NATURAL SCIENCE DIVISION FACULTY DEVELOPMENT AND APPRAISAL PROGRAM **2010 Faculty Annual Review**

Date: <u>5.10.10</u>

Name of Candidate: Don Thompson Signature:

Here is my updated CV: http://dt.pepperdine.edu/resume.htm

The purpose of this form is to promote communication between faculty member and chairperson about the faculty member's development. Please complete the form in as much detail as possible. Include any additional documentation which might help the division chairperson to evaluate your performance in the areas of teaching, scholarly activity, and service.

Note: All references to the "upcoming year" will be in reference to 2011-12, because of my 2010-2011 sabbatical.

I. TEACHING

For the 2009-2010 academic year, please list the courses you taught and any teaching responsibilities which are not reflected in the list of courses taught (course revisions, advising, student directed research, development of instructional materials, etc.). What are your most significant accomplishments in the area of teaching during the academic year?

Mathematics

I taught 3 sections of Math 102 during the most recent academic year. I developed and taught this course using a "Great Books, Shared Inquiry and Atelier" approach to learning. In other words, I did not use the traditional lecture and textbook pedagogy, but instead relied exclusively on students' reading of original works, discussion, and problem solving through peer learning. I believe in this approach from having seen its benefits in my traditional Great Books courses. Furthermore, there is abundant scientific evidence that suggests that deeper learning occurs when we challenge students with core texts (rather than textbooks) and open demonstration in the classroom setting. Moreover, I reduce, rather than increase, the use of technology in this process, thereby demanding more thinking and reflection of the student. As a result, students learn to rely on their own critical thinking skills and thereby increase their ability to be independent thinkers. For this course, I used original works in Geometry (Euclid), Probability (Pascal and Fermat), Calculus (Newton and Leibniz), and Logic (Gödel). Students spent time every day at the board, working out solutions to classical mathematics problems, thereby deepening their understanding of the mathematical content and allowing me to interact with them in the moment, correcting error and reinforcing correct technique.

See: http://dt.pepperdine.edu/courses/102_spring_10/math102homespring2010.htm

Great Books

I taught Great Books III, IV, and V this past year.

Great Books III focuses on the enlightenment period. See: http://dt.pepperdine.edu/courses/greatbooks_iii/gbiii%20fall%202009/greatbooksiii_fall09_home.htm

Here is an example of student writing from this class:

http://dt.pepperdine.edu/courses/greatbooks_iii/gbiii%20fall%202009/Best%20Final%20Paper%20GBIII%20Fall%202009.pdf

Great Books IV largely deals with 19th & 20th century western thought. See: <u>http://dt.pepperdine.edu/courses/greatbooks_iv/gbiv_101/greatbooksiv_home.htm</u>

Here is an example of student writing from this class: http://dt.pepperdine.edu/courses/greatbooks_iv/gbiv_101/final%20paper.pdf

Great Books V is an Asian Great Books course and this was my second time to teach it. My first experience with the course was in 2007, when I taught it as an overload team-teaching assignment with Paul Contino. So, this time, it took quite a bit more energy, but it was very worthwhile. See: <u>http://dt.pepperdine.edu/courses/greatbooks_v/gbv_101/greatbooksv_home.htm</u>

Here is an example of student writing from this class: http://dt.pepperdine.edu/courses/greatbooks_v/gbv_101/japanpaper.pdf

Please list your goals in the area of teaching for the upcoming year:

Mathematics

For Math 102, I plan to modify the core text choice for the Calculus component. This will probably mean using a compilation of material in a reader, such as the one used at St. John's College or Thomas Aquinas College, incorporating original writing by Newton, Leibniz, and Bernoulli.

Great Books

I hope to teach the Asian Great Books course again, which will mean some minor adjustments to the reading list, possibly incorporating *The Ramayana* and Japanese Theater: Kabuki or Noh.

Humanities

I am scheduled to teach in the Buenos Aires program in summer 2011, and the plan is that I will teach the 3rd humanities GE course – Humanities 313. I will use a Great Books approach, so I will need to prepare that course in spring 2011.

Each semester I typically meet informally with 1-2 students who have completed all of the Great Books sequence. As they go through "Great Books Withdrawal", we meet every 2-3 weeks to

discuss books of their choosing, and this supplementary reading always pays great benefits to them as well as to my own deepening reading experience.

II. SCHOLARLY ACTIVITY A. Research and Presentations

Since the time of your last review, please list all publications, presentations or other scholarly products that you have produced. In this list, be certain to include published written work, unpublished manuscripts, papers read at meetings of learned societies, lectures to knowledgeable public groups, participation in colloquia or panel discussions at your own or other institutions, creative work (whether exhibited or performed outside or within the University) or appropriate clinical or consulting practice.

