King Fahd University of Petroleum and Minerals

Deanship of Academic Development

Proposed

Faculty Development Program

May 2004
1. Introduction

A Faculty member wishing to achieve a successful career faces a multitude of challenges resulting from his various responsibilities. A freshly appointed junior faculty needs to quickly develop to cope and adapt to effective teaching, evolving instructional technologies, and advances in his field of interest. A junior faculty member is a one who obtained his Ph.D within three years from joining the university, however all faculty members need to develop to attain their highest expectations. This faculty development program is required for all junior faculties and optional for other faculty members except those required by the department chairman.

Academic success requires a faculty to strike a critical balance between these different areas. Successful faculty members achieve this balance by experience and often times after tremendous effort, overwhelming, and even frustration. While nothing substitutes hard work, career development plans for junior faculty can accelerate the process of flourishing a junior faculty and may very well reduce frustration. Experience gathered from implementing junior faculty career development programs indicates that faculty members whom their institution actively contributes for their career development are more likely to stay longer and give back to that institution in scholarly productivity and creativity.

There is no structured faculty development program at King Fahd University of Petroleum and Minerals (KFUPM), even though; there are many venues available for development in research and teaching. This document presents a structured faculty development program at KFUPM.

The faculty development program at KFUPM has three main components. These components are:

1. The University standards and indicators for effective teaching, learning and research. These standards are expected to aid faculty members, mentors and chairmen in gauging progress and identifying action plans for faculty development.
2. A structured review process to identify the faculty member needs for development in teaching, learning and research.
3. A set of activities that are expected to assist the faculty member in developing and achieving the standards prescribed in item 1.

Chairmen play pivotal role in the development of junior faculty members by providing the followings:

- Articulate evaluation and promotion criteria at KFUPM.
- Reduce teaching assignments and committees in the first year.
- Provide information about research interests of faculty in the department and the existing departmental areas of excellence in research.
• Discuss the junior faculty research interest and arranging links with experienced faculty sharing similar interests.
• Facilitate the acquisition of resources (laboratory space, equipment, and consumables)
• The chairman and the new faculty should discuss a two-year research plan with certain goals and landmarks such as submitting junior faculty grant proposal and/or joining a research team in ongoing research.
• Assist and facilitate the selection of a mentor.

Figures 1 and 2 present the framework for faculty development in teaching learning and research. Section 2 states the objectives of the faculty development program and section 3 presents the standards for teaching, learning and research. Section 4 describes various activities that could be utilized for faculty development in teaching, learning and research. Section 5 outlines the review process and the needed forms for monitoring faculty progress are given in Appendix A. Appendix B contain the teaching, learning and research standards.

2. Objectives

The objectives of the faculty development program at KFUPM are:

• To foster an environment of continuous improvement and development at KFUPM.
• To assist faculty members to attain their highest potential in teaching and research
• To improve students’ learning at KFUPM
• To provide information to chairmen and mentors to work collaboratively with individual faculty members to help them improve their performance.
Identity strengths and weakness in teaching and learning based on teaching and learning standards

- Develop 4-year goals for development and improvement
- Set crystal clear one year goals for development and improvement

- Formulate one year action plan to achieve yearly goals
- Set a general plan to achieve 4 years goals.

- Review progress annually for new junior faculty
- Review progress every two years for others

Peer consultation
Mentoring
Teaching & Learning Grants

Other actions such as
- course coordination
- Workshops
- Certification programs

Figure 1. A framework for faculty development in teaching and learning
Figure 2. A framework for faculty development in research

Mentor Input

Faculty self appraisal

Chairman input

Identity faculty member current status in research based standards

- Develop 4-year goals for development in research
- Set crystal clear one year goal for development in research

Formulate one year action plan to achieve the one years goals
Set a general plan to achieve the 4 years goals

- Review progress annually for new junior faculty
- Review progress every two years for others
3. **Teaching, learning and Research Standards and Indicators**

The standards and indicators are expected to guide the faculty member, the mentor and the chairman in gauging progress and identifying action plans for improvement. They provide a reference point from which all parties can act.

