In his well-known book, *The Structure of Scientific Revolutions*, Thomas Kuhn defined normal science as the way scientists do their research most of the time. His book dealt with the way scientists do research the rest of the time—during periods of upheaval. Twenty-five years later, Silvio Funtowicz and Jerome Ravetz characterized the questions that science must address in current times as requiring a new approach, one they dubbed post-normal science, where “facts are uncertain, values are in dispute, stakes high, and decisions urgent.”

Facing these difficulties, Funtowicz and Ravetz advocate an extended peer community, which would allow people who are affected by an issue to become part of the dialogue, rather than keeping the inquiry within the expert or scientific community. They also argued for a broader notion of data, to include hunches, intuitions, folklore, art and tacit knowledge.

Trained as a biological scientist and schooled in normal science, O’Hara has come to see the value of post-normal science to understand some of the most important challenges of our time. “There are issues like global warming or social rehabilitation after such disasters as Katrina where there are so many different variables where you can’t sit down and plan your efforts in a logical way. These situations require action inquiry and investigative inquiry, both normal science and post-normal science, because they are at levels of complexity beyond the scope of normal cause and effect logic,” O’Hara believes.

O’Hara is interested in how people maintain psychological balance and health in times of great social upheavals, such as the current period. Her work tries to understand the relationship between the larger cultural context and the psychological life of individuals, as a reciprocal relationship. She believes this work is essential: “Things are changing so fast and the challenges are so huge, particularly climate change, that none of the existing cultural ways of being that we’ve inherited are adequate to face our problems. So we are at a moment in history when we have to invent cultural understandings for this new world or risk go into a period of global cultural collapse.”

O’Hara works principally through the International Futures Forum (IFF), based in Edinburgh, Scotland. Working with communities in Scotland and the UK, including London and Bristol, she is part of an interdisciplinary group that combines science and social action. For example, projects on community development frames the art communities as cultural therapists, using their art as a social intervention. “This framework envisions art not only as aesthetic experience, but as the means whereby cultures to learn new values and share new ways to cope with existential challenges. It is a potent blend of art, civil society, and cultural anthropology.”

O’Hara explains that part of the research effort in which she is involved is to try to identify what supports cultural progress or cultural growth, cultural and social learning, as opposed to collapse. Cultural collapse results in anxious, blood-letting kind of behaviors, which have occurred repeatedly in history in
cultures that have undergone profound disruption of their cultural/social coherence. In a recent paper she explored the role of higher education in preparing people to thrive in the coming world.3

“We want to help communities whether large or small, maybe even global culture, find healthy ways through the current anxiety and disruption, and not collapse into genocide,” explains O’Hara.

She has co-authored a book with Graham Leicester, Ten Things to do in A Conceptual Emergency, to provide information to individuals and communities about help them face crises.

“It’s a distillation of huge amounts of information. When individuals and communities recognize their dilemmas, they can find common ground that leads to creative solutions. But if they are in denial, they often become polarized or seek scapegoats. We’ve had e-mails from all around the world that say things like, ‘I made your book into a PowerPoint and presented it in my village in Malaysia or my town in Finland.’ So there are lots of people interested in what we are doing.”


Feeling above PAR: Assessment as Research

By Joan Van Tassel

Now that program lead faculty have finished their Program Annual Reviews (PAR), when everyone is deep in reflection, it’s a good time to assess assessment. According to Brenda Shook, Associate Professor of Psychology (COLS), it is most useful to think of assessment as research.

She observed that all faculty members have disciplinary interests, and they can look to their field of expertise as they carry out assessment.

“Look to your discipline for your method of inquiry and construct assessment tools out of those conceptual categories,” said Shook.

“The standards of your profession can be your first and best guide, not just packaged assessment procedures. Look to the embedded assessment methods second. A good place to introduce your discipline-specific methods is the section for overall reflections.”