Presentations

Thompson, D., Miller-Perrin, C.L., Jones, T., & Tippens, D. "<u>Vocational Development of</u> <u>Students and Faculty: High Impact Programs at Pepperdine University</u>". Presented at the Council of Independent Colleges, NetVUE Conference. Indianapolis, March 14, 2009.

Miller-Perrin, C.L. & Thompson, D. "<u>What will I become? Exploring vocation and</u> <u>calling".</u>Presented at the Christian Heritage Series, Pepperdine University, September 15, 2009.

Miller-Perrin, C.L. & Thompson, D. "The development of life purpose in college students: A preliminary study on the effects of an international living and learning experience." Presented at the Annual Meeting of the Association for the Study of Higher Education, Vancouver, B.C., November 7, 2009.

Miller-Perrin, C.L & Thompson, D. "The Impact of Study Abroad on College Student Spiritual Development". Presented at the Institute on College Student Values, Florida State University, February 4, 2010.

Thompson, D. & Miller-Perrin, C.L. "The Role of Gender and Age in Vocational Calling Among University Professors". Presented at the Division 36 Mid-Year Conference of Psychology and Religion, March 27, 2010. <<u>Presentation Slides</u>>

Publications

Thompson, D. & Miller-Perrin, C.L. "<u>Vocational discernment and action: an exploratory study of</u> <u>male and female university professors</u>". Review of Religious Research, Volume 48, December 2008.

Thompson, D. & Miller-Perrin, C.L. <u>"Gender Does Matter: Barriers for Women Living Out Their</u> <u>Calling in the Academy"</u> Submitted to the Journal of Feminist Studies in Religion. July, 2009. Currently under revision for resubmission. Miller-Perrin, C.L. & Thompson, D. <u>"The Development of Vocational Calling, Identity and Faith in College Students: A Preliminary Study of the Impact of Study Abroad"</u>. Frontiers: Interdisciplinary Journal of Study Abroad. Volume XX. Fall 2010.

Consulting

Thompson, D. & Miller-Perrin, C.L. "Personal Stories of Faith and Vocation." Workshop presented to faculty and staff of North Park University, Chicago, IL, August 17, 2009.

In fall 2009, I worked with Christopher Collins, when he was still with the Convocation Office, to collect and analyze data on student development. We conducted a survey with approximately 1400 respondents.

Thompson, D. "Making the transition from Secondary to Higher Education". Guest Panelist at the Oak Park High School Faculty/Staff Session on WASC Accreditation. Oak Park, CA. November, 23, 2009.

Since January, 1995, I have been serving as a visiting scientist at HRL, LLC. (formerly known as Hughes Research Laboratory), Malibu, California. I work with the Advanced Signal Processing and Neural Network research group of the Information Science Laboratory. My current research focuses on rule extraction techniques for Artificial Neural Networks, Bayesian Network modeling, Data Mining, and Predictive Analytics.

In spring 2010, I developed the eight mathematics great books courses for <u>C.S. Lewis College</u>, scheduled to open their doors in 2012.

In spring 2010, I worked with Tim Clydesdale of The College of New Jersey to collect data on the effect of the Lilly Vocation Grant at Pepperdine University, as part of a national study he is conducting for the Lilly Endowment.

I am currently serving on the WASC visiting team for the re-accreditation of Golden Gate University in San Francisco. Our next site visit is scheduled for fall 2010.

Laurie Nelson has asked me to help her write an article for NAAHP on the medical school application process at Pepperdine University.

Please list your goals in the area of scholarship for the upcoming year:

HRL

I have a longstanding research partnership with Dr. Wojtek Przytula of HRL, and plan to continue to work with him on two projects: 1) Data Mining for security screening and 2) Bayesian Networks for automotive diagnostics. Both projects will culminate in journal article publication, probably with IEEE.

Cedars-Sinai

This past semester I assisted Paul Silka, a Seaver College alumnus, chief of Emergency Medicine at Cedars-Sinai Medical Center, in identifying a Natural Science student to conduct research at Cedars-Sinai on the effectiveness of a new enterprise software implementation at the hospital. Paul and I plan to increase this collaboration, bringing more students into Paul's research environment. In addition, Paul and I have plans to collaborate on a Bayesian Network model of patient diagnostic care at his hospital.

C.S. Lewis College http://www.cslewiscollege.org/index.html

Having developed a significant part of the curriculum for C.S. Lewis College, I have been asked to help their new faculty learn how to teach these courses. So, I will be serving as a faculty development consultant, training faculty on how one engages with the mathematics portion of a Great Books curriculum.

