty.

It is an Alfaisal University requirement that start-up funding results in research proposals submitted to outside research funding agencies and, ultimately, successful external funding of the faculty members research activities. Start-up funding may come from a number of internal budget centers including the Office of Research & Graduate Studies, the Provost's Office, the prospective faculty member's College or the prospective faculty member's academic department.

When funds become available, faculty members may apply for regular longer term support by filling out an Internal Research Proposal Application (Appendix 2, Form IRPA08). This is competitive in nature and must fall under one of the University's priority research areas.

4.3.2. Sponsored Research

The primary source of funded research comes from grants received from a sponsoring agency through submission and acceptance of research proposals. Several types of research grants are available, all of which are distributed on the basis of the merits of the submitted proposals (Table 1). All proposals for funded research must be routed through the Office of Research & Graduate Studies (ORG) to assure compliance with University and funding agency regulations, and to assess University commitments of funds and space.

KACST funding, for example, is available in two categories: KACST internal and KACST external funding. KACST Internal Grants are institution based. With this type of funding the Project Manager must be from KACST while the Principal Investigator may be from an outside institution. Most of the research is normally conducted at their facilities. This funding source is available for Alfaisal Faculty if they are collaborating with staff at KACST. Alfaisal encourages its faculty to participate.

The second category, KACST External Grants, is highly competitive and is open to all universities in the Kingdom. This comes in two forms; *Annual Research Grants Program* which is open to all disciplines and has a deadline of 31 December each year (Table 1) and the more recent *Science & Technology Research Grants Program* with its 11 Strategic Research Priority Areas (for details see Appendix 1)

- Water
- Oil & Gas
- Petrochemicals
- Nanotechnology
- Biotechnology
- Information Technology
- Electronics, Communication, & Photonics
- Space and Aeronautics
- Energy
- Environment,
- Advanced Materials

Table 1. External Funding Sources for Alfaisal Faculty

Deadlines	Funding Agency	Grant Type	Research Areas	Notes
31 Dec	King Abdulaziz for Science and Technology (KACST) www.kacst.edu.sa	Annual Research Grants Program (ARP)	Open to all disciplines	ARP Application form available in ORG
30 March 30 Sept	King Abdulaziz for Science and Technology (KACST) www.kacst.edu.sa	Science, Technology and Innovation	Strategic areas in Science & Technology	On line submission process starting 2010 CNPSTI – Form RE-D1 (on file in ORG)
None	King Abdulaziz for Science and Technology (KACST) www.kacst.edu.sa	KACST Internal	Strategic research areas of KACST institutes/centers	The Project Manager should be from KACST. Contact inst/cntr directors. Pre-proposal Form 11 (on file in ORG)
15 Feb	Center of Excellence for Research in Engineering Materials (CEREM) http://www.ksu.edu.sa/sites/Colleges/Engineering/cerem/Pages/aboutcerem.aspx	KSU Internal	Metals & alloys, polymer composites & smart composites	Alfaisal signed MOU with CEREM. Proposal Form (on file in ORG)
None	Prince Salman Center for Disability Research (PSCDR) www.pscdr.org.sa	External	Disability research	Research Grant Application Kit (on file in ORG)
None	Center of Research Excellence in Refining and Petrochemicals http://core-prp.kfupm.edu.sa/petrochemicals.htm	External	Refining and petrochemicals areas	Research Grant Application (on file in ORG)
25 Feb.	Center of Excellence in Corrosion www.kfupm.edu.sa/ir/core-c	External	Corrosion areas	Pre-proposal Form (on file in ORG)
25 April	Arab Science and Technology Foundation www.astf.net	Abdulatif Jameel	Medical, engineering, applied sciences and other sciences	Letter of Intent and Proposal Form (on file in ORG). Citizen of Arab country should be PI
-	Qatar National Research Fund www.qnrf.org	-	-	Need Qatar collaborator
-	Kuwait Foundation for the Advancement of Science www.kfas.com	-	-	Need Kuwait collaborator
	Saudi Basic Industries (SABIC) http://www.sabic.com/corporate/en/ourcompany/researchandtechnology/			-
	ARAMCO http://www.saudiaramco.com/irj/portals/anonymous			-

4.4. Procedures for Internal Research Funding

4.4.1. Start-up Funding Requests for New Faculty

4.4.1.1. Policy Statement

Alfaisal University aims to facilitate and foster research and has created a set of guidelines to achieve this goal with respect to start-up packages. Negotiations between a prospective faculty member and his department head or college dean must be documented and shared with senior administration before faculty assume their Alfaisal positions and before they are made an employment offer. This will assure that processes for expending the funds and for accounting for those expenses are transparent and relatively hassle-free for faculty and staff. Requests for start-up funds for new faculty must be part of the negotiations and should be incorporated in the job offer and employment contract.

Start-up funding is a one time event that is designed to help new faculty to initiate their research programs. It is an Alfaisal University requirement that start-up funding results in research proposals submitted to outside research funding agencies and, ultimately, successful external funding of the faculty members research activities. Start-up funding may come from a number of internal budget centers including the Office of Research, the Provost's Office, the prospective faculty member's College or the prospective faculty member's academic department.

4.4.1.2. Overview of Process

As part of the application process, prospective faculty members must submit a description of their proposed research at Alfaisal University. This description should include a list of equipment necessary to initiate and carry out the research, as well as a budget for other research-related needs such as supplies and technical help (to be used over a maximum of three years). A special form (SUFRO8 in Appendix 2) is available for this purpose but is not required as long as the information requested on that form is provided. Evaluation of the scientific or scholarly quality of the research project, its feasibility and its relevance to the Kingdom's and Alfaisal's research priorities will be part of the interview and faculty recruitment process. The resume and research proposal will be reviewed by the faculty search committee, faculty in the prospective faculty member's department and the relevant department head. Submission of the research proposal and details of the budget should not be requested until it is clear that the candidate is a finalist. Department heads will forward their evaluation and recommendation to the relevant college deans who, in turn, will forward their evaluation and recommendation to the Vice President for Research & Graduate Studies and the Provost. In addition to the credentials of the candidates and the quality of their research proposal, criteria for the commitment of funds for start-up will include research priorities of the University and the Kingdom, potential for getting external research support and availability of university funding.

4.4.1.3. Detailed Chronology of Process

The purpose of this section is to facilitate and document the process for securing start-up funding packages for new faculty that are in alignment with the University's budget for start-up funds and expected funding outcomes.

1. Prospective faculty member applies for a position in one of the colleges at Alfaisal University.
2. Faculty applicants are short-listed by Search Committee based on the credentials described in their curriculum vitae.
3. Search Committee or department chair informs applicants that they have been short-listed and requests that the applicants submit a description of their proposed research. This description should include a list of equipment necessary to initiate and carry out this research, as well as a budget for other research-related needs such as supplies and technical help (to be used over a maximum of three years). (A special form (SUFR08) is available for this purpose but is not required as long as the information requested on that form is provided.)
4. Evaluation of the scientific or scholarly quality of the research project, its feasibility and its relevance to the Kingdom's and Alfaisal's research priorities will be part of the interview and faculty recruitment process. The resume and research proposal will be reviewed by the faculty search committee, faculty in the prospective faculty member's department and the relevant department head.
5. The Provost, Vice President for Finance, College Deans and Vice President for Research & Graduate Studies will meet before the annual recruitment cycle begins to plan allocation of Start-up Funding.
6. Some of the equipment and facilities requested by the faculty member may be supplied by the University or by an outside research agency (like KACST or KFSHRC). The cost of such items or facilities will be deducted from the amount of start-up funds awarded. This provision must be stated explicitly in the Employment Agreement.
7. Funding requests from faculty to whom a college intends to make an offer of employment will be reviewed by the Vice President for Research & Graduate Studies and the Provost.
8. The amounts and allowable uses to Start-up Funding must be included in the Employment Agreement.
9. Copies of the approved Employment Agreement must be provided to College and University Finance Officers and the Office of Research & Graduate Studies. These copies constitute official authority for Finance to set up an account from which the faculty member may make purchases and pay technicians, graduate students and postdoctoral associates as provided in the Employment Agreement and in accordance with the regulations of the Kingdom of Saudi Arabia and Alfaisal University.
10. A department and/or college finance officer should monitor expenditures to insure compliance with the Employment Agreement and applicable regulations.
11. Faculty members, in consultation with their departmental or college finance officer, will prepare an annual report outlining expenditures in broad categories (as defined by the ORG) and briefly outlining research progress. This report will be submitted to the Office of Research & Graduate Studies. The final annual report shall constitute the final report for the start-up research project and shall be more comprehensive, covering the entire period of the project.
12. Expenditure and progress reports will be monitored by the Office of Research and Graduate Studies

4.4.2. Internal Research Proposal Applications

Proposals for research are submitted to the Office of Research & Graduate Studies (ORG) for processing funding, monitoring and review. All research proposals must be made using application Form IRPA08. This funding source will be initiated when funds become available.