A trained scientist with expertise in statistics, Shook plays with measures of clustering and dispersion for entertainment. But she understands that not everyone has the same level of numeracy that she does. However, even when faculty members teach poetry, film criticism, or another discipline that does not focus on scientific methods, they can still turn to their own field for guidelines.

“I think there is this general belief, whether true or not, that everybody has to be quantitative. So when I talk to people in English, they say, ‘We are being forced to be quantitative and poetry isn’t quantitative.’ But they can do sound qualitative research – content analysis, for example – so the can apply analysis that is much more holistic,” she explained.

Shook makes suggestions to make the assessment job easier:

• The key to avoiding difficulties in assessment is to make sure that program learning outcomes (PLOs) are aligned properly to course learning outcomes (CLOs). Such alignment means that grades for embedded assignments and exam questions will be easily turned to assessment purposes.

• If your PLOs and CLOs align, then try using embedded assignments. That way, you will always have grades, which ensures you will have some numerical scores to work with.

• Start assessment early so you can call on your School Assessment Committee members for mentoring help.

Shook’s most surprising advice is: “No matter which methods you use, make assessment interesting to yourself!”

“No matter which methods you use, make assessment interesting to yourself!”
—Brenda Shook
Mail from Ismail

By Ismail Sebetan

Dear Colleagues,

I want to welcome you to the Faculty Scholarship Conference, which starts the day before Fall Assembly. This year, we will have a book fair, featuring all the authors and producers with their publications. We also have a full day of research presentations that includes work from all the schools. I think you will be impressed with the quality of work our colleagues have created.

The Research Council has had a busy year since last Fall Assembly. Under the leadership of Mike Maxwell, we continued the monthly NU Lecture Series, bringing in nine speakers to discuss their research and ideas. Joan Van Tassel and I organized the Student Scholarship Conference. Mohammed Amin, Robyn Hill, and I put hours of work putting the Scholarship Directory together. Connie Fajardo and Mohammed Nadeem presented workshops for new and seasoned researchers at Spring Symposium, and you will see the results of Roland Fleck’s organizing of the Book Fair at the Faculty Scholarship Conference.

We are all very pleased to encourage research at National University. We hope our efforts will inspire and motivate you to keep involved in scholarship activities and that we can support your efforts.

I show (off) the splendid student research projects to President Patricia Potter.

Grants-At-A-Glance

By: Michelle Hills

Director of Grants and Compliance
mhills@nu.edu | x8342

Office of Sponsored Programs & Research (OSPR)

There is a new emphasis on seeking grant funding to support research, professional development, and program expansion within the University.

I want to encourage all faculty and researchers to come forward with their project ideas so that my office can provide the best possible service.

The Office of Sponsored Programs sends out the Grants Hot Sheet regularly, which provides a listing of a few selected opportunities that could be of interest. However, if I know a faculty member has a specific research focus, I can look for individual opportunities that may be available to them. I see more and more opportunities wherein the funding source encourages collaborative efforts between researchers in various schools within the same university as well as consortia of different universities, Local Educational Agencies (LEAs), non-profit Community-Based Organizations (CBOs), and/or industry partners.

OSPR provides support with writing the proposal. Of course the faculty member is the subject matter expert who will be responsible for the research elements and the development of the project idea. However, we can fine-tune the application to ensure a complete response to specific requirements. We read the narrative and make sure all requirements outlined in the grant application guidelines are addressed and that the university’s internal policies with respect to budget review and approval of proposed cost sharing and faculty course release time support the research application narrative. Finally, we collaborate with other university units such as Institutional Research to put together supporting documentation for the application.

The timeline and budget development are very important aspects of any grant application. Faculty can come to us when they are in the development phase of the proposal. When they have a clear idea, and a preliminary draft of the research project, then we can start putting together the budget and begin to consider the need for other institutional processes and approvals. As a general rule, proposal proponents should plan for about a month to complete the application, starting from the time we all begin working together on it.

Please do not hesitate to contact me for assistance with any grant-related matters. I am happy to assist. Thank you.

