

Example Abstracts for the Faculty Development Leave Program

Each faculty development leave (FDL) proposal is reviewed at the college or library level by a committee which includes faculty representation. Each application includes a brief abstract which is reviewed by the Board of Regents prior to approval of the leave.

These abstracts are limited to 100 words, must be written in the third person, **should be written for an educated layperson**, and must include:

- Place where leave will take place
- Activities that will take place during the leave
- Benefits of the leave to:
 - Research program
 - Students/teaching
 - Department, college and/or university
- Expected impacts (should be focused on effects beneficial to the University)

**Note: the abstract should not be composed of bullet points; the outline provided above is for guidance in composition only.*

Over the past several years, an increasing number of abstracts have been submitted which do not meet the Board of Regents' criteria listed above. This has resulted in many of the abstracts having to be re-written by the FDL liaisons for the college, or by DOF or TAMU System staff in order for the abstracts to be acceptable and the FDL to be granted to the faculty member.

Beginning in 2015, we will no longer re-write abstracts that fail to meet the Board of Regents' standards listed above. Abstracts which do not meet these standards will be returned to the faculty member who is applying for leave to be re-written. If the re-written abstract is submitted after October 23, or if the re-written abstract is not satisfactory to the committee, the faculty member will be denied leave.

In order to provide guidance to faculty members, department heads, college review committees, and deans, the following table contains a number of the abstracts which were edited and submitted to the Board of Regents last year, presented next to their original submitted form. The abstracts are organized by college. Faculty member's names have been removed, but the details of their leave have been left in place so as not to alter the meaning of the abstracts.

Dwight Look College of Engineering

Before	After
<p>XXX will use his FDL for extended visits to federal labs at NASA-Langley in Virginia, NAVAIR in Maryland, and ARL in Maryland to collaborate on research in aerodynamic-structural dynamic interaction. XXX will build on recent developments in computational tools, ground and flight test approaches, and improved vehicle performance. The research builds the A&M interest in Uninhabited Aerial Vehicles and supports our envisioned participation in NASA's Aeronautics Strategic thrust in Ultra-Efficient Commercial Vehicles to minimize energy consumption. The FDL enhances academic course content, XXX research, opportunities for graduate students, and students in programs such as the NSF Research Experience for Undergraduates.</p>	<p>Dr. XXX will use his leave for extended visits to federal labs at the National Aeronautics and Space Administration (NASA); the Langley Research Center in Virginia; the Naval Air Systems Command in Maryland; and the Army Research Laboratory in Maryland, to collaborate on research in aerodynamic-structural dynamic interaction. He will build on recent developments in computational tools, ground and flight test approaches, and improved vehicle performance. The research builds the Texas A&M interest in unmanned aerial vehicles and supports Texas A&M's participation in NASA's aeronautics strategic thrust in ultra-efficient commercial vehicles to minimize energy consumption. His leave will enhance his research, strengthen academic course content, and provide opportunities for graduate students and students in programs such as the National Science Foundation research experience for undergraduates.</p>
<p>Place: Imperial College London (London, United Kingdom)</p> <p>Activities: Collaborative research with XXX (Professor, Faculty of Engineering, Department of Materials).</p> <p>Benefits to Leave: (1) Research Program: learning new methodologies, overcoming current research challenges/limitations, developing new research projects, increasing international reputation and forming strong collaborations. (2) Students /Teaching: Techniques and methods learned will be incorporated into research program and course materials. (3) Dept./college/TAMU: Strengthened research funding (both individually and with new collaborators), recruitment of graduate students to department and COE as well as</p>	<p>Dr. XXX will use her leave to work with Professor Julian Jones at Imperial College London, United Kingdom, on several challenging scientific issues. First, she will apply their 3D characterization technique to analyze the porosity in shape memory polymer (SMP) foam scaffolds designed at Texas A&M to heal bone defects. Second, she will incorporate their new bioactive glass materials into the SMP scaffolds to determine the impact on bioactivity and the enhancement of stiffness and strength. Third, she will use methods developed by Professor Jones to non-invasively probe cell-material interactions. Dr. XXX will incorporate these techniques to significantly boost her research program and her courses at Texas A&M. The collaboration will help strengthen the international reputation of the Biomedical Engineering Department and Texas A&M.</p>