4.4.2.1. Pre-award Process

Research Proposals must be routed through the respective college and the Office of Research & Graduate Studies to ensure the following: Proposed project is recommended at a departmental/college level with respect to: effect on teaching load, total release time, availability of sufficient resources (equipment/facilities), identification of (human/animal subject use & biohazards) and compliance with ethical standards and best practices, and all costs are included. Proposals for conducting research at Alfaisal are made by filling out the **Internal Research Proposal Application** (Form IRPA08) which is comprised of three parts: Cover page, Outline of Proposed Research, and Budget. Short CVs for the researchers need to be attached.

Evaluation of research proposals is conducted by three peers in addition to review and approval by the University Research Council, once it is established. The technical evaluation is conducted by subject matter experts and is based on the following:

- Scholarly merit and viability of the proposed project
- Justification and purpose of the project
- Expertise and ability of the researcher(s) to carry out the research
- Availability of equipment
- Availability of funds

The Council is also responsible for ensuring that approved proposals are in compliance with local and international ethics and standards.

Once the proposal review process has been completed, the Office of Research & Graduate Studies (ORG) will communicate the Council's decision to the Principal Investigator (PI).

4.4.2.2. Post-award Process

Once a project has been approved, a research account will be opened by ORG outlining the terms and conditions of funding. An official letter will be forwarded to the PI with the award number, start and expiration date and funding amount.

All University-funded projects require submission of annual progress reports and a final report, including a financial report, to the University Research Council at the conclusion of the project.

Progress reports are submitted annually by the PI. Reporting must be conducted and submitted by the PI as per the timeline provided. These should reflect progress and obstacles in the research including a tabulated report on fund expenditure. The report is reviewed by the Office

of Research & Graduate Studies (ORG) to ensure progress and appropriate allocation of funds. Accordingly, the progress reports are submitted to the ORG for release of funds in accordance with the timeline notification.

4.4.2.3. Account Closure

Upon completion of the research, a final report is submitted by the PI. This report receives a final evaluation from the University Research Council, upon which the account is formally closed.

4.5. Procedures for Sponsored Research Proposal Applications

The Office of Research & Graduate Studies (ORG) will regularly announce the availability of sponsored grant and contract competitions from agencies such as the King Abdulaziz City for Science and Technology (KACST) and King Saud University (KSU) (see Table 1). All applications must be routed through ORG. The procedures for sponsored research applications are as follows:

- Office of Research and Graduate Studies (ORG) works with faculty to identify areas of research and opportunities for potential grants or funding.
- Faculty members develop proposals in accordance with funding agency requirements and on designated forms.
- All official correspondence between faculty and funding agencies must be made through the ORG.
- Final drafts of proposals, including all attachments and required forms, must be signed and then submitted to ORG at least seven working days prior to funding agency deadline to allow time for review and endorsement.
- ORG submits the signed proposal to the funding agency and keeps a copy of the final proposal in a central file.
- The Principal Investigator/Project Manager and the College Dean will be notified once a decision has been received from the funding agency.
- If an award is granted, the ORG will work with the Principal Investigator/ Project Manager on account activation and post-award account management (see also section 8 on Budgeting & Finance).

5. Research Centers and Chairs

The University aims to establish Research Centers and Chairs that are specific to priority research topics. Centers will be either externally or internally funded. Each Center will have its own budget, research priorities and advisory group. There are two main centers in the process of being developed – Water and Aerospace. Other centers will be established with support and coordination from the Office of Research and respective departments and colleges at the University. The Office of Research is responsible for circulating news about Centers and availability of Chairs.

5.1. Water Research Center (WRC)

The *Water Research Center (WRC)* will focus on conducting research aligned with national needs and interest with a focus on drinking (i.e. potable) and recycled water.

The main focal point of the research programs will be on water treatment and desalination, water recycling and conservation, and water transportation and allocation.

The primary aims of the WRC are to:

- Conduct high quality research on the priority issues pertained to the Kingdom of Saudi Arabia
- Engage students in the research process
- Undertake a targeted research program that seeks to provide the knowledge and innovative solutions required to meet national and water industry objectives for water needs and supply
- Involve a high proportion of the water industry end-users in the development, conduct and utilization of the research and other activity
- Facilitate knowledge transfer and the application of research outcomes in industry
- Work as focal point in collaboration and networking between different research centers

5.2. Technology Innovation Centers (TIC)

KACST was directed by a 1986 Royal Decree to propose a national policy for the development of science and technology, and in July 2002 the Council of Ministers approved the 20 year National Plan for Science and Technology. KACST is responsible for programs that promote education and training, R&D, technology transfer, indigenization and development of technology, spread of technology, and optimizing its use and social benefits. The goal of the KACST Technology Innovation Center (TIC) program is to create a series of university-based industry collaborative research centers in carefully selected locations in the Kingdom. The TIC program will be supported and coordinated by KACST to meet four broad objectives:

- Address economic and social goals of the Kingdom;
- Promote university-industry research collaboration and technology transfer in the Kingdom;
- Strengthen university research and science and engineering education in KSA;
- Implement best practices and appropriate features of the structure, incentives, and requirements of successful programs in countries similar to KSA

The proposed centers must be broadly aligned with the 11 strategic technologies under the purview of KACST and : will have the following broad features:

- Centers will be based in universities with strong, integrated research and education capabilities.
- Center research must be guided by industrially relevant problems;
- Initial funding will be for five years, with the option for successful centers to compete for an additional five years of funding;
- Base funding by KACST will be SR 10M/Year;
- Additionally, industrial funds of up to SR 5M/Year to engage in project-based research programs will be matched 1:1 by KACST;
- Centers must demonstrate institutional commitment in the form of infrastructure support, in addition to faculty and center administration relief time from teaching and/or administrative commitments;
- KACST TICs will be coordinated, funded, managed and partially staffed by KACST.

5.3. Research Chairs

Faculty members salaries and research support may be funded all or in part by endowments and/or donations from external bodies such as companies or from private individuals. Normally the faculty member is given the name of the company /individual and the specific funded research area as part of their official title. The company or individual providing the financial support will specify the research priority area to be funded. The College in collaboration with the Office of Research & Graduate Studies will announce the Research Chairs. New faculty may be hired or existing faculty may be nominated for these Chairs.

6. Facilities and Laboratories

Alfaisal is a newly established university and as such has limited laboratories and facilities. While a dedicated research laboratories building has been proposed, during the start-up phase, the University will utilize facilities at affiliate institutions and organizations. These facilities are designated for use by both the University and respective party's faculty. Each facility has its own policies and criteria. The Office of Research and Graduate Studies and College Deans are responsible for facilitating requests by Alfaisal faculty for the use of facilities and laboratories at collaborating institutions, and for making periodic announcements pertaining to availability.

6.1. Proposed Research Laboratories & Technology Incubator Center Building

The Office of Research & Graduate Studies has submitted a proposal for an 18,000 m² Research Laboratories & Technology Incubator Center Building at Alfaisal University which will assist the institution to expand and launch major new research endeavors significant to the Saudi economy. The proposed Center Building will encourage the establishment and enhancement of University research capacity, enabling it to make major scientific and technological contributions, and to have a major impact on the scientific, engineering and industrial communities. The planned Building may also house Centers of Excellence in areas such as water, aerospace, and energy.

The objectives of the Laboratories & Incubator Center are to support the Research Priority areas identified by Alfaisal University, so that the country can meet its strategic objectives; to provide dedicated laboratory space for faculty with externally funded projects to aid them in achieving their research goals, so that they can more effectively address the countries research priority areas; to sustain graduate students to allow them to more efficiently work on their thesis research by providing them with good physical facilities and a critical mass of researchers; to provide support facilities to complement the research laboratories; and to make available an environment for the development of business & technology incubators at Alfaisal University

It is anticipated to have dedicated laboratories for the research priority areas identified by the University (e.g. Medical Sciences, Energy, Water, Information Technology, Oil & Petrochemicals, Aerospace, Environment & Natural Resources, and Diversification of the Economic Base). In addition, there will be a general instrumentation support laboratory; a two story pilot laboratory, a small animal facility in the basement, a small

conference/lecture hall, meeting rooms which can also be used for teaching/seminars. Laboratories will be made available, on a competitive basis, to faculty who have funded research projects, and for users outside the University on a fee-basis. The amount of space made available will be based in part on the number of sponsored projects and the amount of funding brought into the University. The Research Laboratories will be an integrated male/female building similar to that at the King Faisal Specialist Hospital & Research Centre.

6.2. King Abdulaziz City for Science and Technology

King Abdulaziz City for Science & Technology (KACST) is an independent scientific organization of the Saudi Arabian Government. It is a major affiliate of Alfaisal University. KACST promotes science & technology in the Kingdom by coordinating and cooperating with various universities, agencies and institutions concerned with research and technology, and encouraging Saudi experts to undertake research that will help to promote the development and evolution of the society. KACST has established national research institutes, including the Institute for Petroleum and Petrochemicals Research, the Institute of Energy Research, the Institute of Natural Resources and Environmental Research, the Institute of Arid Lands Research, the Institute of Astronomy and the Institute of Atomic Energy Research. KACST has advanced labs and research facilities that meet the highest requirements for facilities and equipment in engineering and science. It employs about 1000 researchers in different disciplines, mainly science and technology, who contribute significantly to research.