—Michelle Hills
Dear Colleagues,

I would like to acknowledge the dedication and effort of the Research Council as it provides opportunities to promote and share faculty scholarship. Through the Research Conferences at the Fall Assembly and Spring Symposium, the Journal of Research in Innovative Teaching and this newsletter, our University’s attention to the pursuit of knowledge shines forth.

As many of you know, I too was a working adult while pursuing my advanced degrees. My learning was enriched tenfold by the research agendas of the faculty members under whom I studied. From the ideas exchanged in the classroom, brought to life by “up to the minute” nuggets from a faculty member’s scholarship, ideas for my own research projects began to grow. More important, I was able to take the understanding I learned from this blend of theory and practice to my job each day. This was an extremely valuable aspect of the educational experience that I was afforded “way back when,” as it truly is for every National University student today.

I am pleased to support the Research Council’s ongoing efforts to provide forums that recognize faculty and their pursuit of knowledge and original research. These efforts contribute to student learning, the University culture and the academic community at-large.

I offer you my best wishes as you continue your work, as well as my gratitude for your scholarly diligence.

—Eileen D. Heveron, Ph.D.
Faculty Scholarship Conference
September 8, 2009

9:00 a.m. to 10:15 a.m.  
Conference Opening & Book & Media Fair  
Salon E

Dr. Ismail M. Sebetan, Chair, Organizing Committee  
Ms. Patricia Potter, President, National University  
Dr. Eileen Heveron, Provost, National University

10:30 a.m. to 12:30 p.m.  
Oral Presentations Session  
Salon D

Dr. Ismail M. Sebetan, Chair, Organizing Committee  
Ms. Patricia Potter, President, National University  
Dr. Eileen Heveron, Provost, National University

12:30 p.m. to 1:30 p.m.  
Luncheon  
Salon D

1:30 p.m. to 3:30 p.m.  
Oral Presentations Session  
Salon D

3:30 p.m.  
Closure

BOOK & MEDIA FAIR  
Salon E

(List of Authors/Producers)
Amber Lo, SOET  
Joy Kutaka-Kennedy, SOE
Annette Cyr, COLS  
Lorraine Leavitt, SOE
Charles Tatum, COLS  
Lucinda Kramer, SOE
David Smith, SOBM  
Margot Kinberg, SOE
Frank Montesonti, COLS  
Susan Gilbert, SOE
Gary Studebaker, SOE  
Tom Pollard, COLS
Joan Van Tassel, SOMC  
William Fullerton, COLS

MORNING:  
SESSION A  
10:30 am – 12:30 p.m.  
Chair: Robyn Hill & Tom Pollard

Can you identify leadership when you see it?  
C. Kalani Beyer, School of Education, National University

The Enduring Legacy of Structured Inequality in America’s Public Schools  
Mark Edward Ryan, Department of Teacher Education, School of Education, National University

Virtual Transformation: An Online Learning Experience of Self-Care  
Gabrielle Pelicci, Department of Integrative Health & Health Coaching, School of Health and Human Services, National University

Communication in Online Learning: What Matters?  
Peter Serdyukov and *Nataliya Serdyukova, Department of Teacher Education, School of Education, National University and *Department of Math and Natural Sciences

Online Teaching Tools for Molecular Dynamics Analysis of DNA Hybridization  
Samuel A. Afuwape, School of Engineering and Technology, National University

Learning Environments for Virtual Team Success: An Analysis of Published Literature  
Barbara Lauridsen, School of Education, National University

MORNING:  
SESSION B  
10:30 am – 12:30 p.m.  
Chairs: Ismail M. Sebetan & Charles Tatum

Effects of Mindfulness Practices on Depression and Anxiety.  
Charles Tatum and Valire, Department of Psychology, National University

Improved Allogeneic Cytotoxic T-Lymphocytes Designed for Specific Immunotherapy of High Grade Brain Tumor  
Patric M. Schiltz, School of Health and Human Services, National University