<p>promoting TAMU to the international community.</p> <p>Expected Impacts: Strengthening of research and teaching programs.</p>	
<p>Through my FDL at Hanyang Univ., Korea, I will develop new concepts for gas separation, helping me establish 1) a new research direction, 2) a new course, and 3) collaborative research programs</p>	<p>Leave will take place at Hanyang University, Korea, in Professor Young Moo Lee's Membrane Science and Engineering laboratory. The main objective of Dr. XXX leave is to create a new research direction by establishing collaboration with Professor Lee in the area of gas separation membrane science and engineering. Dr. XXX expects this collaboration to generate key preliminary data that will form the basis of future grant applications and new research directions in his laboratory. Texas A&M will benefit through the development of two new courses based on Dr. XXX research, an increased international profile, and potential new funding sources for research.</p>
<p>I will remain in College Station during my development leave, working off campus, to allow time to focus on publications, proposal development, and related activities. In addition, I intend take several trips, as funds permit, to visit with colleagues in academia and industry. I also plan to meet with TAMU faculty in other disciplines to discuss future collaborations. These interactions are very important and will serve to bring visibility to my recent research, explore multidisciplinary research opportunities, establish future research directions, complement my classroom teaching, and provide positive exposure for TAMU, the College of Engineering, and the Civil Engineering Department.</p>	<p>Dr. XXX will use her leave to complete several publications based on three recent research projects and collaborate with others to advance her scholarship in several important areas. She will explore new research areas in the preservation of historic bridges through the Center for Heritage Conservation at Texas A&M and will visit Professor Gustavo Parra-Montesinos at the University of Wisconsin to collaborate in the area of earthquake-resistant design of concrete structures. These interactions are very important to bring national recognition to her research program, enabling her to explore multidisciplinary research opportunities, establish future research directions, complement her classroom teaching, and provide positive exposure for Texas A&M, the college and department.</p>
<p>During the past 24-yr period, I have never applied for a faculty development leave and kept on working diligently. I feel like that now is the right time for me to have the 1st faculty development leave for recharge. The main purpose includes co-working with Korean sponsors for 5 ongoing</p>	<p>Leave will be spent primarily in South Korea. While in Korea, Dr. XXX will visit with the sponsors of his five current Texas A&M Engineering Experiment Station research projects. Dr. XXX will also spend some time in College Station writing a textbook entitled <i>Wave Structure Interaction and</i></p>