Alfaisal University signed an MOU with KACST in the summer of 2006 to conduct research of mutual interest. Alfaisal aims to develop cooperative mechanisms for scientific research and technological development, and in particular to provide shared access to human and material resources such as information systems, databases, facilities, equipment and libraries of the University and KACST for students of both institutions.

6.3. King Faisal Specialist Hospital & Research Center

King Faisal Specialist Hospital and Research Centre is a 800-bed multi-facility, multi-entity tertiary care hospital and one of the leading healthcare institutions in the Kingdom of Saudi Arabia. Its mission is to provide medical services of a highly specialized nature and promote medical research and education programs, including postgraduate education/training, as well as to contribute to the prevention of disease.

The Institution has highly sophisticated clinical and research facilities with advanced technology. It has a large number of researchers who contribute significantly to research. There are about 170 researchers in more than nine different major research fields. These research fields include Molecular Pathology (conducted at the Aragene lab and accredited by the College of American Pathologists), biomedical physics, clinical research, genetics, and comparative medicine.

Alfaisal University signed an MOU with KFSHRC on 6 November 2006 that has the following aims:

- Establish a joint team to develop research programs.
- Exercise best efforts to conduct joint research and development.
- Secure collaborative research and development with other organizations in Saudi Arabia and other countries.

It is our plan to have the faculty and students in the planned College of Medicine at the University to be closely associated with this first-class hospital and its highly qualified staff. OOR anticipates that relations between the two programs will be strong and that some of the students may do their medical training at this facility.

6.4. Security Forces Hospital

Security Forces Hospital is one of the leading Health Care Providers in the Kingdom of Saudi Arabia. It provides high quality and safe primary, secondary and applicable tertiary health care services through effective leadership, effective utilization of resources, strong teamwork and continuous education supported by advanced health and information technology.

Alfaisal University signed an MOU with SFH on 22 April 2007; it has the following aims:

- Establish a joint team to develop a research program.
- Conduct joint research and development.
- Secure collaborative research and development with other organizations in Saudi Arabia and other countries.

6.5. Saline Water Conversion Corporation

SWCC is a Saudi government corporation responsible for sea water desalination to provide a supply of potable water to cities in the Kingdom. In addition, it is the second largest electric power producer in the Kingdom. SWCC started by constructing single purpose plants to produce potable water later dual purpose plants that produce water and power were added.

SWCC has tremendous achievements in sea water desalination. It supplies a high percentage of Saudi nationals and expatriates with drinking water in the main cities through 27 plants, producing 2 million cubic meters of water and about 4000 MW of electricity daily. The main technologies used to produce desalinated water in SWCC plants are the Multistage Flash (MSF) and Reverse Osmosis (RO) processes. Facilities are also available at the Aljubail Plant in the Eastern Province.

Alfaisal University signed an MOU with SWCC to address common research interests and goals. Collaboration with SWCC Research Center is one of the aims as well.

6.6. Center of Excellence for Research in Engineering Materials

The Center of Excellence for Research in Engineering Materials (CEREM) is located at King Saud University (KSU), a government institution that was established under the rules and regulations of the Kingdom of Saudi Arabia. The Center was established for innovative research in the area of "Engineering Materials" in order to develop engineering solutions to important problems through characterizing the pertinent properties of advanced materials. In this regard, *CEREM* coordinates, administers, and supports materials processing and characterization facilities to develop research capabilities. The Center also organizes professional activities in addition to offering technical assistance, research facilities and expertise to the local industry. In order to promote and encourage innovative research, *CEREM* offers a comprehensive grants program for applied research in engineering materials. An MOU was signed between CEREM (KSU) and Alfaisal University in 2009 with the aims to facilitate the

development of collaborative research projects, allow for utilization of research related equipment in each other's facilities, collaborate in student-related research, and assist in developing and running of workshops. A collaborative project has been proposed in the area of surface modification of titanium & titanium alloys for enhanced bone growth & tissue adhesion in orthopedic & dental applications.

6.7. Other Facilities

There are other institutes available in Riyadh at King Saud University (KSU) as well as at Saudi Arabian Basic Industries Company (SABIC).

King Saud University is the largest and the oldest institution in the Kingdom, founded in 1957 and centered in Riyadh. Its annual budget is about SR 3 billion (i.e. 1 billion USD). The University has colleges in Arts, Sciences, Business Administration, Pharmacy, Engineering, Foods and Agriculture, Education, Medicine, Dentistry, Applied Medical Sciences, Computer Sciences, Architecture and Planning, Languages, Applied Studies and Community Service, and Nursing. It also has Community Colleges in Riyadh, Alqrayat, Alafraj, Almajma'ah, and a College of Science in Aljouf.

The University is renowned for its scientific research, and it spends about SR 500 million annually on research projects. The University has scientific research centers in each college, each of which has annual budget appropriation, scientific labs and research facilities.

King Abdullah Institute for Research at KSU is responsible for collaboration and organization of sponsored research between KSU faculty and external sectors and companies.

The University sets plans and develops strategies, consistent with the higher education policies that respond to the ambitions and aspirations of Saudi youth, and consistent with the Kingdom's general plans. Some of the University's strategies are:

- Giving scientific research and studies special priority by lowering barriers and by supporting activities that will distinguish the University in research.
- Working and coordinating with other public and private institutions to provide scientific experience, research projects, and counsel.
- Stimulating the private sector to finance the University's different activities.

Saudi Basic Industries Company (SABIC) is a non-oil company in the Middle East, specializing in the manufacturing of petrochemicals. The business is based in Riyadh. The Saudi Arabian government owns 70% of its shares, and the remaining 30% is held by private investors. SABIC is composed of six strategic business units, organized by product; Basic Chemicals, Intermediates, Polymers, Specialized Products, Fertilizers, and Metals. Each of these units is headed by a Vice-president.

SABIC invests heavily in research and technology (R&T). The main R&T facilities are in Riyadh and Al-Jubail, with satellite facilities in the USA (Sugarland, Texas), the Netherlands (Geleen) and India (Vadodara). SABIC works with universities, national research centers and other partners from the public and private sectors to help develop research capacities, in order to remain at the forefront of technology.

7. Student Participation in Research

7.1. Capacity Building

One of Alfaisal's priorities is competence building by, for example, helping to develop a student's intellectual abilities. Student involvement in focused research that addresses real community problems links academic programs to the actual work place through partnerships with the public/private sectors. This will help to equip students with critical thinking and problem solving skills and thus allow them to better meet the needs of the workplace and the community.

7.2. Protection of Students

It is the responsibility of the Primary Investigator (PI) to ensure that students who participate in research are made aware of the ethical policies and procedures and that compliance must be maintained. An account of student involvement must be detailed in the research protocol to ensure that all safety measures and necessary precautions have been taken. Endorsement forms for participation of students in research must be signed by the PI and student(s) involved.

7.3. Recognition

Principal Investigators must acknowledge the contribution of students to their scholarship and research in all forms including Intellectual Works, Property, and Patents (as per section on Intellectual Property)

7.4 Graduate Research

Graduate research is supported by the University in the form of full or partial tuition for Research Assistants during the course of their assistantships and in accordance with the stipulated tuition fee. In addition, Research Assistants receive an annual living stipend and medical coverage.

8. University Outreach

University Outreach is the administrative vehicle for extending an institution's instructional and research resources through service to society. Requests for consultancies, courses, training and other related programs shall be directed to the appropriate college where they may conduct or provide such programs or services. A proposal for an outreach service or program shall be presented to the Provost, who after consultation with the Office of Research and Graduate Studies, shall submit the proposal to the Council of Deans for final approval.

Revenues generated from fee-based outreach services will be fairly distributed to benefit participating staff, faculty and administrative support services. In addition, the Colleges/Departments will also need to be reimbursed for any loss of faculty time due to teaching of training courses during regular working hours. A 25% overhead will also be charged.

9. Budgeting and Finance

9.1 Financial Management of Externally Funded Research Projects

This section summarizes some of the key steps as well as responsibilities in the financial management of the post award process for externally funded (i.e. sponsored) research projects at Alfaisal University. These steps consist of:

- A separate account is available for sponsored programs in order to improve the efficiency of the process. Note that this account is different from the University's General Account. Only research related items may be charged against the sponsored programs account.
- Upon request of the Office of Research & Graduate Studies (ORG) the University (i.e. CFO) will open up a bank account to deposit all restricted funds that the university faculty, units, colleges or clubs may receive as a result of an award for a research project. Restricted funds may also include funds from short courses associated with training & service activates provided to external organizations.
- The Office of Research & Graduate Studies (ORG) will keep track of budget expenditures to ensure that only approved items are charged against the account and that the total expenses do not exceed the actual available funds in the account.
- Checks from external agencies for awarded projects should be in the name of "Alfaisal University" and will be forwarded by ORG to the Office of Finance along with a covering explanatory letter. The funds will be deposited by the Finance Office in a separate bank account for "sponsored research projects".
- When researchers/faculty members want to charge items (e.g. salary, equipment, materials/supplies, conference attendance) they must fill in the appropriate expense authorization form and submit this to ORG. The ORG will check the filled in form to confirm that the requested expenditure is allowed by the project budget and then will forward the request to the Finance Office.
- ORG will keep track of the expenditures for each externally funded research project and will coordinate closely with the Finance Office. While each research project will have a separate number, all sponsored program funds will go into one account.