### 3.1. Teaching and Learning Standards and Indicators

The teaching and learning standards are based on the achievements in the following competencies:

1. Knowledge base: Content and pedagogical knowledge.
2. Application of knowledge base: Applying principles of learning into practice.
3. Transfer of knowledge: Effective transfer of knowledge to colleagues, students and society.
4. Interpersonal skills: Interactions with students and colleagues.
5. Motivation: Intrinsic motivation and ability to motivate students.

For each of the five areas a set of statement/standards are developed to aid in assessing the strengths and weaknesses of faculty member teaching and learning performance in order to develop an appropriate action plan. The standards and indicators are provided in appendix B.

### 3.2 Research Standards and Indicators

The research standards are based on KFUPM promotion guidelines that include the following:

1. Ability to publish Journal papers: The standard is based on publishing 5 Journal papers in 4 years in order to achieve KFUPM promotion requirements.
2. Ability to publish conference papers: The standards call for attending and publishing one conference paper per year.
3. Involvement in sponsored projects: Chairmen and the research committee should facilitate for junior faculty members one seed project followed by a second one if the first project is successful.
4. The Review Process

The purpose of the review process is to develop a clear four years faculty development plan in teaching, learning and research and set yearly achievable goals. Then develop an action plan to achieve the yearly goals. The faculty member assisted by his mentor (if available) and the department chairman develops the four-year plan and the yearly goals. The faculty member will utilize the following in formulating his development plan:

1. The teaching, learning and the research standards and indicators.
2. Faculty member appraisal of his current situation.
3. Students’ input in case of teaching.
4. Mentor input (if available).
5. Chairman input.
6. Available University and departmental resources.

The chairman role will be at higher level that includes approving and concurring with the developed plan. A form is developed to assist the faculty member and the mentor in formulating the development plan and to aid the chairman in monitoring the plan. The form has two main parts. Part A for teaching and learning and part B for research. Each part has three sections. The first section in part A is devoted to identifying four years and yearly goals for teaching and learning. The first section of part B is for identifying four years and two years goals for research. Section two of part A and B identifies required action plan and part three of the form is used for monitoring the progress to achieve the set goals. The frequency of the progress review depends on the seniority, experience and the rank of the faculty member. The progress review frequency is recommended to be yearly for junior faculty members and every two years for senior faculty members.

5. Developmental Activities

To achieve teaching, learning and research goals several activities could be conducted.

5.1 Developmental Activities in Teaching and Learning

The teaching and learning activities include:

- International, national and KFUPM workshops and conferences.
- Peer consultation
- Course coordination assignment.
- Teaching and learning grants.
- Mentoring.
- Teaching exchange program
- Certification program
5.1.1 International, national and KFUPM workshops

Many faculty join KFUPM after getting their Ph.D. without much experience in teaching. In order to help KFUPM faculty excel in their teaching mission, they should be provided with the necessary training and exposure to the various teaching and learning methods and approaches. This can be achieved through the organization of local teaching and learning workshops and seminars as well as supporting faculty members to attend national and international conferences on the subject.

5.1.2 Peer Consultation (PC)

The main objective of PC is to provide faculty members with formative feedback on their teaching, intended exclusively for faculty self-development of their teaching skills. The feedback will make KFUPM faculty members better and more-effective teachers, leading ultimately to the enhancement of student learning. Dad has an established program in PC. The program is expected to be very beneficial to all KFUPM faculty members, as it provides them with valuable and constructive feedback on their teaching skills and techniques. It is worth mentioning that similar programs currently exist in about 40% of all higher education institutions in North America.

5.1.3 Course coordination assignment.

In multi section courses senior and junior faculty members can be assigned together to develop course syllabus and grading policy. The group assigned to each course can meet regularly to assess course progress and means for improving delivery.

5.1.4 Teaching and learning grants

The purpose of the teaching and learning grants is to provide financial support for faculty members to carry out projects and activities that assist in achieving the enhancement of teaching and learning environment at KFUPM.

5.1.5 Mentoring in teaching

A mentor is a trusted counselor or an experienced adviser or guide. In an academic setting, a mentor is often a senior faculty member who advises or guides a junior faculty member in matters relating to academic achievements. Mentoring is essential for academic success and should start as early as possible. Mentoring can be formal or informal where the former is more appropriate in career development plans. Mentoring is considered as the responsibility of the Department Chairman who will assign an appropriate mentor for the junior faculty. He will keep track of the mentoring process by having a semi annual meeting with the mentee and the mentor.