<p>projects, publishing a textbook, visiting former students, universities, and agencies for recruiting and developing projects, and updating new technologies. I plan to stay in Korea for 2 months in fall 2015 and another 2.5 months in spring 2016. The salary of six months will be covered by my 5 research projects by Korean sponsors.</p>	<p><i>Offshore-system Dynamics</i>, which will be targeted to his senior-level undergraduate and master-level graduate students specializing in ocean engineering. The textbook is being written to provide a practical approach to a subject that has lacked such a text in the past. Texas A&M will benefit from these activities as Dr. XXX will actively search out new research and funding opportunities for his research activities and students. In addition, he will incorporate his writings into his courses at Texas A&M.</p>
<p>I will visit Microsoft Research Asia and Fudan University in China, and develop collaborative research projects to advance research in cyber security. The planned visit will leverage expertise from both sides and, in particular, enable me to have the access to several real-world systems and datasets that are hard to find elsewhere. The collaborative projects will generate new course materials, and project the reputation of our department, college, and Texas A&M University as whole to China. The collaboration will lead to developing new algorithms, techniques, and systems for cyber security, as well as generating new publications and joint proposals</p>	<p>Dr. XXX will visit Microsoft Research Asia and Fudan University in China, and develop collaborative research projects to advance research in cyber security. The planned visit will leverage expertise from both sides and, in particular, enable Dr. XXX to have access to several real-world systems and datasets that are hard to find elsewhere. The collaborative projects will generate new course materials and promote the reputation of the department, college, and Texas A&M as a whole to China. The collaboration will lead to developing new algorithms, techniques, and systems for cyber security, as well as generating new publications and joint research proposals.</p>
<p>I request a one-semester faculty development leave during Fall 2015 to work in the area of mobile health. During this period I will read broadly on health promotion tools (personal informatics, serious games, social networks), gain practical experience in software development for mobile devices, and prepare an NIH grant application (R01) on technological interventions for stress and obesity. My plan is to stay in College Station for the duration of the sabbatical leave because of family constraints and research supervision responsibilities.</p> <p>The leave will allow me to develop new research ideas in an area of critical need for the nation, and will culminate in a large grant application to NIH in February</p>	<p>Leave will be spent in College Station, Texas, working in the area of mobile health as part of the recently established Center for Remote Healthcare Technology at Texas A&M. During this period, Dr. XXX will develop and align research ideas in a critical need area through the study of health promotion tools (personal informatics, serious games, and social networks), gain practical experience in software development for mobile devices, and prepare a National Institutes of Health grant application (R01) on technological interventions for stress and obesity. Texas A&M will benefit from his increased practical experience which will be reflected within his teaching and research.</p>

<p>2016. The objectives of my proposed research plan are well aligned with the recently-established Center for Remote Healthcare Technology (CRHT) at Texas A&M University.</p>	
<p>The one semester leave in Fall 2015 will be spent working with the Japanese Atomic Energy Agency to document and analyze the use of robots for the Fukushima Daiichi nuclear power plant. Data collection will take place in Japan under the recent JAEA-TEES memorandum of understanding, and analysis in the US, resulting in a book "Disaster Robots at Fukushima." The development leave will allow Dr. XXX to increase her expertise in disaster robotics, write collaborative JST-NSF grants with Japanese universities and set up a Study Abroad Program, and increase knowledge and opportunities for TAMU researchers in computer science, nuclear engineering, and robotics.</p>	<p>Leave will be spent working with the Japanese Atomic Energy Agency (JAEA) to document and analyze the use of robots for the Fukushima Daiichi Nuclear Power Plant. Data collection will take place in Japan under the recent JAEA-TEES memorandum of understanding and analysis in the United States, resulting in a book, <i>Disaster Robots at Fukushima</i>. The leave will allow Dr. XXX to increase her expertise in disaster robotics, write collaborative Japan Science Technology-National Science Foundation grants with Japanese universities, organize a Study Abroad Program, and increase knowledge and opportunities for Texas A&M researchers in computer science, nuclear engineering, and robotics.</p>
<p>Leave will be spent at Google Inc. at Mountain View, California, conducting collaborative research. The research is to develop new low power computing technologies, test them in industrial environment. The experience will be applied to research projects and courses at the department of ECE of Texas A&M University, and help students to learn leading edge technologies. It will improve visibility of Texas A&M University and its engineering program.</p>	<p>Leave will be spent at Google Inc. at Mountain View, California, conducting collaborative research on the development of new low power computing technologies and testing them in an industrial environment. Research findings will be incorporated into lectures to assist students in learning leading edge technology. The work will establish important collaborations and increase the visibility of Texas A&M and its engineering program.</p>
<p>The Leave will be at the Federal University of Rio de Janeiro, Federal University of Santa Catarina, and Universidade Estadual de Campinas in Brazil, and at Texas A&M University at Qatar. The focus is on studying the impacts of synchronized sampling and synchrophasors technology on the future applications in monitoring, control and protection of power systems. The universities and industry in Brazil and Qatar are keenly interested in learning how the wide-spread use of this technology may benefit from research, teaching and training. The USA government and industry</p>	<p>The leave will take place at the Federal University of Rio de Janeiro, Federal University of Santa Catarina, and Universidade Estadual de Campinas in Brazil, and at Texas A&M University at Qatar. The focus will be to study the impacts of synchronized sampling and synchrophasors technology on the future applications in monitoring, control and protection of power systems. The universities and industry in Brazil and Qatar are keenly interested in learning how the wide-spread use of this technology may benefit from research, teaching and</p>