9.2 Budgeting and Reporting Projects

All projects must include a budget which is planned and prepared by the Principal Investigator/Project Manager. The budget accompanies the research proposal. In the post award process a detailed account of budget expenditure is presented as part of the project interim report.

9.3 Procurement

For minor capital equipment, which forms part of the approved project budget, and consumable and expendable items, payment may be made in one of the following ways:

- *Finance Department:* In routine practice, the PI submits a purchase request, along with a quotation, to be processed by the Finance Department within 7 days.
- *Cost-Reimbursement:* For minor equipment and consumables costing less than 10,000SR (i.e. 2700 USD) the PI may pay for the item directly out of pocket and then request reimbursement from the University within 30 days.

To facilitate research, in exceptional cases, cash-advance payment may be obtained. In such cases, the PI should fill the cash-advance request form and submit this to the Office of Research for approval, then to Finance Department for payment processing and release.

Salaries are transacted to staff accounts based on a detailed monthly timesheet prepared and submitted to the Office of Research by the PI.

For travel to conferences, the PI submits a request to Finance through ORG, the University buys the ticket and provides a travel advance. Then, after return the PI fills in a travel expense report and attaches all relevant expense receipts. An alternative is for the faculty member to request a travel advance at least 7 working days before the trip, and then to fill in a travel expense report on return.

All project expenses must be in accordance with the approved award budget.

9.4 Authorization and Release of Payment

Once a proposal has been approved, it becomes an award. An award account is opened and authorization for activation of the account is made jointly by the Office of Research & Graduate Studies and Finance Department. The PI is responsible for providing monthly timesheets, salary administration, and expenditure reports for all project related expenses in accordance with the approved award budget.

The Office of Research & Graduate Studies conducts a preliminary review to ensure that project expenses are aligned with the approved budget. The Finance Department reviews all receipts for reasonableness and accuracy, and once receipts are approved the process for payment begins. Payments are issued directly to third party vendors by the Finance Department.

9.5 Direct Costs

Direct costs will be charged including salaries and wages for faculty, staff and Research Assistants, capital equipment, materials and supplies, and travel.

9.6 Facility and Administrative Costs

Indirect costs (i.e. overheads) include outlays that can not be allocated to the project budget such as: operation and maintenance of facilities, use of equipment and buildings, library and student services or any other services or property belonging to the University.

Rates for such overhead costs are normally 25% and are stipulated by the University. They are determined using a specific formula/mechanism and included in award and payment terms and conditions. Such costs may be incurred for externally sponsored projects unless specifically waived by the Office of Research & Graduate Studies.

9.7 Contracting

Alfaisal recognizes that researchers may require assistance in fulfilling all the requirements of their research objectives. Therefore, part of the research (e.g. human resource requirements) may need to be outsourced using contracts. Allocation of contractual costs must be included in the proposed budget for all manpower requirements prior to grant approval.

9.8 Capital Asset Purchase and Control

The University has budgeted funds for start up and internally funded research. This includes purchasing essential equipment for research labs. For newly appointed faculty, start up funding requests should come directly from the college and should include brief justification of each intended expense (such as equipment, supplies, and people).

Requests for major capital equipment, such as an electron microscope that is shared by two or more faculty and/or different colleges, will be evaluated separately and funded from a different pool of money. Funding for both project grants and equipment grants comes through ORG after proposal evaluation. All capital assets remain the property of the University. Accordingly the Office of Finance and Administration conduct inventory and monitor all University property. The Principle Investigator is responsible for maintaining the equipment and reporting any defects to Finance and Administration for necessary maintenance.

10. Intellectual Property

The Intellectual Property policy of Alfaisal University encourages creators to innovate by guaranteeing them a share in the benefits resulting from the Intellectual property that they develop. At the same time, it also promotes research and education activities at Alfaisal by allowing the University to retain a share of the benefits flowing from all Intellectual Property developed under its auspices.

The primary categories of Intellectual Property are patent, copyright, trademark and integrated circuit mask work protection, though from time to time other types of protection and other bodies of law may also fall under the broad heading of Intellectual Property. Intellectual Property rights govern ownership, licensing, distribution, and commercialization of Intellectual Property.

This section provides guidance for Intellectual Property related to research. The University Intellectual Property Policies are under development, the Faculty Handbook should serve as the main guide until the Intellectual Property Policy is approved.

10.1 Ownership of Intellectual Property

10.1.1 Creator-Owned Intellectual Property

Creators retain full ownership rights to Intellectual Property provided that the following two conditions are met: The Intellectual Property is not subject to a sponsored research or other agreement requiring ownership to reside in some other party including Alfaisal University; and Intellectual Property was not conceived, created, developed, or first reduced to practice with significant use of Alfaisal University support; and as a direct result of the creator's duties at the University.

Creators may choose to use creator-owned Intellectual Property in their research work at Alfaisal University. A creator who chooses to do so, however, must grant Alfaisal a free, permanent, irrevocable license for use of that Intellectual Property for the University's educational and research activities.

10.1.2 University-Owned Intellectual Property

Alfaisal University retains full ownership rights to: Intellectual Property subject to the terms of a sponsored research or other agreement that grants Alfaisal rights of ownership; or Intellectual Property whose conception, creation, development or first reduction to practice involved significant use of university support and directly resulted from the creator's University duties.

10.2 Ownership of Intellectual Property Financed by Outside Sponsors

Alfaisal will retain title to all Alfaisal-owned Intellectual Property (section 9.1.2 above) including, but not limited to, that which is conceived, created, developed or first reduced to practice in the course of Alfaisal research or other sponsored activities funded by third parties, including private persons, businesses, not-for-profit entities, and governmental agencies unless there is a written agreement between Alfaisal and the creator to the contrary. In cases where the sponsoring agency provides 100% of the financial support and where there is an agreement in place, then the Intellectual Property ownership will belong with the sponsor, even though the names of all inventors are on the patent.

10.3 Intellectual Property and Conflicts of Interest

Alfaisal University personnel engaged in consulting work with third parties are responsible for ensuring that their consulting agreements do not conflict with these Intellectual Property policies.

10.4 Ownership, Control, and Transfer of Tangible Research Property

Alfaisal shall own any and all tangible research property that a creator conceives, creates, makes, develops, or first reduces to practice, in whole or in part, during or pursuant to his or her employment, participation in Alfaisal programs, or significant use of Alfaisal support. Any transfer of such materials to outside parties, or any transfer from outside parties to Alfaisal facilities must have the advance approval of the Office of Research.

10.5 Procedures for Intellectual Property Reporting, Evaluating, Protection and Commercialization

10.5.1 Disclosures

The creator should carefully evaluate Intellectual Property that he has created at Alfaisal in order to determine whether or not that Intellectual Property has commercial or other value. If it does, for the protection of the interests of the creator and Alfaisal, every creator is obligated to disclose all Intellectual Property that he has created at Alfaisal. All individuals—faculty, staff, and students—who participated in the creation of the Intellectual Property should be identified, and all such creators have the right to share in the creator portion of any revenues or rights that are returned by the university.

The Office of Research & Graduate Studies is the primary contact for the creator with regard to disclosure of Intellectual Property; it is responsible for protecting, marketing, negotiating and licensing Alfaisal Intellectual Property. The creator must submit a complete disclosure form to the Office within 60 days of the creation/invention and before notifying outside parties, including sponsors. The Office will then determine whether the technology is appropriate for commercialization and/or protection. The decision to protect, develop, market and/or commercialize any Intellectual Property is at Alfaisal's sole discretion.

10.5.2 Commercialization of Creator-Owned Intellectual Property

Creators may request that Alfaisal pursue the commercial development of Intellectual Property owned by the creator. The Office of Research will evaluate the commercial potential of any Intellectual Property and determine whether or not Alfaisal will accept it for licensing. If Alfaisal decides to pursue commercialization, the creator will be required to assign his ownership of the Intellectual Property to Alfaisal. The terms of such assignment will be negotiated between the University and the creator.

10.5.3 Transfer of Intellectual Property to Creators

If Alfaisal chooses to waive its rights in disclosed Intellectual Property, and to grant those rights to the creator, the creator may protect the Intellectual Property as he, she, or they may wish. If external funds supported the work leading to the Intellectual Property, this waiver is subject to any provisions in the sponsoring agreement.

10.5.4 Intellectual Property Revenue

10.5.4.1 Distribution of Income From Intellectual Property

The Office of Research & Graduate Studies will calculate and distribute the net adjusted income from each Intellectual Property license or licensing related transaction according to the formula:

Net Adjusted Income = gross revenue minus current & reasonable projected expenses that Alfaisal deems necessary to defend or to maintain the Intellectual Property.

Net Adjusted Income shall be distributed as follows:

- Creator 50%

- Creator's College 10%
- Creator's Department and/or Center 15%
- University 25%

Distribution of net adjusted income will occur on a semi-annual basis.

10.5.4.2 Distribution of Net Equity Income Received from Intellectual Property

Alfaisal may elect to accept equity in lieu of cash payments, licensing fees, royalties, or other consideration. The decision whether to accept equity and, if so, precisely when to liquidate such equity, is at the sole discretion of Alfaisal.

