# Faculty Senate Meeting 

Wednesday, April 25, 2012
3:30 p.m. - 5:30 p.m. - Adelbert Hall, Toepfer Room

## AGENDA

| 3:30 p.m. | Approval of Minutes from the March 22, 2012 Faculty Senate meeting | G. Chottiner |
| :---: | :---: | :---: |
|  | President's and Provost's Announcements | B. Snyder <br> B. Baeslack |
| 3:35 p.m. | Chair's Announcements | G. Chottiner |
| 3:45 p.m. | Consent Agenda I: <br> - Year End Standing Committee Reports <br> - 2012-2013 Membership Faculty Senate Standing C <br> - Advisory Panel for the Center for International Aff <br> - David Singer as the CAS representative to the 2012 | ommittees <br> airs <br> -2013 Executive Committee |
| 3:50 p.m. | Consent Agenda II: <br> - MSN-PhD in Nursing <br> - MSSA-MPH Joint Degree <br> - DMD-MPH Joint Degree <br> - ME Program Option <br> - Engineering Master in Wireless Health San Diego |  |
| 4:05 p.m. | Report from the Executive Committee | R. Dubin |
|  | Report from Secretary of the Corporation | L. Keefer |
| 4:15 p.m. | Certificate In Clinical Research | M. Snider <br> J. Spilsbury |
| 4:20 p.m. | Updates to Conflict of Interest Policy | D. Singer <br> S. Rivera |
| 4:40 p.m. | Updates to School of Nursing By-laws | D. Singer <br> L. Madigan |
| 4:45 p.m. | Electronic Attendance/Voting at Special Meetings of the Faculty Senate | D. Singer <br> R. Dubin |


| 4:55 p.m. | Annual Faculty Diversity Report | M. Mobley |
| :--- | :--- | :--- |
| 5:05 p.m. | Update Report on Effect of <br> New Healthcare Benefits | C. Gregory |

5:25 p.m. Passing the Gavel to the Chair-Elect
Thanks to the Outgoing Chair

## Faculty Senate Meeting

Wednesday, April 25, 2012
3:30-5:30 p.m. - Adelbert Hall, Toepfer Room

## Members Present

Daniel Akerib<br>Bruce Averbook<br>Bud Baeslack<br>Jessica Berg<br>Lee Blazey<br>Richard Buchanan<br>Gary Chottiner<br>Elizabeth Click<br>David Crampton<br>Chris Cullis<br>Steven Cummins<br>Lisa Damato<br>William Deal

## Members Absent

Hussein Assaf

Timothy Beal
Ronald Blanton
Matthias Buck
Mark Chance
Mary Davis
Thomas Egelhoff
Alfredo Hernandez

## Others Present

Jennifer Cimperman
Donald Feke
David Fleshler
Cleve Gilmore
Carolyn Gregory
Arnold Hirshon

Nicole Deming
Robin Dubin
Karen Farrell
Steven Fox
John Fredieu
Patricia Higgins
Christine Hudak
Quentin Jamieson
Mark Joseph
Thomas Kelley
Kurt Koenigsberger
Joseph Mansour
Laura McNally

Alan Levine
Deborah Lindell
Zheng-Rong Lu
G. Regina Nixon

John Orlock
Mary Quinn Griffin
Julie Redding
JB Silvers

Liz Madigan
Ermin Melle
Marilyn Mobley
Sue Rivera
Chuck Rozek
Ginger Saha

Ray Muzic
Dale Nance
Leena Palomo
Larry Parker
Alan Rocke
Robert Savinell
David Singer
Martin Snider
Barbara Snyder
Lee Thompson
Susan Tullai-McGuinness
Elizabeth Woyczynski
Nicholas Ziats

## Gary Stonum

Sorin Teich
George Vairaktarakis
Georgia Wiesner
David Wilson
Xin Yu

John Sideras
James Spilsbury
Christian Swol
Colleen Treml
Jeff Wolcowitz

## Call to Order

Professor Gary Chottiner, chair, Faculty Senate, called the meeting to order at 3:30 p.m.

## Approval of minutes

Hearing no objections, the minutes of the Faculty Senate meeting of March 22, 2012 were approved as submitted.