<p>have heavily invested in this technology, so the experiences will be invaluable.</p>	<p>training. The U.S. government and industry have heavily invested in this technology, and the leave will benefit Texas A&M by raising its profile in this area and by allowing Dr. XXX to incorporate this information into his teaching.</p>
<p>During my one-year faculty development leave, I will be fully immersed on research on cyber-security and signaling for cloud Internet telephony. This will advance my research program at Texas A&M and allow my undergraduate students to work on applied research. My collaborator is Dr. XXX, whose work on cooperative firewalls will help advance my research on cyber-security. We also plan to write a textbook on signaling to teach students the art of network design. To work closely with Dr. XXX, I request that my leave takes place in the Department of Communications and Networks at Aalto University, in Finland.</p>	<p>Leave will take place in the Department of Communications and Networks at Aalto University in Finland. Dr. XXX will be fully immersed in research on cyber-security and signaling for internet phone systems hosted in the cloud. This will advance her research program at Texas A&M and allow her undergraduate students to work on applied research. Dr. XXX collaborator will be Dr. XXX, whose work on cooperative firewalls will help advance her research on cyber-security. Dr. XXX also plans to co-write a textbook on signaling to teach students the art of network design.</p>
<p>Place: Imperial College London (London, United Kingdom)</p> <p>Activities: Collaborative research with XXX (Professor, Faculty of Engineering, Department of Materials).</p> <p>Benefits to Leave: (1) Research Program: learning new methodologies, overcoming current research challenges/limitations, developing new research projects, increasing international reputation and forming strong collaborations. (2) Students /Teaching: Techniques and methods learned will be incorporated into research program and course materials. (3) Dept./college/TAMU: Strengthened research funding (both individually and with new collaborators), recruitment of graduate students to department and COE as well as promoting TAMU to the international community.</p> <p>Expected Impacts: Strengthening of research and teaching programs.</p>	<p>Dr. Jaime XXX will develop crucial new techniques through visits to several world renowned scientists. In September, he will work with Dr. Katsuhiko Ariga at the National Institute of Materials Science in Tskuba, Japan, to adopt some of his techniques to develop thin films for gas purification. In October, he will collaborate with Professor Giovanni Camino in Alessandria, Italy, to use his advanced equipment to characterize fire retardant films fabricated at Texas A&M and teach a two-week short course. During November and December, he will collaborate with Professor Samuel Graham at Georgia Institute of Technology to co-develop high gas and moisture barrier thin films that may enable a television screen to be rolled up like a piece of paper and remain operational. These collaborations will significantly boost Dr. XXX research program by bringing in new funding and joint patents and publications.</p>
<p>I will spend my leave at UC Davis and PCCL Austria to study polymer degradation, and</p>	<p>Leave will be spent at the University of California, Davis, the Polymer Competence</p>

at TAMU for studying shape changes in foldable polymer. The research activities will involve undergraduate and graduate students, and the outcomes will be incorporated to mechanics courses at TAMU. Knowledge gained from the leave can open opportunities for future research in polymers and biomaterials. The research outcomes will enhance understanding on lifetime and aging of polymers during their service, which is important and mandatory for reliable design of polymeric structures

Center Leoben in Austria to study polymer degradation, and at Texas A&M for studying shape changes in foldable polymers. The research activities will involve undergraduate and graduate students, and the outcomes will be incorporated into mechanical engineering courses at Texas A&M. Knowledge gained from the leave can open opportunities for future research in polymers and biomaterials. The research outcomes will enhance understanding on the lifetime and aging of polymers during their service, which is important and mandatory for reliable design of polymeric structures.