Sudden Infant Death Syndrome (SIDS) or Infant Homicide?  
Ismail M. Sebetan, Forensic Sciences Program, College of letters & Sciences, National University

Sequence Analysis of Mouse-Passaged Dengue 1 Virus Strain That Induces Plasma Leakage in Mice  
Huda A. Makhluf, Department of Math & Natural Sciences, College of Letters and Sciences, National University

Responses of Persons Living with HIV Disease to a Spiritual Mantram Intervention  
Contact person  
Jill E. Bormann, Ann Kelly, Jeanne Kemppainen, Martha Shively, Patricia Bone, Wendy Belding, Sheryl Becker and Allen L. Gifford, VA San Diego Healthcare System and National University et al.
Novel Analysis of Nano materials Using Atomic Force Microscopy (AFM) and X-ray Photoelectron Spectroscopy (XPS)
Gilbert Uzo Amadi, Surface Science Group, Materials Science & Engineering Division, Lawrence Berkeley, Berkeley, CA

AFTERNOON:
SESSION A
Marina Del Rey
(3rd floor)

1:30 p.m. – 3:30 p.m.

(HALL INFORMATION)
Chairs: Consolacion Fajardo & Mohammad Nadeem

Sustaining the Latest Management Fad
George Drops, Department of Leadership and Business Administration, School of Business and Management, National University

Consolacion Fajardo and Gregory Merrill, School of Business & Management, National University

Do as I Do: Modeling professional behaviors in an online class
Peter Serdyukov and Robyn A. Hill, Department of Teacher Education, School of Education, National University

The Effect of “Open Class”- the New Model of Professional Development on Enhancing Teachers’ Pedagogical Content Knowledge
Zhonghe Wu, Department of Teacher Education, School of Education, National University

An Exploratory Study, of Qualified, Minority Educators: Perceptions and Aspirations Concerning the Superintendency in California.
Gilbert Uzo Amadi, Department of Teacher Education, School of Education, National University

Learning Management Systems Infrastructure (An Analysis of Published Literature)
Barbara Lauridsen, School of Education, National University

AFTERNOON:
SESSION B
Newport & Irvine
(1st floor)

1:30 p.m. – 3:30 p.m.

Chairs: Mohammad Amin & Joan Van Tassel

Proposal for a New Graduate Degree in Internet Engineering and Cyber technology
Mohammad Amin, Pradip Peter Dey, and Hassan Badkoobehi, School of Engineering and Technology

A Z-loop Construction using Graph Theory and Topology for Power System Under Faulted Studies
Tedja Santanoe Oepomo, School of Engineering and Technology, National University

Tom Pollard and Carl Boggs, College of Letters and Sciences, National University

“Net Cabinet of Wonder”
Don Barth, School of Media and Communication, National University

The Obama Campaign: Politics 4.0 -The Revolution Was Televised —And Microtargeted, Emailed, Blogged, Vlogged, Chatted, Texted, Tweeted, iPhoneed, & Videogamed
Joan Van Tassel, School of Media and Communication, National University

Oepomo’s Algorithm for Computing Eigenvalue in System Engineering
Tedja Santanoe Oepomo, School of Engineering and Technology, National University

Organizing Committee:
Ismail M. Sebetan, Chair; Eileen Heveron, Debra Bean, Joan Van Tassel, Michael Maxwell, Tom Pollard, Roland Fleck, Robyn A. Hill, Mohammad Amin, Mohammed Nadeem, Charles Tatum, Roxanne Eisermann, Michelle Hills, Michael Pasquarelli, Dave Hokstad.