## President's announcements

President Barbara Snyder said she is in the process of appointing a new university task force to consider the university support for childcare. She has volunteers from the Faculty Senate Committee on Women Faculty and Faculty Parents of Young Children; other faculty interested in participating should contact the Office of the President. President Snyder also reported that early returns on enrollments for the first-year class for fall 2012 indicate that the class will likely be one of the strongest and best qualified classes in the university's history. There should be an increase in the number of out-of-state students, women, and minority students. She thanked the faculty for their participation in spring recruitment activities for admitted students. President Snyder reported that the capital campaign raised over $\$ 700 \mathrm{M}$ to date, and the number of donors contributing to the annual fund is ahead of last year. She has been busy notifying faculty who are the recipients of this year's faculty awards.

## Provost's announcements

Provost Bud Baeslack thanked senators for their active and productive engagement in faculty senate activities this year.

## Chair's announcements

Prof. Gary Chottiner, chair, Faculty Senate announced that the Executive Committee approved the slate of candidates to chair all the faculty senate standing committees next year. He announced that Prof. Leena Palomo was elected as the School of Dental Medicine's representative to the Faculty Senate Executive Committee. The single candidates from the other schools were elected to be representatives for their constituent faculties. Prof. David Singer, who was identified as a candidate from the College of Arts and Science for the Executive Committee after the ballot was finalized, is on the consent agenda for Senate approval. Prof. Steve Garverick was elected as chair-elect of the Faculty Senate.

Prof. Chottiner noted that the Faculty Senate would continue with the following endeavors next year: a new ad hoc committee to consider faculty appointments outside the constituent faculties; a revised name and charge for the Faculty Senate Budget Committee, with mention of the new University Budget Committee in the Faculty Handbook; an updated grievance process, and a finalized version of the graduate student leave policy. He said the Senate should continue to find ways to solicit input from the schools and the college.

## Consent Agenda I

- Year End Standing Committee Reports
- 2012-2013 Membership Faculty Senate Standing Committees
- Advisory Panel for the Center for International Affairs
- Prof. David Singer as the CAS representative to the 2012-2013 Executive Committee

The report from the Faculty Senate Committee on Undergraduate Education was pulled off the Consent Agenda, so that a report could be heard later in the meeting. Upon hearing no objections to the Consent Agenda I, faculty memberships were approved as listed.

## Consent Agenda II

The degree programs were pulled off the consent agenda for discussion and a vote on each later in the meeting.

## Report from the Executive Committee

Prof. Robin Dubin, chair-elect, Faculty Senate said that the Executive Committee gave final approval to proposals reviewed and approved by the Faculty Senate Committee on Undergraduate Education and the Committee on Graduate Studies: Enforcing Deadlines for Declaring a Major; Early Entry Master's Program Agreements with Non-U.S. Universities; and Definition of a Credit Hour. The Executive Committee also heard school reports by members of the Executive Committee representing the Case School of Engineering, the Weatherhead School of Management, and the Frances Payne Bolton School of Nursing.

## Report from Secretary of the Corporation

Ms. Libby Keefer, secretary of the corporation and general counsel said that on April 18 the Executive Committee of the Board of Trustees approved new gifts; new faculty appointments; and an honorary degree for Paul Buchheit, the CWRU alum and early innovator at Google, who will speak at Commencement. The Board also approved the name change for the Department of Genetics, and the following new degrees: the online degree at MSASS, the MPOD-India, and the SJD. The Board heard reports a finance report by John Sideras, senior vice president for finance and chief financial officer, and a reports on the capital campaign and the annual fund by Bruce Loessin, senior vice president for development and university relations.

## Report from FSCUE

Prof. Larry Parker, chair, Committee on Undergraduate Education (FSCUE), reported on plans for proposals that FSCUE may bring to the senate next year, including SAGES governance and course evaluations.

## MPH/DMD

Prof. Martin Snider, chair, Committee on Graduate Education, presented the proposal to offer a combined degree program in dental medicine and public health. Graduates will likely work in public health agencies where they will have an opportunity to address some of the oral health problems among vulnerable groups through both patient care, research and public health promotion activities. The Faculty Senate approved the proposed degree program. The proposal is attached to these meeting minutes.

## MPH/MSSA

Prof. Martin Snider, chair, Committee on Graduate Education, presented the proposal to offer a combined degree in social work and public health. Public health social work programs are some of the oldest dual degree programs in schools of social work. The program will expand career options for graduates of the Mandel School of Applied Social Science. The Faculty Senate approved the proposed degree program. The proposal is attached to these meeting minutes.

## MSN/PhD in Nursing

Prof. Martin Snider, chair, Committee on Graduate Studies, presented the proposal for the dual degree MSN/PhD program. The proposal will facilitate the completion of an MSN degree for BSN to PhD students for students who want to obtain an MSN degree along the way. The Faculty Senate approved the proposed degree program. The proposal is attached to these meeting minutes.