Appendix 1

RESEARCH PRIORITY AREAS ALFAISAL UNIVERSITY

Objectives

The main rationale of this document, *Research Priority Areas*, is to provide assistance to Faculty, Deans, Department Heads and Administrators in development of research proposals that are relevant to the strategic goals of the country as well as Alfaisal University.

Procedure Employed in Developing Research Priority Areas

A dynamic set of research priorities was developed based on KACST's *National Policy for Science and Technology*, *KSA's 8th National Development Plan*, and *Vision 2020*. In addition, input was also received from members of the University's *Advisory Research Committee* as well as College Dean's and Faculty members who are experts in their fields.

KACST's National Policy for Science and Technology

The policy was approved in 2002. Accordingly, KACST developed five year strategic and implementation plans for eleven strategic technologies identified in the National Plan:

- Water
- Oil & Gas
- Petrochemicals
- Nanotechnology
- Biotechnology
- Information Technology
- Electronics, Communication, & Photonics
- Space and Aeronautics
- Energy
- Environment,
- Advanced Materials

KSA's 8th National Development Plan and Vision 2020

The Kingdom's National Development Plans are guided by the National 2020 Vision which outlines the National Development Strategies up to the year 2020 developed by the Ministry of Economy in collaboration with other Ministries and Public Authorities. The strategies were organized along distinct themes:

- Shift from excessive reliance on natural resource endowments to master over knowledge-based technologies for the next 15 years to achieve long-term economic security
- Build industrial competitiveness to international standards in a number of select sectors
- Manufacturing capability development e.g., deploy new technologies and raise innovation and enhance exports
- Build economically significant human resources via select set of National Industrial clusters at internationally competitive levels
- Enterprise Competitiveness
- Build supply of skills, finance, and technology support
- Set up effective national innovation system via R&D activity in universities and other research institutions and firms
- Strengthen KSA's educational system and shift emphasis to science and technology
- Develop technical and vocational training and employee training within firms

RESEARCH PRIORITY AREAS

ALFAISAL UNIVERSITY

1. SCIENCE & TECHNOLOGY

1.1. Water

1.1.1. Desalination

1.1.1.1. Thermal (MSF)

Modeling & simulation & process improvement, Optimization of hybrid desalting systems, Reduction of chemical consumption & assessing scale inhibitors, Cost reduction and minimum environmental impact, Improving desalination efficiency is critical since 70% of potable water in KSA comes from desalination plants. \$40 billion is expected to be spent on new plants. MSF consumes 200 kwh electricity/m³ water produced while RO consumes only 6 kwh/ m³ water. Need to better understand adverse affects of desalination plants on marine habitats.

1.1.1.2. Sea Water Reverse Osmosis (RO)

Optimization of pretreatment/techniques (MF, UF, & NF), evaluation of energy recovery devices, membrane cleaning, degradation & characterization of foulants.

1.1.1.3. Corrosion of Materials in Seawater

Evaluation of alloys & surface coatings & Galvanic protection, Causes and prevention of scaling and corrosion, Failure analysis , Improvement in membrane lifetimes means reduced costs and longer operating times. Materials selection, coating and galvanic protection are important for increasing lifetimes of desalination equipment and to strengthen corrosion resistant pipelines

1.1.2. Water Resources & Transportation

Sustainable development requires a reduction in dependence on non-renewable groundwater resources, leaving these as a strategic reserve. Major water loses (25%) from leaking pipes in cities need better monitoring system.

1.1.3. Water Recycling, Treatment & Conservation

Re-use & recycling Waste water, Nano-structured transition oxides used as catalysts or photo- catalysts to decompose organic compounds in waste water, Membrane Treatment, Microfiltration, Ultrafiltration, Nanofiltration

1.2. Energy

1.2.1. Renewable Energy

1.2.1.1. Solar thermal energy

Solar collectors, solar cooling water desalination, Solar radiation measurements.

1.2.1.2. Solar photovoltaic (PV)

PV Materials, transparent- conducting films, cell fabrication semiconductors, abundant free solar energy in KSA. Clean energy source. Materials limit performance, cost and efficiency of solar collectors; pilot studies on solar cooling and desalination. Need to improve PV cell efficiency & develop new materials (nanotechnology). Utilize solar photovoltaic effect to produce the electricity needed to operate RO desalination; modeling and simulation of the integrated system (PV-Desalination). Coupling other membrane desalination process with PV-solar systems such as electro-dialysis/ion-exchange.

1.2.2. Power Generation

1.2.2.1. Fossil fuel

High temperature (HT) corrosion and protection, H-T corrosion in water vapor containing atmospheres. H-T alloys, ceramic and TBC coatings, Nano-structured Ni-based alloy coatings, Combustion; automotive, efficiency modeling, emission reduction, injection/ignition.

1.2.3. Combustion

1.2.3.1. Internal Combustion Engine

Efficiency improvement, emission reduction, advanced engines, modeling & simulation, engine control, and fuel injection systems.

1.2.4. Fuel Cells

Membrane processes & nano structured membranes. Electrodes, ionic conductors, & catalysts, Ceramics & refractory materials.

1.2.5. Energy Storage, Conversion & Efficiency

Advanced batteries, hydrogen storage, phase transformation compounds, super capacitors, superconducting magnets.

1.2.6. Energy Efficiency

Building applications, industrial applications, AC & refrigeration, new insulation materials, heat exchangers, and electricity distribution & transmission.

1.3. Oil & Petrochemicals

1.3.1. Oil Processing & Catalysts

Nano-structured transition oxides that have strong catalysis and photo-catalysis properties, Nano-sized thin films have porous structures with large surface areas that can be used in petrochemical processes & waste treatment. That will support the maximization of value added and enhancement of oil industry integration, through increasing refining capacity and ensuring full utilization of natural gas resources in the development of the industrial base.

1.3.2. Petrochemicals

Downstream, polymer synthesis & processing, In order to find markets for its heavy oil reserves, the Kingdom intends to double oil refining capacity to 6 million b/d by 2013. It is expected to invest \$300 billion to be targeted at petrochemical ventures. Saudi Arabia will become one of the most economically advantageous global locations for developing new petrochemicals ventures. Saudi petrochemicals industry also depends in its development on the scientific and technical infrastructure that can feed this industry.

1.4. Information Technology

1.4.1. Software Engineering Systems

1.4.1.1. Arabisation (local content)

Translation & transliteration, Arabic OCR (type & handwritten, Arabic content on internet is still less than 1% of total web content. This is hampering spread of internet in Kingdom and Arab world and is major reason for digital divide. Need training, education and awareness in schools and universities.

1.4.1.2. Security

Crowd management, Biometric authorization, Cryptology & cryptography, in business sector concern over data security of financial transactions and weak technical ability of staff. Many small & medium sized enterprises are still dependent on manual operations rather than on electronic exchange of information.

1.4.1.3. Speech

Recognition, Synthesis, Text-to speech,

1.4.1.4. Self-adaptation

Self-adaptation has become one of most promising directions in software engineering. There is a need to establish systematic development of future generations of self-adaptive systems.

1.5. Aerospace

1.5.1. Advanced Aerospace Computing

1.5.1.1. Embedded Computing

On board computing in space, data compression and hardware implication such as low-power high-performance embedded systems. Reliable and adaptive real-time software systems.

1.5.1.2. Remote Sensing & GIS

Classification & Feature Extraction, Urban growth, disaster, environmental & water resources management. To utilize the consolidating base maps, DEMs and GCPs already available at KACST for national and regional use, Auto generation of ortho-rectified satellite images, Generation of specialized 3D visualization products, Land cover change detection applications, development and provision of the web-based GIS framework for the delivery of EO data, products and services, development of an end-to-end web-based GIS software system for the operational services to be provided by the Monitoring and/ or Hazard Warning Unit.

1.5.2. Materials

Light alloys, Mg based alloys: high T and creep resistant Mg alloys for air engines; Improve corrosion resistance of Mg alloys; High temp alloys & TBC coatings for extremely high T; Polymer composites & Ti-Al composite coatings High temp. Alloys. Reducing structure weight is a big challenge in aerospace industry.

1.5.3. Aerospace Systems and Applications

1.5.3.1. Advanced electro-optics systems

Development of an advanced multi- and hyper- spectral imaging capability, development of SAR imaging technologies, advanced optical detectors (solid state, single point, array, and matrix). Alfaisal may conduct advanced research in support of KACST satellite and aeronautics technology development programs. Reducing weight and volume of sensor systems. Amplify incoming signals to a photo detector. Optical computers, Lightweight Optics and Support Structures, use of composite materials for optical enclosures. Aerogels for vibration isolation and damping to improve sensor resolution and range. Combination of stiff, lightweight structure with effective isolation from airframe vibration will give much greater capability to video and optical/infra red sensors on platforms.

1.5.3.2. Aerospace Dynamics Determination and Control

The Kingdom's ambition to have its own indigenous satellites calls for local research centers to develop high performance satellite attitude determination and control systems (ADCS). Attitude control of flexible satellites, optimization of attitude maneuvers, sensor and actuator failure analysis, real-time hardware in loop simulation, and development of new sensors and actuators, Stabilization and pointing control of aircraft payloads, Airship system Orbit optimization, Interaction of orbit and attitude maneuvers , UAV flight simulator, Electric propulsion, Mission analyses for orbital maneuvers using electric propulsion; high energy orbits.