Review Board:
Ismail M. Sebetan, Joan Van Tassel, Michael Maxwell, Mohammad Amin, Peter Serdyukov, Gary Hoban, Clifford Russell, Mohammad Amin, Don Schwartz, Igor Subbotin, Kouichi Hiraawi (Fukushima Medical College, Fukushima, Japan), Youkichi Ohno (Nippon Medical School, Tokyo, Japan).
# Fall Academic Assembly Schedule

**WEDNESDAY, SEPTEMBER 9**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00 a.m. - 11:00 a.m.</td>
<td>New Faculty Orientation Salon A</td>
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<tr>
<td>9:00 a.m. - 11:00 a.m.</td>
<td>AAC Members Salon F &amp; G</td>
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<tr>
<td>9:30 a.m. - 11:00 a.m.</td>
<td>Deans and Chairs Training Salon B &amp; C</td>
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<tr>
<td>12:00 p.m. - 2:30 p.m.</td>
<td>Chancellor’s Address &amp; Luncheon Hilton Torrey Pines</td>
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<tr>
<td>3:00 p.m. - 4:00 p.m.</td>
<td>Full-Time Faculty Meeting Salon D &amp; E</td>
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<tr>
<td>4:00 p.m. - 5:00 p.m.</td>
<td>Faculty Voting Newport/Irvine</td>
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<tr>
<td>5:30 p.m. - 7:30 p.m.</td>
<td>Reception Salon A &amp; D</td>
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**THURSDAY, SEPTEMBER 10**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:45 a.m. - 8:45 a.m.</td>
<td>Breakfast Salon A &amp; D</td>
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<tr>
<td>9:00 a.m. - 11:45 a.m.</td>
<td>Provost’s Address Salon E - H</td>
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<tr>
<td>10:15 a.m. - 10:30 a.m.</td>
<td>BREAK Foyer D &amp; E</td>
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<tr>
<td>10:30 a.m. - 11:00 a.m.</td>
<td>Educational Effectiveness Salon E - H</td>
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<tr>
<td>11:00 a.m. - 11:30 a.m.</td>
<td>NU 2015 Salon E - H</td>
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<tr>
<td>11:30 a.m. - 11:45 a.m.</td>
<td>Closing Remarks Q&amp;A Salon E - H</td>
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<tr>
<td>12:00 p.m. - 1:15 p.m.</td>
<td>Lunch and Service Awards Salon A – D</td>
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**Afternoon: School Meetings**

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>1:15 p.m. - 2:45 p.m.</td>
<td>COLS School Mtg Salon F - H</td>
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<td>SHHS School Mtg Irvine</td>
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<td></td>
<td>SOBM School Mtg LA/Rcho L Palmas</td>
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<td></td>
<td>SOE - Teacher Ed Department Mtg Salon E</td>
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<td></td>
<td>SOE - Ed Admin Department Mtg Santa Clara</td>
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<td>SOE - Counsel &amp; Psych Department Mtg Santa Barbara</td>
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<td>SOE - Special Ed Department Mtg La Jolla</td>
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<td></td>
<td>SOET School Mtg Marina De Rey</td>
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<td>SOMC School Mtg Newport</td>
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**2:45 p.m. - 3:00 p.m.**

**BREAK**

**Afternoon: Department Meetings**

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<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>2:45 p.m. - 3:00 p.m.</td>
<td>COLS - Art &amp; Humanities Department Mtg Salon G</td>
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<tr>
<td>3:00 p.m. - 4:30 p.m.</td>
<td>COLS - Math &amp; Nat Sciences Department Mtg Salon H</td>
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<td>COLS - Professional Studies Department Mtg Salon A</td>
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<td>COLS - Psychology Department Mtg Salon B</td>
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<td></td>
<td>COLS - Social Sciences Department Mtg Salon F</td>
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<tr>
<td></td>
<td>SHHS School Mtg Irvine</td>
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<td></td>
<td>SOBM - Ldship/Mgmt/Mktg Department Mtg Los Angeles</td>
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<td></td>
<td>SOBM - Acct’g/Fin/Mktg Department Mtg Rcho Las Palmas</td>
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<td>SOE - Teacher Education Department Mtg Salon E</td>
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<td>SOET School Mtg Marina Del Rey</td>
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<td>SOMC - Media Department Mtg Newport</td>
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<td>SOMC - Communication Department Mtg San Francisco</td>
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