## BS/ME Program Option

Prof. Martin Snider, chair, Committee on Graduate Studies, said that Case School of Engineering (CSE) has recently received approval from the Ohio Board of Regents and the Higher Learning Commission of
the North Central Association to offer all Master of Science (MS) degrees and the Master of Engineering (ME) degree via distance delivery mechanisms. The proposal allows students who have received a BS degree in engineering or computer science from CSE, and who are accepted for admission into the Master of Engineering (ME) degree program within a period of 24 months after graduation, are entitled to transfer up to 6 credit hours of course work from their BS degree to their ME degree program. The Faculty Senate approved the proposed degree program. The proposal is attached to these meeting minutes.

## Engineering Masters Education in Wireless Health in San Diego

Prof. Martin Snider, chair, Committee on Graduate Studies, presented the proposal to have the departments of Electrical Engineering \& Computer Science (EECS) and Biomedical Engineering (BME) offer the Master of Science track in Wireless Health in San Diego through face-to-face instruction at that location. In its current form, the program is offered directly and via distance learning as a certificate program. In addition to Faculty Senate approval, this off-site program must be approved by a committee of the Ohio Board Regents as well as by the Higher Learning Commission. The Faculty Senate approved the proposed degree program. The proposal is attached to these meeting minutes.

## Certificate In Clinical Research

Prof. Martin Snider, chair, Committee on Graduate Studies, presented the proposal to offer a certificate in Clinical Research. Many of the students likely to enroll will be CWRU affiliated physicians who wish to strengthen their research activities; tuition waivers don't apply to certificate programs. The Executive Committee approved the certificate program for final approval by the Faculty Senate. The proposal is attached to these meeting minutes.

## Updates to Conflict of Interest Policy

Prof. David Singer, chair, Committee on By-laws, presented the revisions to the Conflict of Interest Policy located in Chapter IV of the Faculty Handbook. The revisions were drafted by Ms. Sue Rivera, associate vice president for research, and reviewed by the Outside Interests Committee, chaired by Professor Emeritus Ed Stavnezer. Revisions to these policies that are required by law or by government agency action automatically become part of these policies. Other revisions to these policies become effective upon being approved by the President, the Provost, and the Faculty Senate Executive Committee. The President and Provost expressed a desire to also have the endorsement of Faculty Senate. The Faculty Senate voted to approve the revisions. The proposed revisions are attached to these meeting minutes.

## Updates to School of Nursing By-laws

Prof. Singer, chair, Committee on By-laws, presented the proposed revision to the School of Nursing Bylaws. The proposed revisions concern a few minor changes to procedures and committee memberships, including the provision that the School of Nursing representative to the Faculty Senate Executive Committee should be an ex-officio member of the School of Nursing Executive Committee, as required by Constitution of the University Faculty. The Executive Committee voted to approve the changes. The proposed revisions are attached to these meeting minutes.

## Electronic Attendance/Voting at Special Meetings of the Faculty Senate

Prof. David Singer, chair, Faculty Senate, shared the proposed revisions to the Faculty Senate By-laws, with an addendum regarding more details procedures, from the ad hoc Committee on Electronic Attendance Option for Faculty Senate Meetings to have electronic attendance and voting available for special meetings of the Faculty Senate. The Faculty Senate voted to approve the proposed revisions to
the Faculty Senate By-laws and the addendum with more detailed procedures. The proposed revisions are attached to these meeting minutes.

## Annual Faculty Diversity Report

Ms. Marilyn Mobley, vice president inclusion, diversity and equal opportunity, presented the 2012 Diversity Report noting that the university had made notable strides in hiring more women in a few schools, and minor strides in hiring more underrepresented minorities. A faculty member requested more information about the diversity of the candidate pools. Partner hires that might assist in bringing in more women faculty often require greater funding resources in central administration. A faculty member requested that the university track the availability of such funds each year for future faculty diversity reports. The Faculty Diversity Report is attached to these meeting minutes.

## Update Report on Effect on New Healthcare Benefits

Ms. Carolyn Gregory, vice president for human resources, gave on update on the health care benefits that took effect in January 2012. She said that the average cost per employee went up about $10 \%$. Large claims and specialty drugs might produce increased costs for the university, but it seems like the university will realize a savings this year on health care costs. Ms. Gregory said that she anticipated no major changes to health care benefits for 2013, aside from standard increases in premiums, etc.

