

Faculty Inquiry Group projects (FIGs): 2014-15

Faculty inquiry money was established in the 2014 contract negotiations process. A 2-year budget of \$90,000 was established for faculty to engage in inquiry projects. There were no requirements placed on the inquiry projects, and guidelines were not established. This funding was established in a FIG budget in Fall 2015. The faculty professional development coordinator (Dr. Beta Meyer) in consultation with multiple members involved in the bargaining process, determined that these investigations were not limited to standard inquiry projects seen in the literature. The vision of the current faculty inquiry projects is to explore areas including classroom applications, classroom delivery, assessments, teaching innovations, new collaborations, development of tools or models for better instructional delivery, development of tools and strategies to improve student retention and success, and more.

A consultant (Sylvia Smythe) was hired to introduce the inquiry projects to the campus, and to assist in leading inquiry discussions. Two sessions were held in Fall semester, 2015 for groups to learn about the inquiry process and the application procedures. Each session included a presentation about inquiry, and some active learning and discussion about inquiry followed by brainstorming about projects guided by both the consultant, Sylvia Smythe, and the FPDC coordinator. Our initial inquiry workshop also was supported by Stacey Gutierrez, POD manager, who aided in the discussions about potential projects, and worked with one of the groups. Each FIG workshop session was 4 hours long, with a light continental breakfast, and a taco luncheon.

As a result of the inquiry workshops, multiple applications came in to the FPDC. All were reviewed, and some projects were returned to the applicants, with suggestions for modifications to conform to the selection criteria. Faculty Professional Development Committee members reviewed the applications, and evaluated them on the basis of overall impact, feasibility, sustainability, program impact, campus impact, and specific pedagogy, practice, research basis, evaluation and use of results for each type of project. As a result, 7 projects were approved to start in either Winter 2015 or Spring 2015. Typical projects approved were for one to two semesters in duration, and projects ranged from involving a few faculty members in the investigation, to including most of the department in the project.

Faculty who could not make the two introductory FIG workshops were given information and applications electronically, or were provided one on one instruction by the FPDC coordinator.

A summary of projects approved is included, together with the funding, and the project status as of June, 2015.

Meetings were held every month on the first Friday of the month to have faculty interact and discuss their projects. Faculty tracked their hours using time sheets, and submitted all necessary paperwork for materials requests, or reimbursements at these meetings. Discussions involved current progress on the projects, and data collections/ analyses; struggles where the FPDC coordinator would work with the faculty to facilitate the project moving forward; and necessary changes in the proposal or support would also occur through these meetings. Meetings had light refreshments, and allowed faculty to see the progress made by their colleagues, and let them showcase their progress, results, and use of outcomes.

A final meeting for Spring 2015 was held on June 5, 2015. At this time, the workshops were being held for the next round of FIG applications in the morning following the previous model; followed by a taco luncheon; then followed by the final meeting of the 2014-15 FIG group.

Faculty Inquiry projects 2014-2015

Project	Details	Outcome
Consultant	Sylvia Smythe Sylvia was hired to present workshops to inform faculty about the inquiry process, and to facilitate faculty discussion on projects at several monthly meetings. Total funds allocated were \$5000.	Four FIG workshops to introduce faculty to inquiry, and the application process were presented. Total attendance of ____. Sylvia also assisted the FPDC coordinator in facilitating many of the FIG monthly meetings, working with faculty to move their projects forward, aiding conversations about process, assessment, and outcomes.
Architecture/ Planetarium collaboration to create overlapping projections in architecture design in order to literally be able to walk through a 3-D building design in the Planetarium.	Professor Robert Ho and Planetarium manager Heather Johnson collaborated in this project. The investigation was to use CAD software and Planetarium software, and create a version of a building design that you could literally sit inside and observe. Funding was provided to stipend the faculty member involved. Leave was permitted from the Planetarium manager's Division dean for participation- up to 20 total hours. Funding was allocated to purchase necessary software or hardware for data and system compatibility. Total funds allocated were \$5000.	Project was initiated and completed in Winter 2015. Additional outcomes: 1) Spreading and sharing of the availability and capability of the planetarium. 2) Making the connection between the planetarium (facility/capability) and the application for other discipline(s) such as architectural animation. 3) Faculty learning of the planetarium facility/capability and innovative synergy resulting from adjustments/expansion of architectural (animation) program and extended utilization/application of the planetarium. 4) Shared the accomplished experimental architectural animation/video projects in the planetarium (v. 7 on 4/3/15) to the FIG group and (v. 7, 8 and 9 on 5/12/15) to faculty (and some students) within the department and other departments. 5) Created FIG synergy by further inter-departmental cooperation, breaking-down departmental silo-isolation. What we discovered from our FIG already spread to Art faculty working with Heather.
Chemistry use of models to increase learning difficult stereochemistry in lecture and lab, models were purchased and used as part of lecture and lab activity.	Professors Jenny Leung and Kay Dutz collaborated in this project. The investigation compared the effects of learning stereochemistry (3-D molecule structure) with guided exercises in the lab, as compared to the traditional method of lecturing about the structures. Funding was provided to stipend the faculty. Small	Pre-tests were conducted of students in sections with the mandatory model exercises, and students in sections with optional out of class modeling activities. Student surveys were conducted about the lab exercises, and students felt that these exercises assisted them in completing written assessments and visualizing the structures. Exams held during the semester showed that the students had higher scores by one letter grade if models were

2014-15 Faculty Inquiry Project summaries with current status.