1.5.3.3. Aerospace communications

Secure high band width data transmission, Mobile communication systems for air vehicles. Mission analyses for orbital maneuvers using electric propulsion; high energy orbits, drag compensation for low orbits. Plasma physics and electro-optics analyses for field emission electric propulsion.

1.5.3.4. Nanomaterials & Device Applications

Nano-LED and nano-lasers. High resolution imaging for example needs great deal of expertise in electro-optics sensor-level design.

1.6. Mining & Metals

Mining and production process; new technologies and process required for characterization of alloys, KSA-specific development of alloys for lamination and high-temperature condition, diversification of mining activities, feasibility studies of investment opportunities in mining activities.

1.7. Environment & Natural Resources

1.7.1. Air Pollution

Environmental Reduction, Catalytic reduction of NO_x emissions; Nano transition oxides used for catalysis and photo catalysis. Major KSA cities experienced highest levels of nitrogen monoxide and dioxide pollution, with concentrations exceeding approved international standards; attributed to traffic & industrial activities. Alfaisal can provide research lead in technical solutions.

1.7.2. Environment and Marine Biology

1.7.2.1. Kinetics and conversion of biomass: Renewable and biomass energy are anticipated to have a dominant role after 2010. Linked to food security, land use and rural development, sustainable forest management, biodiversity conservation, and mitigation of climate change. Increased utilization of bio-energy can help to provide cleaner energy services while contributing to sustainable development & the alleviation of environmental concerns,

1.7.2.2. Reduction of bio-fouling in desalination & power plants: Due to proximity of desalination plants to marine environment; marine macrofouling has become a serious concern. Need to develop strategies for its prevention and control.

1.7.2.3. Interaction between desalination plants and coastal marine environment: The Kingdom ranks first in the world in utilization of sea water desalination technology. However, there is a concern with the different environmental issues which influence and are influenced by all aspects of desalination. Impacts start with the change of land-use, proceed to visual and acoustic disturbance, and extend to emissions to water and atmosphere.

2. HEALTH, BIOMEDICINE, & PHARMACEUTICALS

2.1. Diseases

2.1.1. Diabetes

Data reveals that 6 million Saudis are diabetic (i.e.1 in 4)

2.1.2. Asthma

Environmental causes, Need to identify causes of high incidence of Asthma in Saudi, especially in children. Will be supported by Saudi Chest Society, Alfaisal can collaborate with KFSHRC to develop new diagnostic kits for specific diseases.

2.1.3. Cancer and Viral Infections

Screening & prevention, vaccination, TB, High mortality rate in Saudi Arabia due to non-communicable diseases TB is re-emerging as a major drug resistant challenge. Hajj Related spread of infection diseases.

2.1.4. Cardiovascular

Alfaisal faculty can be part of the KACST & KFSH loop in the common fields of epidemiology, cell biology, genetics and cancer research. Alfaisal faculty can also apply independently to KACST in fields of interest like vaccination, infectious disease, neuropathology research, cardiovascular disease and in particular aging and Alzheimer's disease.

2.1.5. Obesity

2.1.6. Neuropathology

2.1.7. Communicable Diseases

Rota virus disease; high incidence of viral related cancer. Research will be supported by GSK, Emerging national need in area of preventive medicine. Will be supported by ARABIO

2.1.8. Epidemiology

Need to create an accurate national data base on health problems in KSA.

2.2. Surgery

2.2.1. Healing

Tendon sutures & healing Fetal wounds, Need to establish research laboratory, such as cytokines, that specializes in investigating compounds of interest to all medical and surgical specialties. Encourage graduate student research in these areas as well as publications.

2.2.2. Nerve-repair

End to side neurorrhaphy

2.2.3. Cytokines

2.3. Gerontology

In next decade a large proportion of Saudi population will exceed the age of 60 years old; age related diseases such as Alzheimer's and Parkinson's will increase frequently.

2.4. Genetics

Screening, treatment & marriage planning, KSA has high incidence of mutation leading to genetic abnormalities; will be supported by RC of KFSH.

2.5. Biotechnology & Biomaterials

2.5.1. Biopharmaceuticals

Biotechnology is being used to produce pharmaceuticals to treat various diseases such as genetic disorders and disorders of the Immune System in addition to Pulmonary and Tracheal Disorders, Cancer, and for the production of immunizations and forecasting the anti agents which cause imbalance in the body.

2.5.2. Disease Detection

Biopharmaceuticals are a contributing factor to carrying out hundreds of medical exams in addition to the diagnosis of diseases in a fast and meticulous way which has led to prevention from the harmful effects of disease such as AIDS.

2.5.3. Artificial Organs & Drug Delivery Systems

The Kingdom has an active health research and services sector. This creates great demands and needs for advanced materials in the health sector: medical implants and prosthetics require specialized materials, coatings and machining technologies; selective drug delivery including new bioactive molecules.

2.6. Comparative Effectiveness

Clinical trials of new drugs or medical devices typically focus on efficacy relative to a placebo, and not the effectiveness of new therapies compared with existing, alternative therapies. What's more, most health care spending is allocated to medical and surgical procedures, not pharmaceuticals. Effectiveness research needs to focus on the full range of new and existing medical therapies that have come on the KSA market over the past several decades.

2.7. Translational Research

Translational Research 'the underlying basis for Translational Medicine,' is the process which leads from evidence based medicine to sustainable solutions for public health problems. Translational Medicine is the emerging view of medical practice and interventional

epidemiology, as a natural 21st century progression from Evidence-Based Medicine. It integrates research inputs from the basic sciences and social sciences to optimize patient care.

3. BUSINESS

3.1. Diversification of Economic Base

Development of non-oil sector major aim of Saudi economy policy; Opportunities in investment-intensive industries such as natural gas, mining and pharmaceutical industries; and the service sector, particularly tourism, transport and supply chain management, Islamic finance and insurance. The capital-goods industry, such as mineral products, machinery, equipment and electrical appliances, are promising areas for development, Industries that could contribute to a knowledge-based economy; information technology and capital-goods industries; SMEs which play an important role in diversification of the economic base and provision of employment opportunities, Export-oriented manufacturing industries, particularly those that have achieved considerable success, such as foodstuffs, building materials and plastic products. Long-term strategy for promoting non-oil exports and medium-term export promotion programs, The tourism industry, which promises effective contribution to economic diversification, through increasing income sources, creating new job opportunities for the Saudi workforce, and improving the balance of services and remittances, The agriculture sector, with emphasis on promoting high value added crops that use advanced water rationalization technologies and optimum utilization of natural resources.

3.2. Domestic & Foreign Investment

3.2.1. Foreign Direct Investments

For continued development of investment climate, several challenges need to be addressed; establishment of regulatory structures in insurance; and shortage of specialized human resources. These issues and development of the Kingdom's new economic cities and zones invite foreign direct investment in education, energy, health, ICT, life sciences and transport sectors all of which are part of the National Plan and governmental strategies for FDI.

3.2.2. National Competitiveness

Competitiveness as it relates to government policies regarding such issues as guest worker programs, local ownership regulation, workforce training, social mores, cross-cultural issues, fee and tax structures, and so on all affect the Kingdom's ability to compete internationally.

3.3. Economic, Social, Environmental & Cultural Impact of Globalization

3.3.1. Capital Market Contemporary Issues

Globalization will increase competition between domestic and foreign products. Effective economic measures and policies are needed to improve competitiveness of domestic products. Major challenges include: diversifying the economic base, improving productivity and quality, accomplishing technological development, and turning comparative into competitive advantages. Of particular interest is the process of bringing promising new technologies to market through business incubation, the development of enhanced venture capital funds, and market linkages that tie entrepreneurs to global markets.

3.3.2. Micro & Macro Economic Issues

Acceleration of macroeconomic and sectoral growth is required to meet the challenges, development of an incentives system to attract private domestic and foreign investment, and strongly boosting development of non-oil exports. Need to minimize

adverse social and cultural effects of globalization, Expanding technical assistance to productive projects in research and technological development, Implementing effective Saudization programs, Reconsidering the social assistance system that helps improve living conditions of low-income and needy citizens, Developing human-resources, education and training programs that meet demands of the labor market, as well as on reduction of unemployment among nationals, Improving information and telecommunication technology infrastructure, Developing effective partnerships, Micro and Macro economic issues need to be addressed to broaden the capital market base such as: The limit of monetary policy options to stem robust liquidity growth, Inflationary pressures which are likely to continue increasing, The substantial demand for increasingly scarce resources, such as labor and raw materials straining supply chains and pushing up prices brought about by the surge and spread of Investment from the energy sector to real estate, transport, communications, trade, and financial services. Shortages of building materials, such as steel and concrete which has constrained the supply of housing, Sharp rise in salaries in specific sectors due to shortage of skilled personnel, Demands for higher salaries to offset the exchange rate loss due to the decline in the value of the Riyal against some, the sharp rise of global food prices. Prices of wheat have been forced up by the shift to biofuel production in some countries, restrictions placed by key producers on exports and unusual global weather patterns.