The faculty member will choose a mentor in consultation with the department chairman. The mentor should be a senior faculty member with outstanding academic record and supportive personality. It should be made clear that the mentor is expected to assist the mentee in creating
an agenda for working toward his professional development goals and to provide the mentee with insights into the process of building successful teaching career. The mentor is considered as an active participant in the process and does not serve merely as a role model for the mentee. The followings are some guidelines for the mentoring process:

- Train a group of interested senior faculty in the process of mentoring through structured workshops.
- Selection of mentor/mentee based on mutual agreement and could be terminated at the request of either one.
- Mentor willingness to be a mentor is very important for the success of this program.
- Mentoring is a professional obligation rather than a burden.
- Mentor should be amenable to mentee and should assist mentee to establish short and long term teaching objectives.
- Mentor should assist junior faculty to succeed in making a balance between research, teaching, and other services.
- Assist developing course outline and grading policy.
- Provide insights in good course delivery.
- Conduct at least one or two meetings every semester.
- Mentoring should be maintained confidential.

5.1.6 Teaching exchange program

The objective of this program is to exchange expertise in teaching among faculty members with other reputable institutions. KFUPM faculty will be allowed to spend one semester or one year teaching in another reputable institution. This will allow the faculty an opportunity to gain new experiences from such new environment, exchange ideas and views with colleagues in the new place, and have a chance to change his usual teaching environment. This will also give him the chance to be exposed to different groups of students and enrich his teaching and learning experience. DAD should develop the details of the procedure for teaching exchange.

5.1.7 Certification Program

The certification program consists of a number of workshops in the area of teaching and learning. This program is compulsory for junior faculty members. Junior faculty members are those faculty members with no teaching and research experience. In other words these are fresh graduates with the Ph.D. The certification program includes the following workshops:

- Course preparation and delivery.
- Theory of learning.
- Student centered learning.
- Student motivation.
- Effective and interactive teaching.
• Communication/presentation skills
• Critical thinking
• Measurement and evaluation
• Instructional technology

The certification program should be completed over a period of 2-3 years. The details of the certification program will developed after the approval of the faculty development program.

5.2 Developmental Activities in Research

The research developmental activities include:

5.2.1 Workshops on Research Skills

Development in research requires vast amount of hard working and determination from the faculty side. However, faculty members need to boost their enthusiasm in research achievements from time to time. The Deanship of Academic Development can assist in this regard by inviting internationally renowned researchers in science, engineering, and business to deliver lectures and workshops in elements of successful research and publishing good quality research. It should be emphasized that the success of the suggested lectures and workshops depend largely on the high quality of the delivering people. Successful programs can benefit the whole university including, faculty, staff, and students and hence worth all the effort and resources put forward. Proposed workshop titles on enhancing research skills may include:

• Research at KFUPM: procedures and available support
• Tips and techniques for writing publications.
• Effective MS and Ph.D. supervision.
• Proposal writing techniques.
• Managing research projects.

5.2.2 Faculty Mentoring

The desirable characteristics of a mentor and the elements of a mentoring program are presented in section 5.1.5. The focus in this section is on the role of the mentor regarding developmental research activities. The mentor should

• Be amenable to mentee.
• Assist mentee in establishing short and long term research objectives.
• Assist mentee in striking a balance between research, teaching, and other services.
• Review the mentee publication manuscripts and proposals and provide input in this regard.
• Provide advises in publications, available funds, and career activities.
• Conduct several regular meetings with the mentee every semester.
5.2.3 **Junior Faculty Grant**

The main objective of the grant is to assist junior faculty members to get started in research and get an opportunity to conduct independent research. The guidelines for these grants are available at the Deanship of Scientific Research.

5.2.4 **Industrial Experience**

The main objective of the industrial experience is to gain practical experience and enhance the interaction between the university and the industry. In this program, the faculty will be allowed to spend a summer, one or two semesters working in industry/business.