Faculty Inquiry projects 2014-2015

	funds from FPDC FIG budget covered additional model materials; the Instruction office provided \$1000 from lottery funds for the main modeling equipment. Total funds allocated were \$5000. Professors Julie Bray-Ali and Michael Hood collaborated with department faculty (full and part time) to develop assessment areas where students underperformed. They developed a standardized assessment to deliver to students collaboratively. The faculty developed some novel instructional delivery methods to teach problem areas, such as using the Planetarium to teach sky motion. Novel instruction was implemented in sections of Julie Bray Ali and Mike Hood. Students in all sections were given a pre-assessment prior to instruction, and a post-assessment after instruction. Total funds allocated were \$6960. Professor Ignacio Sardinias created a thermal chamber to give students novel instruction in thermal impacts on architecture design. This is an area where students have struggled, and the thermal chamber can be set for freezing and hot temperatures to demonstrate the effects of insulation, direct heat, frozen ground, and other architectural impacts. Students were given a pre-assessment, and then taught a lab using the thermal chamber. This was followed by a post assessment Funds were allocated to build the chamber, and to develop exercises to use the chamber, and then assessment of the efficacy of this instruction. Total funds allocated were \$4100.	implemented in a structured way in class time. Final assessments for overall retention and understanding were being conducted in early June at finals, and should be available in September 2015. All ASTR sections provided pre and post tests to assess the targeted topics. Pre-tests had similar means. Post-tests are being assessed, all the data is not yet analyzed. Some post-tests show an increased understanding of difficult concepts where novel methods of instructional delivery were used. Final analysis of results should be available in September 2015. Funding for this project came a bit later than anticipated, causing Professor Sardinias to build the chamber during Spring semester with little time to determine the parameters of function prior to the lab experience. The thermal chamber was able to hold temperatures of 33 °F (near freezing) and elevated heat temperatures. Students were able to physically see the effects of cold and heat on structures with no insulation, water insulation, and standard insulation. The chamber will be used again with modified assessments. It was discovered that changing multiple variables on the students was confusing them; but changing only one variable was helpful in understanding thermal effects. The project will be continued in classes, and the lab and assessments refined. Nursing tutors went to a 3-day training session provided by Bailey Smith, Director of the LARC.
Astronomy collaboration to standardize assessment and to investigate and compare strengths in different presentation formats for Astr 5 and Astr 8 students.		
Architecture creation of a thermal lab station that can be used to investigate issues in building- environment interactions and give students a hands-on understanding of environment impacts on building design.		
Nursing inquiry into methods to support students and relieve		

2014-15 Faculty Inquiry Project summaries with current status.

Faculty Inquiry projects 2014-2015

their stress while undergoing the program requirements.	They had identified the transition to Nursing and specific curriculum as stressful. Students were surveyed to determine base stress levels. Interventions were provided to reduce stress. Students either agreed to participate in a study of stress or not. Students who agreed were tracked in performance, stress, and attendance at interventions throughout the semester. Student surveys were regularly administered to focus on student stress and effect of interventions on stress and retention and success. Student surveys and student outcomes are undergoing analysis and results will be available in September 2015. Funds included tutor training, faculty stipends, Orientation booklet printing, and small prizes for the Orientation meeting. Total funds allocated were \$9160.	Nursing tutors trained Nursing faculty in holding effective group study sessions, and effective tutoring practices. Nursing faculty created a Orientation booklet for families, and distributed copies at the Open House to families of Nursing students. Booklets provided resources on campus, and gave families an idea of program requirements. Nursing faculty held multiple surveys of students during the semester. Surveys were based on perceived stress, and were administered to students participating in the study. Nursing provided multiple interventions for stress during the semester, including Health and Wellness Center interventions, tutoring, library tours, and more. Students attending interventions were tracked. All students were able to attend interventions. Outcomes in perceived stress will be tracked and correlated to course topic, and grade outcome. Results will be available in September 2015.
Music performance teacher collaboration to determine if a more structured type of individual practice will improve student performance in juried assessment at the end of the semester.	Professor Tiffany Kuo mobilized her department to investigate structured practice assignments and the outcome on student performance. 19 faculty were in the study, coordinated by Professor Kuo. Faculty were to administer surveys to their students about practice habits, and were to assign specific practice metrics for students to follow. Students perform at the beginning of the semester, and again at the end of the semester in juried performances for their grades. Total funds allocated were \$4850.	Music performance faculty met prior to the beginning of the semester on FLEX day to discuss the project, and the practice logs and surveys. The project commenced in Spring 2015. Students were provided metrics to follow for practice (following a published paper on effective practice). Students were administered surveys. Juried results were taking place during finals week. Analysis of outcomes will be provided in September 2015.
Chemistry use of Chem99 to develop curriculum to improve support of students in the General Chemistry/ Organic Chemistry transition, and to	The project is funded to begin in Summer 2015 and continue into the 2015 Fall. Professors Iraj Nehad and Charles Newman are exploring methods to increase student success in Organic Chemistry through additional curriculum	The Chem 99 course is being offered in the Summer 2015. Curriculum design of lecture and labs took place in Spring 2015. Outcomes will be available for the Chem 99 progress in Fall 2015, and in Winter 2015 the participants of Chem 99 will be