3.3.3 Environmental Issues

Increasingly environmental issues play a key role in the practice of business around the world. Within the Kingdom, such issues as water usage and climate change provide both opportunities and threats for business practice. As the Saudi Arabia strives to be competitive internationally, a strong domestic demand for products that mirror international demand will play a role in product and service success. Market research that captures local and international consumer sentiment, new product development, and promotional practice will be particularly valuable. The response of the Kingdom to the sustainable development agenda and triple bottom line issues will need to be analyzed.

3.4. Balanced Regional Development

The eighth objective of National Plan is to achieve balanced development throughout the regions and reduce development gaps among them by: Provision of infrastructure and key services; Building a production base that relies primarily on input and development potential of the individual regions themselves; Reduce disparities among regions through encouraging private investment in the least developed ones; Expansion of the national energy grid to provide fuel and feedstock to new development poles; Expansion of the railways network; Developing locations identified by long-term strategy for tourism; Addressing problems caused by rapid urban expansion and concentration in major cities; Delegation of administrative responsibilities to local administrations in regions.

3.5. E-Business & E Government

Widespread use of IT and expansion of use of Internet and area networks require upgrading government services; adopting e-Government could in itself provide a driving force for the digital economy. ICT infrastructure alone is not sufficient for growth of internet and development of a knowledge-based economy. Following issues need to be addressed to facilitate the use of ICT and increase involvement in digital economy: Equip users with knowledge and skills required to obtain/exchange information, and perform electronic transactions; including e-commerce, e-government and distance learning. Eliminate digital illiteracy through training, education and awareness; providing the basic infrastructure for connecting institutes and organizations including basic skills training for individual users; developing educational systems as well as overcoming concerns over data security of financial transactions and weak technical ability. Apply e-Government concepts and methods and assess their effectiveness. Widespread use of ICT and expansion of use of the Internet and area networks require upgrading government services to match. Provide government agencies

with financial and technical resources needed to deliver their services electronically, as well as to review government procedures and regulations to ensure consistency with the requirements of safe and efficient delivering of services electronically. Establish uniform specifications, policies and a unified framework for national e-Government infrastructure.

ORG/05/05/09

Appendix 2. Forms

• New Faculty Start-Up Funding Request (SUFR08)	36
• Pre-Proposal Application (PPA08)	37
• Internal Research Proposal Submission Guidelines & Application	38
• Award Notice (AN08)	45
• Reviewer Acceptance (RA08)	46
• Research Proposal Evaluation (RPE08)	47
• Advance Payment Request	51
• Expense Report	52
• Purchase Requisition	54

NEW FACULTY START-UP FUNDING REQUEST

Start-up funding is awarded to new faculty as part of the recruitment process and will be used to help initiate their research programs in accordance with research fields and priorities set forth by the University. It is a one-time award but may be spread out over a three year period. Start up funding request forms should be prepared by new faculty applicants in coordination with the College Dean and Vice President for Research & Graduate Studies. Requests must include a brief justification of each intended expense as stipulated below.

Applicant Information	
Name:	College:
Date of Submission:	
Title of Research:	
Status (check one): <input type="checkbox"/> New <input type="checkbox"/> Re-submission	Total Funding Requested <i>(US Dollars)</i> :
Does research involve: <input type="checkbox"/> Not Applicable <input type="checkbox"/> Human Subjects <input type="checkbox"/> Biohazards <input type="checkbox"/> Animals <input type="checkbox"/> Other Specify	
Summary of Proposed Research (suggested format: font Arial, size 10, single line spacing) (justification, objectives, methodology, significance to research priorities at Alfaisal, financial needs description & justification, required human resources, student involvement, expected outcomes: e.g., patent, publication, grant). Use one additional page, if needed.	
Endorsements	
Faculty Signature Name Title Date: (d/m/y)	Vice President for Research & Graduate Studies Signature Name Title Date: (d/m/y)
Dean of College Signature Name Title Date: (d/m/y)	Provost Signature Name Title Date: (d/m/y)

For research which will be conducted at external facilities:
 The total amount of start up funding will be modified to exclude costs rendered by the host institute.

PRE-PROPOSAL APPLICATION (PPA08)

In order to save time and before preparing a full proposal for an internal grant, a faculty member has the option of submitting a pre-proposal application. Initial requests for funding will be evaluated by committees in each subject area and according to University research priorities. Pre-proposal application forms should be prepared by new faculty and come directly from the college and should include brief justification of each intended expense (such as equipment, supplies, and people). Hence, if this is approved, then the investigator will be given the go ahead to prepare a full proposal for an internal grant.

Applicant Information	
Name:	College:
Date of Submission:	
Title of Research:	
Status (check one): <input type="checkbox"/> New <input type="checkbox"/> Re-submission	Amount Requested (SR)
Does research involve: <input type="checkbox"/> Not Applicable <input type="checkbox"/> Human Subjects <input type="checkbox"/> Biohazards <input type="checkbox"/> Animals <input type="checkbox"/> Other Specify	
Summary of Proposed Research (suggested format: font Arial, size 10, single line spacing) (justification, objectives, methodology, significance of expected results, financial needs description, required human resources)	
Endorsements	
Principal Investigator Signature Name Title Date: (d/m/y)	Vice President for Research & Graduate Studies Signature Name Title Date: (d/m/y)
Dean of College Signature Name Title Date: (d/m/y)	Provost Signature Name Title Date: (d/m/y)

INTERNAL RESEARCH PROPOSAL SUBMISSION GUIDELINES & APPLICATION

RESEARCH PROPOSAL SUBMISSION GUIDELINES & PROCESS OVERVIEW

1. **Introduction:** The following guidelines are to assist Faculty in preparing research proposals as well as providing an overview of the processes and procedures followed during application & award phases.

The University provides support for research in the areas of science, engineering, medicine, and business with the aim of promoting productive investigation and creative scholarship. The following are guidelines for the types of research conducted at Alfaisal: Topics of strategic importance to the region such as water treatment, aerospace, petrochemical industries, and energy; applied areas in clinical medicine, genetics, and biotechnology; projects in domestic and foreign investments, diversification of the economic base, and globalization. Detailed information is available at respective colleges and departments.

2. **Eligibility:** Alfaisal faculty of professorial ranking are eligible to submit research proposals for funding.
3. **Proposal Route:** Research Proposals must be routed to ensure the following: Proposed project is recommended at departmental/college level with respect to effect on teaching load, total release time, availability of sufficient resources (equipment/facilities), identification of (human/animal subject use & biohazards/rDNA) and compliance with ethical standards and best practices; Proposal is consistent with department/college objectives; and all costs are included
4. **Preparing a Proposal:** Proposals for conducting research must be submitted in hard as well as soft copy. The Internal Research Proposal Application (Form IRPA08)) is available through the University's public folders and OOR webpage and is comprised of three parts:
 - a. **Part I: COVER PAGE:** The cover page which includes the name and titles of PI and Co-PI the title of the research, date of submission, a summary and signatures.
 - b. **Part II: OUTLINE OF PROPOSED RESEARCH:** (10 page maximum, font Arial, size 12, line spacing 1.5) Suggested contents; justification, literature review, objectives, methodology, expected results, project timeline. If applicable, use of human or animal subjects and/or biohazardous materials must be accompanied by relevant forms
 - c. **Part III: BUDGET:** For each year indicate salaries, tuition, equipment, materials and supplies, travel, consultants, other related costs. Attach budget narrative for each year which justifies all costs.

A short CV should be attached for each investigator. A sample form is included or investigators can use their own.

5. **Proposal Submission:** Upon submission of the completed proposal (hard & soft copies) and required documentation, ORG will provide the PI with a Proposal Receipt. This should be used as a reference when enquiring about the status of proposals.
6. **Review Process:** Evaluation of research proposals is conducted by three subject matter experts. Final approval is obtained from the University Research Council. The technical review is based on the following: scholarly merit and viability of proposed project; justification and purpose of project; expertise and ability of researcher(s); availability of equipment and availability of funds.
7. **Award Notification:** Once the proposal has been reviewed, the Office of Research (OOR) will communicate the Council's decision to the PI.
8. **Post-award Process:** Once a project is approved a research account will be opened by ORG. An award acceptance form outlining the terms and conditions of funding will be forwarded to the PI. An official acceptance letter will be forwarded to the PI with the award number, start and expiration dates and funding amount. A payment terms notification and reporting timeline will be signed by the PI. Payments will be automatic in accordance to the payment terms notification and reporting timeline.
9. **Reporting:** Interim reports are submitted annually by the PI. Reporting must be conducted and submitted by the PI as per the timeline provided. These should reflect progress and obstacles in the research including a tabulated report on fund expenditure. The report is reviewed by evaluators to ensure progress and appropriate allocation of funds. Accordingly, the interim progress reports are submitted to ORG for release of funds in accordance with the timeline notification.
10. **Account Closure:** Upon completion of the research, the PI submits a final report. This is evaluated by the Advisory Research Committee which submits its report to the University Research Council, upon which the account is formally closed.