## Passing the Gavel to the Chair-Elect and Thanks to the Outgoing Chair

Prof. Chottiner passed the gavel to Prof. Dubin and wished her well as next year's chair of the Faculty Senate. Prof. Dubin thanked Prof. Chottiner for his excellent leadership as chair this year.

The meeting was adjourned at 5:30 p.m.

Approved by the Faculty Senate


Rebecca firm
Secretary of the University Faculty

| COMMITTEE | NAME | TITLE | DEPARTMENT | EXPERIENCE |
| :--- | :--- | :--- | :--- | :--- |
| Budget | J.B. Silvers | Professor | Banking \& Finance, WSOM |  |
| Bylaws | David Singer | Professor | Mathematics, CAS |  |
| Faculty Compensation | Nicholas Ziats | Associate Professor | Pathology, SOM |  |
| Faculty Personnel | Patricia Higgins 2000-2003, |  |  |  |
| Graduate Studies | Associate Professor | School of Nursing | Chair spring 2011-present |  |
| Information \& Communication <br> Technology | Ray Muzic | Associate Professor | Biochemistry, SOM | Chair 2011-present |
| Minority Affairs | Associate Professor | Radiology, SOM | Chair 2011-present |  |
| Nominating Committee | Simon Peck | Assistant Professor | Organizational Behavior, WSOM |  |
| Research | Associate Professor | Marketing and Policy Studies, <br> WSOM | Member 2011-present |  |
| Undergraduate Education | Christine Cano | Associate Professor | Modern Languages \& Literature, <br> CAS | Vice-chair 2011-present |
| Undergraduate Education <br> Vice-Chair | Mark DeGuire | Associate Professor | Materials Science \& Engineering, <br> CSE | Co-chair, Academic Standing <br> Subcommittee, 2011-present |
| University Libraries | Frank Merat | Associate Professor | Electrical Engineering and Computer <br> Science, CSE | Member 2008-present |
| Women Faculty | Karen Farrell | Assistant Professor | Physical Education \& Athletics | Chair 2011-present |

Date: April 22, 2012
To: Faculty Senate
From: J. B. Silvers, Chair, Faculty Senate Finance/Budget Committee
Re: Report on Year's Activities

The Faculty Senate Budget Committee (to be renamed the Faculty Senate Finance Committee) has focused on three main areas this year;

- Consultation with the University Budget Committee to determine an appropriate revised charge for both and the resulting distinction between the purpose and operations of the two
- Continued review of budget (primarily through reports from the UBC), monitoring of financial forecasts for the current year, introduction to investment and capital financing of the university
- Initiation of a review of our long run plan to recover from the exhaustion of our debt capacity and limitations on new debt capital.

We have met 7 times this year with the majority falling in the second semester due to scheduling problems in the fall. We have one more meeting scheduled for May to review the University budget before it goes to the Board of Trustees for approval.

The latter activity (review of final budget) helps illustrate the division of responsibilities between the Provost's UBC and the Faculty Senate Finance/Budget Committee. The UBC continues to meet weekly with the various academic and support units to review their budget assumptions and plans. This intensive involvement is far beyond the review mechanism possible with the former Faculty Senate Budget Committee. While the UBC has not run its course for the year (the budget is still under construction), we will soon be able to judge how successful this major investment of faculty and administration resource has been in rationalizing the process and producing a better budget. Next year, the UBC's second major function will come to bear as it exercises an institutional memory as to what each unit said they would do and what they actually accomplished. This follow-up function should provide the basis for a much more robust ongoing discussion between the UBC and each unit in developing the successive year's budgets.

The new Faculty Senate Finance Committee will monitor this activity on behalf of the faculty and report on its successes and failures. Again the parallel if the new FSFC is with the finance committee of a board who monitors all financial aspects of the operation but does not develop the budget itself. In the next year, we will study how to manage the debt that was built up in the last administration that now saddles us with serious limitations. That will be a subject for future reports.

## University Budget Committee Report to the Senate Budget Committee 2011-2012

The UBC meets regularly (usually weekly Fridays 9:30-11) to discuss the development of the University budget and to get input from the various stakeholders. In addition the UBC has been tasked with generating proposals regarding the distribution of undergraduate and graduate tuition and to make recommendations with respect to the timeline for the development of the budget guidelines.

The UBC met with individuals as heads of their units, generally with their finance directors, during the year. Prior to these meetings, the following request for information was sent.