Office of Faith Research

Dr. Miller-Perrin and I are working in collaboration with the Center for Faith & Learning to develop an Office of Faith Research. See: <u>http://dt.pepperdine.edu/projects/office-of-faith-</u><u>research/ofr%20jan%202010.pdf</u> for more details. Dean Marrs is working with us to secure funding in the short term to get this off the ground. In the long term, we plan to write a grant proposal for submission to the following foundations: Lilly Endowment, Fetzer Institute, Pew Charitable Trust, &Templeton Foundation. We are also working collaboratively with Sandy and Helen Astin of UCLA on a national launch of our office in the next academic year.

Dr. Miller-Perrin and I will revise some of our survey and interview protocols and continue to collect data from students, staff, and faculty on their life-purpose development.

In particular, we have been invited to bring a research team to the inaugural national conference of the Network for Vocation in Undergraduate Education, which will be held in Indianapolis in March 2011. See <u>http://www.cic.edu/netvue/netvue/website/index.html</u>

Writing

I am working on writing several articles:

Calling from a World Religion Perspective

Study Abroad as the 21st Centure Rite of Passage for College Students

Tragedy of Techne'-Man: The Death of Desire and Intellect

The Twelve Senses – The Body Metaphor and Imago Dei

In addition, Dr. Miller-Perrin and I hope to use the following book prospectus to secure a publishing sponsor for a manuscript we are developing. See: <u>http://dt.pepperdine.edu/projects/das-buch/life%20purpose%20in%20the%20academy.pdf</u>

B. Professional Development Activities

Since the time of your last review, please list conferences, courses, seminars, or special study programs that you have attended.

From the presentation listing above, you can see that I attended a number of academic conferences.

Please list your professional development goals for the upcoming year:

I am on sabbatical next year and hope to make significant headway on the many projects I have outlined above. In addition, I hope to visit and learn firsthand about the discipleship process required to become a member of each of the following religious traditions: Hinduism, Islam, Judaism, Confucianism, Taoism, Buddhism, and Catholicism. I believe it will be possible to connect with a number of these religious communities within the greater Los Angeles area.

Furthermore, I have a lot of reading to catch up on and hope to devote myself to studying some 25 different books that await my attention.

III. SERVICE

A. <u>Professional and Community Service</u>

List all memberships, activities, and offices held in professional associations and societies; service to the community through religious, political, or other organizations during the 2009-2010 academic year.

I belong to IEEE, AMS, APA, APS, AIR, & ACTC. I am a member of the Newbury Park First Christian Church, where I serve in music ministry.

Please list your professional and community service goals for the upcoming year:

Now that I have moved back to the faculty, I plan to revisit my professional membership commitments in the coming year, since I am now interested in directing greater attention to Great Books organizations and affiliations.

I will continue to remain active in music ministry and I hope to be leading a small Bible study group for our church in the next year.

B. <u>Division, College, and University Service</u>

Include committees served on, administrative responsibility within division, sponsorship of student organizations, work with Faculty Organization during the 2009-2010 academic year. Be certain to list positions of leadership and document any exceptional projects on which you worked while a committee member.

As a member of the mathematics department, I work with my colleagues on curricular reform and assessment.

As a member of the Great Books faculty, I serve with my colleagues to mentor new Great Books colleagues and fight the ongoing canon wars.

I served as a spiritual mentor to one of my former students during the last semester. I plan to continue in that capacity, since it presents an effective alternative to our convocation program.

I am working with Tom Bost, interim dean of the School of Law, on developing measures that can be used to demonstrate ethical development among their law students.

Please list your division, college and university service goals for the upcoming year:

As we move forward with a new mathematics curriculum, I hope to remain actively involved in new course development.

I plan to conduct a Club Convo each semester and spiritually mentor 2-3 students.

I am open to other service opportunities as they present themselves – both with regard to my knowledge of assessment for various academic disciplines as well as gathering and analyzing data on spiritual development.

I also hope to be able to continue to serve WASC as an accreditation consultant.

Finally, as our Office of Faith Research gathers momentum, I hope to use this outlet to serve both the university and the larger academy in incorporating and acting upon spiritual goals within the college framework – both for students and faculty members. I hope to be part of the leadership in this national conversation.

IV. ADDITIONAL COMMENTS

Please feel free to provide any additional comments you wish to share with the division chairperson. These comments may be related to your contributions to the Natural Science Division and Pepperdine University during the 2009-2010 academic year; however, they may also be unrelated to you and your contributions and address any topic(s) of your choosing.