1. COVER PAGE

Principal Investigator:	College:
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Co - Investigator:	College:
--------------------	----------

Date of Submission:

Title of Research:

Years of Funding Requested:	Total Funds Requested (SR):
-----------------------------	-----------------------------

Status (check one): New Resubmission Other Specify:

Separate Approvals Attached: Not Applicable Human Subjects Biohazards Animals Other Specify

Summary of Proposed Research (font Arial, size 10, single line spacing) (justification, objectives, methodology, significance of expected results)

Endorsements:

<p>Principal Investigator</p> <p><i>I will in the event that an award results from this proposal comply with Alfaisal University policies and procedures and ethical practices, promptly disclose in writing all new technology or invention, and assume all responsibility to ensure that all proposed costs are met.</i></p> <p>Signature Name: Title: Date: (d/m/y)</p>	<p>Dean of College</p> <p>Signature Name: Title: Date: (d/m/y)</p>
<p>Co-Investigator (s)</p> <p><i>I hereby, undertake to shoulder the responsibility of the PI in case of his/her inability to continue in the project</i></p> <p>Signature Name: Title: Date: (d/m/y)</p>	<p>Vice President for Research & Grad. Studies</p> <p>Signature Name: Title: Date: (d/m/y)</p>

2. OUTLINE OF PROPOSED RESEARCH *(10 pages maximum, font Arial, size 12, line spacing 1.5)*

The following are suggested guidelines for areas that should be covered:

Justification: Briefly describe the need for doing this type of research. What research priority area will it address? How will the successful completion of the proposed study help society at large?

Literature review: Provide a brief critical review of refereed publications in the proposed area of research with an emphasis on shortcomings and needs. This part sets the stage for the objectives.

Objectives: What is the long term goal of this research? What are the specific goals of the proposed project (use point form)?

Methodology: Describe in detail how you propose to do the work. Use the specific goals as a guide for developing subheadings for this section.

Expected results: Briefly describe what results you expect and how this will help to address the problem outlined in the research priority area.

Project timeline: Using a bar chart, indicate how long (in months) each specific objective will take to be achieved.

3. PROPOSED BUDGET* (SR)	Year 1	Year 2		Total Amount
Salaries and Wages				
Sub Total Salaries and Wages				
Capital Equipment				
Sub Total Capital Equipment				
Materials and Supplies				
Sub Total Materials and Supplies				
Travel				
Sub Total Travel				
Other Direct Costs				
Sub Total Other Direct Costs				
Total Direct Costs				
Indirect Costs				
Sub Total Indirect Costs				
Total Project Budget				

**Attach a budget narrative for each year explaining/justifying specific costs*

4. INVESTIGATOR SHORT CV *(Three (3) pages maximum) (One CV for each investigator)*
As an alternative an investigator may attach their own version of a short CV.

Name

Family/surname:	First name:
-----------------	-------------

Address

Affiliation:	City:	Postal Code:	Country:
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Current academic title:

Telephone:	Date of Birth: (d/m/y)
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Mob.Phone:	Citizenship:
------------	--------------

Email:	Marital Status:
--------	-----------------

Degree

Highest Degree:	Date of Graduation:
-----------------	---------------------

University:	Country:
-------------	----------

Major field:	Specialization:
--------------	-----------------

Current Research Interests

Professional Experience *(including current appointment)*

School/Company/Organization	Title	Dates (d/m/y)

Publications (Journal papers, book chapters, books, conference papers, patents) (last three years only, 2 page maximum, font Arial, size 10, single line spacing)

AWARD NOTICE

Award number:
Principal Investigator:
Project Title:

Budget Period:
Project Period:

Dear Dr. _____,

The Office of Research & Graduate Studies is pleased to inform you that the University has awarded you research funding in the amount of _____(SR) in support of the aforementioned project.

This award is subject to the following conditions and terms:

- I. *Compliance*
The PI acknowledges that he/she has read, fully understood, and will comply with the policies set forth in the Alfaisal Faculty Handbook, and Research Policies and Procedures.
- II. *Interim Progress Report*
The PI is responsible for preparing interim progress reports which include a full detailed account and justification of budget expenditures to be accompanied by original receipts. Progress reports will be submitted to OOR annually commencing _____.
- III. *Payment Terms*
A technical review will be conducted and, if satisfactory, continuation of payment will be made in accordance with the following payment schedule:

Year 1	Year 2	Year 3

Acceptance of this award by the PI and co-PI ensures your understanding and agreement with the terms and conditions set herein.

If you require more information about this Award or have inquiries, please contact the Office of Research.

Sincerely,

Vice President for Research & Graduate Studies

(please sign below and return to the Office of Research & Graduate Studies)

Acceptance

Principal Investigator date

Co-Principal Investigator date

Research Proposal Evaluation

Form RPE08



Reviewer Information

Name			
First:	Middle:	Last:	
Address			
P.O. Box:	City:	Postal Code:	Country:
Telephone No.			
Home:	Office:	Fax:	Mobile:
Email Address:			
Work			
University / Institute:	College / Directorate:	Department:	

Endorsement

Reviewers Name:	
Reviewer's Signature:	
Date:	

Note

- Please complete the overall assessment and scoring on the following pages.
- For your convenience, you may fill out and submit this form electronically at : research@alfaisal.edu

For Official Use

Reviewer No.:

Proposal No.:

Guidelines for Evaluation

When completing this research proposal evaluation form, kindly consider the following:

- Importance and relevance to KSA and Alfaisal research priorities: Is this research meaningful and valuable?
- Originality and innovation: Will research add new knowledge or reinforce the existing knowledge bases?
- Rational & Background:
 - Literature review is adequate and comprehensive?
 - Justification of the research is supportive?
 - Objectives are clear and likely to be achieved?
- Experimental design and methods: Does the design address the fulfillment of the objectives?
- Project Plan:
 - Does the management plan articulate the tasks and assignments to investigators clearly?
 - Are the activities and research schedule clearly specified?
 - Have adequate procedures for monitoring and evaluating the progress of the project been proposed?
 - Is the duration of the project reasonable?
- Research Team:
 - Does the PI or Co-PI have the expertise to conduct the proposed research?
 - Is the supporting staff number sufficient?
 - Does the reviewer suggest additional members?
- Feasibility: The availability of facilities, finance and manpower
- Budget: Is the project budget reasonably estimated?

Category

Score
1 to 4

Please score following aspects of proposal and justify your scores. Each criterion is rated from 1 "poor" to 4 "excellent"

Importance and relevance to research priorities

Comments:

Originality and innovation

Comments:

Rational and background

Comments:

Experimental design and methods

Comments:

Project Plan:

Comments:

Research Team

Comments:

Feasibility

Comments:

Budget: reasonably estimated

Comments:

Additional Comments

Changes which must be made

Overall Recommendation (check one)

- Approve
- Revision needed
- Reject



Expense Report No.
Page 1 of 2

Alfaisal University Expense Report - General

Sec **This form should be filled out by the Primary Investigator for both Start-up Funding and Awards and forwarded to the Office of Research.**

Section I		Purpose of Trip:	
Employee ID:			
Charge to Project Number:			
Accounting use only		27. Total Expense (Line 22)	
<i>Note: All expenses should be reported in Saudi Riyals.</i>		28. Less Amt. Paid by Alfaisal	-
Reimbursement Requested: US \$ () Riyals (x)		29. Less Advances	
		30. Balance due:	
		Company Alfaisal	
		Employee	US\$
			Riyals
			-

Section II-Include All Expenses in Saudi Riyals. *Amounts Over SR 50.00 for Meals Must Be Supported by Receipts*

1. City								Total	Acctg
2. Month/Day/Year								Total	Use Only
3. Exchange Rate									
4. Airline Tickets (Allowable)								0.00	
5. Automobile Rental								0.00	
6. Taxi/Limo								0.00	
7. Tolls/Parking								0.00	
8. Local Mileage								0.00	
9. Conferences & Meetings								0.00	
10. Telephone & Fax (Travel)								0.00	
11. Other (From Page 2)								0.00	
12. Subtotal Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13. Hotel								0.00	
14. Personal Meals								0.00	
15. Valet/Laundry								0.00	
16. Other (From Page 2)								0.00	
17. Subtotal Per Diem	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
18. Promotional Items								0.00	-----
19. Entertainment								0.00	-----
20. Other (From Page 2)								0.00	
21. Subtotal Unallowable	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22. Total Expense	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
23. Per Diem Rate									
24. Excess Per Diem									
Posting DR _____ CR _____									
25. Total Paid by Alfaisal									
26. Total Paid by Employee									

Original Receipts must be attached for all the expenses claimed

PURCHASE REQUISITION		REQUESTED BY:			REQUESTER PHONE:	
DATE:		REQUEST #:				
RECOMMENDED SUPPLIER NAME:				PROJECT NO.:		
<u>DELIVERY ADDRESS:</u>				APPROVED BY OFFICE OF RESEARCH:		SIGNATURE:
				NAME:		
CONTACT PERSON:		TITLE:				
PHONE #:		REMARKS:				
LOCATION:		NEEDED BY:				
S.N.	DESCRIPTION	U/M	QTY.	UNIT PRICE	TOTAL	REQ. DATE
1						
2						
3						
4						
5						
6						
7						
8						
9						
TOTALS						

Finance Review

TOTAL PROJECT BUDGET: _____ TOTAL AMOUNT REQUESTED: _____ TOTAL REMAINING: _____	
_____ Date	_____ Approval