5.2.5 **Summer assignments**

This program will allow junior faculty members to have a one month summer contract during the first two years of their joining the university to accomplish certain developmental activities in the area of teaching or research. Interested faculty members need to submit a one to two page write-up to the department chairman describing the activity that will be carried out, justification and the deliverables that are expected from assignments.
Appendix A: Faculty Development Review Form
Part A: Teaching and Learning Development Plan

I. Goals

Based on the teaching and learning standards (given in appendix B), self appraisal, students input, mentor and chairman input state 4-years goals in teaching and learning.

1.
2.
3.
4.
5.

Based on the 4-year goals develop one year goals.

1.
2.
3.

II. Action plan to achieve yearly goals.

1.
2.
3.

III. Progress review

The faculty member and the chairman review the progress in achieving the set goals with the emphasis on the following:

1. Accomplishment of yearly goals.
2. Areas need improvement.

In light of 1 and 2 necessary corrective actions should be identified and implemented.
Part B: Research Development Plan

I. Goals

Based on the research standards, self appraisal, mentor and chairman input state the 4-years goals in research.

1.  
2.  
3.  
4.  
5.  

Based on the 4-year goals develop one year goals.

1.  
2.  
3.  

II. Action plan to achieve the one year goals.

1.  
2.  
3.  

III. Progress review

The faculty member and the chairman review the progress in achieving the set goals with the emphasis on the following:

3. Accomplishment of yearly goals.

4. Areas need improvement.

In light of 1 and 2 necessary corrective actions should be identified and implemented.

Faculty Member Name: ---------------------------- Signature: --------------------------

Chairman name: ------------------------------ Signature: ------------------------
Appendix B: Teaching and Learning Standards
Teaching Performance Standards and Indicators

1. **Knowledge Base: Subject field and pedagogical knowledge**
   Using the information available from student input, self-appraisal, and peer observation; the faculty member should demonstrate how he performed satisfactorily in the following:

   1.1 Understands the principles of student learning
   1.2 Shows evidence of being current in his field
   1.3 Shows evidence of being current in pedagogy
   1.4 Demonstrates ability to develop and implement clear learning goals
   1.5 Demonstrates ability to prepare and conduct classes well

2. **Application of Knowledge Base: Applying the principles of learning into practice**
   Using the information available from student input, self-appraisal, and peer observation; the faculty member should demonstrate how he performed satisfactorily in the following:

   2.1 Gives assignments that promote independent thinking
   2.2 Designs curriculum material and assignments that promote critical thinking
   2.3 Uses instructional technology in the classroom
   2.4 Promotes the use of IT by students in course work
   2.5 Relates assignments and tests to the content and objectives of the course
   2.6 Updates teaching and learning with state of the art knowledge and real case studies
   2.7 Provides feedback to students on their academic progress

3. **Transfer of Knowledge: Transferring knowledge to students, colleagues, and the society**
   Using the information available from student input, self-appraisal, and peer observation; the faculty member should demonstrate how he performed satisfactorily in the following:

   3.1 Relates class experience to the world of work
   3.2 Provides mentoring to colleagues
   3.3 Collaborates with colleagues in coordinated course, curriculum design, course development, etc.
   3.4 Shares educational experiences with colleagues
   3.5 Participates in professional societies
   3.6 Participates in continuing education through short courses
   3.7 Participates in consulting projects

4. **Interpersonal Skills: Interactions with students and colleagues**
   Using the information available from student input, self-appraisal, and peer observation; the faculty member should demonstrate how he performed satisfactorily in the following:

   4.1 Shows respect towards students
4.2 Responds to students’ needs
4.3 Attends classes on time
4.4 Available to students
4.5 Communicates to students in a clear way
4.6 Evaluates and grades assignments, tests and students work fairly
4.7 Returns assignments and tests on time
4.8 Works collaboratively with colleagues
4.9 Participates actively in department, college, and university activities

5. **Motivation: Intrinsic motivation and ability to motivate students**
Using the information available from student input, self-appraisal, and peer observation; the faculty member should demonstrate how he performed satisfactorily in the following:
5.1 Set challenging educational performance and professional goals
5.2 Show positive attitude towards students
5.3 Motivates students to learn
5.4 Provides motivating professional and academic advising to students