1. Please attach a copy of your unit's most recent strategic plan.
2. If your plan does not already include a SWOT analysis please describe your top three strengths, weaknesses, opportunities and threats in a separate document.
3. Please submit your unit's most recent financial data - FY11 and FY12 - reflecting expense and revenue streams, and high level projections for the next three years.
4. Please provide information on any major initiative(s), including capital plans, you are planning for the next three years and attach a business plan if available. It is assumed these initiatives are reflected in the projections in \#3 and the strategic plan in \#1.
5. Please provide information on any programs and/or centers/institutes you intend to close over the next three years.
6. What financial or logistical support do you expect or hope to request from UGEN? How might they impact the achievement of your priorities?
7. What major changes, if any, have you made over the past five years and what have been the outcomes?

The individuals who met with the committee were:
Carolyn Gregory - re: the changes in medical benefits
John Wheeler \& Carolyn Gregory - re: HR activities
John Sideras \& Ermin Melle - re: 3 year projections
Dean Davis \& Chris Massoti - re: the School of Medicine budget and planning
Bob Brown - re: University debt obligations and repayment
Bruce Loessin - re: Development and the Capital Campaign
Sue Rivera - re: the Office of Research Administration
Dean Mohan Reddy \& Sharon Martin - re: Weatherhead School of Management
Lev Gonick, Lolita Hines \& Mark Henderson - re: IT
Dean Mary Kerr \& Susan Frey - re: School of Nursing
Laura Bulgarelli \& Bud Baeslack Jeff Duerk - re: Case School of Engineering
Arnold Hirshon - re: Library
John Wheeler \& Steve Campbell - re; Capital Projects, Planning, Utilities, Auxillaries
Bud Baeslack \& Rick Bishoff - re: Undergraduate Admissions
John Sideras - re: Budget timelines, past, present and future
Dean Cyrus and Tayrn Smith - re: College of Arts and Sciences (twice)
Professor Bob Miller - Vice President for Research
David Fleischler - Internationalization

Meetings with the Provost to consider progress and future planning
A number of these meetings were followed with a report prepared by the committee and sent to the Provost.

The UBC also formed a number of sub-committees to provide a recommendation on the following specific topics. The recommendations were approved by the full UBC prior to their being forwarded to the provost:

Allocation rules for Undergraduate Tuition
Allocation rules for Graduate Tuition
Development of the charges for the University Budget Committee and the Faculty Senate Budget (Finance) Committee
Development of an Integrated Planning Process
Benchmarking with "Peer Institutions"
The charges for the UBC and the revised charge for the Faculty Senate Finance Committee have been sent to the faculty senate to regularize the position of both committees for the 20122013 AY.

## 2011-2012 Faculty Senate Bylaws Committee

The Bylaws committee met approximately nine times this academic year.
Items reviewed by the committee included:
-Changes in bylaws by the Francis Payne Bolton School of Nurses (approved by the Senate) -Changes in bylaws of the College of Arts and Sciences (approved by the Senate)
-Changes in the bylaws of the School of Medicine (approved by the Senate)
-Change in rules on access to computer services proposed by Committee on Information and Communication Technology (approved by the Senate)
-Changes in bylaws of the School of Law (in progress)
-Changes in the Conflict of Interest Policy (in progress)
-Changes in the Faculty Grievance and Conciliation Policies (in progress)
-Creation of the FS Finance Committee to replace the Budget Committee (in progress)
-Policy on Electronic Attendance and Voting at Senate meetings (in progress)
Respectfully Submitted,
David Singer, Chair of Bylaws Committee

# Faculty Senate Compensation Committee 

## Committee Members:

Nicholas Ziats, Chair, SOM
Catherine Albers, CAS
Alex Jamieson, CSE
Kathryn Lavelle, CAS
Carol Liedtke, SOM
Sean McDonnell, PHED
Kathryn Mercer, LAW
MaryJo Prince-Paul, SON

Charge: The Committee on Faculty Compensation shall consult with and advise the university administration and Board of Trustees on the formation and review of university policies and procedures concerning faculty salaries and fringe benefits. The responsibilities of the committee shall include: consultation with the university administration regarding fringe benefits and the annual allocation of funds available for faculty salaries and raises; an annual review of the guidelines and policies for faculty compensation for each school and college considering issues of comparability in policies across units; review of the implementation of those guidelines and policies at each school and college; competitive analyses of faculty salaries and fringe benefits in peer universities nationwide; the effect of current salaries and fringe benefits on the ability of the university to attract and retain top faculty; and other matters of policy and equity brought to its attention by the faculty or administration. The faculty members of the Committee on Faculty Compensation shall serve as the faculty representatives on any university committee on faculty fringe benefits or compensation.