2014-15 Faculty Inquiry Project summaries with current status.



Faculty Inquiry projects 2014-2015

assess some C-ID aligned curriculum modifications in the General Chemistry curriculum.	targeting problem areas in understanding in the pre-requisite course, General Chemistry. Total funds allocated were \$4500 for the 2015-16 year.	assessed in the Fall 2015 Organic Chemistry for final impact and outcomes.
FIG workshops	Four workshops were held to introduce FIG process and the application procedures in the 2014-15 year. 2014-15 FIG projects: November and December 2014 were workshops for FIG projects to start in Winter, Spring or Summer 2015. 2015-16 FIG projects: May and June 2015 workshops were for projects to start in Summer 2015, Fall 2015 or Winter 2016.	In the 2014-15 academic year, _____ faculty attended FIG workshops to explore FIG funding and process. In addition, 3 faculty were given materials online about FIGs, and 2 were provided the materials and discussion in one on one sessions. 8 FIG proposals were submitted for the 2014-15 year, and 7 were funded. (see above results) 8 FIG proposals have been submitted for the 2015-16 year, and are currently under review.
FIG monthly meetings	FIG meetings were held in February, March, April, May and June 2015.	FIG faculty attended meetings, and discussed project needs, progress, and difficulties. FPDC coordinator worked to find solutions to budget changes; and held discussion to assist in project progression.
FPDC coordinator role	FPDC coordinator volunteered time to run workshops and monthly meetings, and do administrative behind the scenes work- Xeroxes, minutes, reports, book rooms, schedule food, track budget expenses, assist faculty with purchases, review and assist in application revisions, and advertise workshops. In meetings the role was the primary facilitator of faculty discussion, and the tracking of project expenses, faculty hours, and project progress. In workshops the role was the co-facilitator of faculty explorations of potential projects, and the organizer of the meeting details from location to food, to advertising, to scheduling, and so forth. Funds were set aside for this role, and should be used for a coordinator in the future- set aside were \$5000. Funds were waived by the FPDC coordinator in order to fund another FIG project in the 2014-15 cycle.	4 FIG workshops were scheduled and held; with consultant presentation, faculty explorations, and luncheon. 6 monthly meetings were held for FIG faculty in February, March, April, May and June 2015; with light refreshments and faculty project discussion. Faculty hours were collected through time sheets. Faculty progress was collected through minutes recorded by FPDC coordinator. Faculty purchasing needs were followed in the meetings; and altered as necessary.
Food purchases	4 FIG meetings were held with luncheon and light continental breakfast.	President Scroggins donated the food from Sodexo for the first FIG meeting in November 2015.

2014-15 Faculty Inquiry Project summaries with current status.



Faculty Inquiry projects 2014-2015

	5 monthly FIG meetings were held with light refreshments. Total allocated towards food was \$5000.	FIG budget funded the December, May and June meeting luncheons and light breakfasts. December was Sodexo catering; the others were Taco Nazo catering and Stater Brothers PO purchases. FIG budget funded the monthly FIG light refreshments in February, March, April, May and June. These were Stater Brothers PO purchases.
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BUDGET SUMMARY BY PROJECT
2014-15 FIGs

SPRING 2015

	Supplies	Cost each	Faculty stipends	Student workers	Consultant	Food	totals
1. Stereochemistry	models		2800		0	0	0
	model parts	1000			0	0	3800
2. 3-D Architecture	software	1000	4000		0	0	5000
3. Music instruction			4850		0	0	4850
4. Astronomy	scantrons	600	5880		480	0	6960
5. O Chem curriculum design	chemicals	500	4000		0	0	4500
6. Environmental chamber	building supplies	500	3600		0	0	4100
7. Nursing	Printing	400	8000		420	140	9160
Consultant Sylvia Smythe	FIG 2014-15						
Consultant Sylvia Smythe	FIG 2015-16					2000	2000
meetings	FIG 2014-15						
Initial meetings (Sodexo)	FIG 2014-15					1000	1000
TOTALS: 2014-15		4000	33130		900	4140	44370
Summer 2015- 2015-16 FIG budget						2200	

1. O Chem curriculum assessment

500

4000

4500