

Faculty Development Seminar

***Teaching and Research in Appropriate Technology:
Interdisciplinarity, Mindfulness, Global Learning,
and Humanitarianism***

Facilitators:

**Dr. Carl Mitcham, Colorado School of Mines
Dr. Indira Nair, Carnegie Mellon University**

**Saturday March 16, 8:30am – 4:30pm
School of Business Administration Room
2nd Floor (Room TBA)**

Sponsored by

***The Convergence of Science and Culture:
Expanding the Humanities Curriculum at UPRM***

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This seminar will be co-facilitated by Drs. Carl Mitcham and Indira Nair. Drawing from their scholarship and teaching experience, the facilitators will provide some general commentary and activities regarding interdisciplinary teaching and research in general, with an eye toward the interplay between the humanities and engineering. Topics will include:

- Appropriate Technology, Alternative Technology and Humanitarian Engineering
- Concepts of disciplines, literacies, and problem solving frameworks
- Curricular design that mingles humanities and engineering
- Faculty learning communities and interdisciplinary/team-taught courses
- Course assignments/activities and corresponding methods of assessment

This seminar is for faculty and graduate students and promises to be informative, interactive, and provocative.

Preparing for the Seminar:

- Bring and share examples of successful teaching in interdisciplinary frameworks;
- Bring questions or pieces of classwork in which they believe a discussion with colleagues would help;
- Share relevant material including assignments and assessment techniques that may be useful to others
- Read the selected Primary Readings and browse the Supplementary References

Primary Readings:

Carl Mitcham and David Muñoz, *Humanitarian Engineering*, Morgan & Claypool, 2010. Chapters 4 and 5. Available at <http://library.uprm.edu:2082/doi/pdfplus/10.2200/S00248ED1V01Y201006ETS012> [or search manually: UPRM Library >> Databases >> M >> Morgan & Claypool].

Indira Nair, Marie Norman, G. Richard Tucker and Amy Burkert, "The Challenge of Global Literacy: An Ideal Opportunity for Liberal Professional Education", *Association of American Colleges and Universities*, Winter 2012. <http://www.aacu.org/liberaleducation/le-wi12/nair.cfm>

Indira Nair, "New Scientific Literacies for an Interdependent World", *Diversity & Democracy*, 14(2), 2011. <http://www.diversityweb.org/DiversityDemocracy/vol14no2/nair.cfm>

Maria Pantazidou and Indira Nair, "Academe vs. Babel", *Organization, The Critical Journal of Organization, Theory and Practice*, 8(2): 343-350, 2001. [Attached]

Julie Thompson Klein, "A Taxonomy of Interdisciplinarity", *The Oxford Handbook of Interdisciplinarity*, 2010. Chapter 2 Excerpts: pp. 15-16, 21-28. [Attached]

Supplementary References:

European Commission, *Ethical and Regulatory Challenges to Science and Research Policy at the Global Level*, 2012. http://ec.europa.eu/research/science-society/document_library/pdf_06/ethical-and-regulatory-challenges-042012_en.pdf

European Commission, *Global Governance of Science*, 2009. http://ec.europa.eu/research/science-society/document_library/pdf_06/global-governance-020609_en.pdf

Indira Nair, "Engineering, Technology and Global Justice", Presentation at the *Multinational Colloquium on Science and Technology for Development, A Global Perspective*, held at CINVESTAV, Center for Research and Advanced Studies, Mexico City, 2010.

Marina Pantazidou and Indira Nair, "Ethic of Care: Guiding Principles for Engineering Teaching and Practice", *Journal of Engineering Education*, April 1999. [Attached]

Julie Thompson Klein, "Resources for Interdisciplinary Studies", *Change*, March/April 2006. [Attached]