Report for 2011-2012: During the academic year of 2011-2012, the Committee on Faculty Compensation met five times. The major issues that were to be addressed for the year concerned Health Care Benefit changes, Tuition Exchange program and salary plans brought forth by the School of Medicine.

1. In the May 11, 2011 meeting, the Oswald Company, along with Jamie Ryan and Carolyn Gregory, gave a presentation to the Compensation Committee on the new Health Care Benefits program to be launched in the fall for faculty and staff. We also informed that campus-wide Forums were going to be held in the early fall. This was an information meeting based on prior focus group meetings held in the early Spring of 2011.

Action Taken: In the September 27, 2011 meeting, the Compensation Committee made recommendations to the Fringe Benefits Committee concerning: 1) the poor attendance at the Focus groups that occurred in the Spring of 2011, as well as the poor survey and results; 2) the tiering of costs based on salaries for faculty as well as staff; there should be more than one and perhaps three different tiers; 3) concerns on how this was related to faculty salary increases; 4) that the costs should go up incrementally.

Resolutions: The University agreed to change the tiers and implemented two levels, one at $\$ 50 \mathrm{~K}$ and one at $\$ 100 \mathrm{~K}$ salary levels.
2. In the October 27, 2011 meeting, the Compensation Committee heard a request from an Engineering faculty member for extending the Tuition Waiver benefit, based on the recent death of a retired faculty member. The current benefit lasts eight years and it was requested that this be extended.

Action Taken: The Committee recommended to the Faculty Senate Executive committee that the tuition benefit be extended.

Resolution: The Executive Committee approved this and forwarded this recommendation to the Provost, which agreed to extend the benefit to ten years.

The Committee also heard a report from one of its members on the Tuition Exchange program and how this program might be implemented at CWRU, by joining the Tuition Exchange Participating Institution Consortium, as well as facts concerning this program.

Action Taken: One Compensation Committee member then presented this information the Fringe Benefits Committee and the Fringe Benefits Committee suggested forming a subcommittee as well as developing a survey.

Resolution: A subcommittee of the Fringe Benefits Committee was formed, with representation from the Compensation Committee, and has met. The subcommittee deemed the survey unnecessary and it was suggested to bring in an outside person to discuss this issue. This issue has still not been resolved. In its April 18, 2012 meeting (se also \#4), the Compensation Committee further discussed this issue and expressed concerns that this issue was not moving forward in a timely manner. The Compensation Committee recommends to the Faculty Senate that this matter be brought forth for discussion and then proceed for approval to the Executive Committee and then to the Provost, with some time-line, for addressing this concern. A document on this Tuition Exchange Program is attached for information on this program.
3. In the January 12, 2012 meeting, the Compensation Committee heard a report for the Chair of the Faculty Council and another faculty member of the School of Medicine on faculty compensation salary plan, termed the XYZ plan for salary raises. This plan has been changed to use the terms Equity, Merit and Incentive plan. As this plan is still in the works, no action or recommendations were offered and will be discussed in 2012-2013 as further details are learned.
4. In the April 18 meeting, all of the previous issues were further discussed and updates presented from various members. Also discussed were suggestions for the next academic year including the need to: 1) readdress the Benefits issues based on the upcoming U.S. Supreme Court hearings on Health Care in June, 2012; 2) Tuition Exchange Program (see recommendations in \#2) and 3) readdress Gender Equity issues
(per Lynn Singer) as this program is defunct due to loss of a CWRU person responsible for obtaining data. This issue was deemed important and it was recommended that this matter be addressed.

It was also noted that faculty serving on the Compensation Committee also attended or participated in discussion with other University committees throughout the year including the Fringe Benefits Committee, Budget/Finance Committee and Personnel Committee with reports back to the Compensation Committee. All were thanked for their service to the Compensation Committee and the University, especially those having served their terms.

Respectively submitted,
Nicholas P. Ziats, Ph.D.
Chair of the Faculty Senate Compensation Committee
April 18, 2012



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- Uptown
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## Undergraduate Admission : Undergraduate Costs

" Request informaion 2011-2012 Typical First-year Budget

Fall Semester Spring Semester Total

| Tuition | $\$ 19,380$ | $\$ 19,380$ | $\$ 38,760$ |
| ---: | :--- | :--- | :--- |
| Estimated Room and Board $\$ 5,970$ | $\$ 5,970$ | $\$ 11,940$ |  |
| Fees | $\$ 180$ | $\$ 180$ | $\$ 360$ |
| Matriculation Fee | $\$ 450$ | $\$ 0$ | $\$ 450$ |
| Books | $\$ 588$ | $\$ 587$ | $\$ 1175$ |
| Personal Expenses | $\$ 675$ | $\$ 675$ | $\$ 1,350$ |
| Transportation | $\$ 275$ | $\$ 275$ | $\$ 550$ |
| Total Cost | $\$ 27,538$ | $\$ 27,087$ | $\$ 54,585$ |

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# Tuition Exchange Participating Institutions 

September 19, 2011

| Alabama | Connecticut |
| :---: | :---: |
| Birmingham-Southern College | Connecticut College |
| Huntingdon College | Fairfield University |
| Judson College | Lyme Academy College of Fine Arts |
| Samford University | Mitchell College |
| Talladega College | Quinnipiac University |
|  | Sacred Heart University |
|  | Saint Joseph College |
| Alaska | University of Bridgeport |
| Alaska Pacific University | University of Hartford |
|  | University of New Haven |
| Arizona |  |
| Grand Canyon University | Delaware |
| Prescott College | University of Delaware |
|  | Wesley College . |
| Arkansas | Wilmington University |
| Harding University |  |
| Hendrix College | District of Columbia |
| Lyon College | American University |
| Ouachita Baptist University | Catholic University of America, The |
| University of the Ozarks | George Washington University Trinity University |
| California |  |
| Azusa Pacific University | Florida |
| Biola University | Barry University |
| California Baptist University | Eckerd College |
| California Lutheran University | Edward Waters College |
| Chapman University | Embry-Riddle Aeronautical University |
| Concordia University | Flagler College |
| Dominican University of California | Florida Institute of Technology |
| Fresno Pacific University | Florida Southern College |
| Loyola Marymount University | Jacksonville University |
| Marymount College | Johnson \& Wales University |
| Mills College | Lynn University |
| Mount Saint Mary's College | Palm Beach Atlantic University |
| Occidental College | Saint Leo University |
| Pepperdine University | St. Thomas University |
| Saint Mary's College of California | Stetson University |
| Santa Clara University | University of Florida |
| Simpson University | University of North Florida |
| Southwestern Law School | University of Tampa |
| University of La Verne |  |
| University of Redlands |  |
| University of San Diego. | Georgia |
| University of San Francisco | Agnes Scott College |
| University of Southern California | Andrew College |
| University of the Pacific | Berry College |
| Vanguard University of Southern | Brenau University |
| Westmont College | Covenant College |
| Whittier College | Emmanuel College |
|  | LaGrange College |
|  | Mercer University |
| Colorado | Oglethorpe University |
| Johnson \& Wales University | Shorter University |
| Regis University | Wesleyan College |
|  | Young Harris College |


| Idaho |
| :--- |
| College of Idaho (The) |
| Illinois |
| Augustana College |
| Aurora University |
| Benedictine University |
| Bradley University |
| Columbia College Chicago |
| Concordia University |
| DePaul University |
| Dominican University |
| Elmhurst College |
| Illinois College |
| Illinois Institute of Technology |
| John Marshall Law School |
| Judson University |
| Kendall College |
| Knox College |
| Lewis University |
| MacMurray College |
| McKendree University |
| Millikin University |
| Monmouth College |
| National-Louis University |
| North Central College |
| North Park University |
| Northern Baptist Theological Seminary |
| Quincy University |
| Robert Morris University Illinois |
| Rockford College |
| Roosevelt University |
| Saint Xavier University |
| School of the Art Institute of Chicago |
| Trinity International University |
| University of St. Francis |
| Indiana |
| Anderson University |
| Butler University |
| Calumet College of Saint Joseph |
| DePauw University |
| Franklin College |
| Hanover College |
| Holy Cross College |
| Huntington University |
| Indiana Institute of Technology |
| Manchester College |
| Marian University |
| Oakland City University |
| Rose-Hulman Institute of Technology |
| Saint Joseph's College |
| Saint Mary-of-the-Woods College |
| Trine University |
| University of Evansville |
| University of of Saianapolis Francis |

# Tuition Exchange Participating Institutions 

| Valparaiso University Wabash College |  | Aquinas College |
| :---: | :---: | :---: |
|  | Maine | Hillsdale College |
|  | Saint Joseph's College of Maine | Lawrence Technological University |
|  | University of New England | Madonna University |
| Iowa |  | Marygrove College |
| AIB College of Business |  | Northwood University |
| Buena Vista University | Maryland | Olivet College |
| Central College | Hood College | Western Theological Seminary |
| Clarke University | Loyola University Maryland |  |
| Coe College | Maryland Institute College of Art | Minnesota |
| Cornell College | McDaniel College | Augsburg College |
| Drake University | Mount Saint Mary's University | Bethel University |
| Graceland University | Notre Dame of Maryland University | College of St. Benedict |
| Grand View University | St. Mary's College of Maryland | College of St. Scholastica |
| Iowa Wesleyan College | Stevenson University | Concordia College at Moorhead |
| Loras College | The Tuition Exchange | Crown College |
| Luther College | Washington College | Gustavus Adolphus College |
| Mercy College of Health Sciences |  | Hamline University |
| Morningside College |  | Minneapolis C. of Art \& Design |
| Mount Mercy University | Massachusetts | Northwestern College |
| Simpson College | Anna Maria College | Saint Mary's University |
| St. Ambrose University | Art Institute of Boston at Lesley, The | St. Catherine University |
| University of Dubuque | Assumption College | St. John's University |
| Upper Iowa University | Bard College at Simon's Rock |  |
| Waldorf College | Bay Path College |  |
| Wartburg College | Becker College | Mississippi |
| William Penn University | Boston University Clark University | Belhaven University Millsaps College Mississippi College |
|  |  |  |
|  | Curry College |  |
| Kansas | Dean CollegeElms College |  |
| Baker University |  | Missouri |
| Benedictine College | Emerson College | Missouri . |
| Friends University | Emmanuel College | Columbia College |
| Kansas Wesleyan University | Endicott College | Culver-Stockton College |
| Ottawa University | Hampshire College | Drury University |
| Southwestern College | Lasell College | Kansas City Art Institute Maryville University |
|  | Lesley University | Maryville University <br> Missouri Baptist University |
| Kentucky | Mount Holyoke College | Northwest Missouri State University |
| Bellarmine University | Mount Ida College | Park University |
| Berea College | National Graduate School of Quality | Rockhurst University |
| Centre College | Newbury College | Saint Louis University |
| Georgetown College | Nichols College | Southwest Baptist University |
| Kentucky State University | Pine Manor College | Stephens College |
| Kentucky Wesleyan College Lindsey Wilson College | Regis College | Webster University |
| Lindsey Wilson College Midway College | Simmons College | Westminster College |
| Midway College Spalding University | Smith College | William Jewell College |
| Spalding University St. Catharine University | Springfield College | Winiam Woods University |
| Thomas More College | Stonehill College <br> Suffolk University |  |
| Transylvania University | Western New England University | Montana |
| Union College | . | Carroll College |
| University of the Cumberlands (The) | Wheelock College | Rocky Mountain College University of Great Falls |
| Louisiana |  |  |
| Centenary College | Michigan | Nebraska |
| Tulane University | Adrian College Alma College | College of Saint Mary |
|  |  | Concordia University Creighton University |

# Tuition Exchange Participating Institutions 

September 19, 2011

Doane
Hasting
Nebrask
Nebrask
Nevada
Sierra Nevada College

New Hampshire
Antioch University New England
Chester College of New England
Colby-Sawyer College
Daniel Webster College
Franklin Pierce University
New England College
Saint Anselm College
University of New Hampshire School of

New Jersey
Bloomfield College
Caldwell College
Centenary College
College of Saint Elizabeth (The)
Drew University
Fairleigh Dickinson University
Georgian Court University
Monmouth University
Rider University
Saint Peter's College
Seton Hall University
Stevens Institute of Technology

New Mexico
College of Santa Fe

New York
Adelphi University
Albany Law School
Alfred University
Bard College
Canisius College
Cazenovia College
Clarkson University
College of Mount Saint Vincent
College of New Rochelle
College of Saint Rose
Concordia College
Daemen College
Dominican College of Blauvelt
D'Youville College
Elmira College
Fordham University
Hartwick College
Hilbert College
Hobart and William Smith Colleges
Hofstra University

Houghton College
Iona College
Keuka College
Le Moyne College
Long Island University, BrooklynCampus
Long Island University, CW Post
Manhattan College
Marymount Manhattan College
Medaille College
Mercy College
Molloy College
Mount Saint Mary College
Nazareth College
New York Institute of Technology
Niagara University
Nyack College
Pace University
Paul Smith's College
Polytechnic Institute of NYU
Pratt Institute
Roberts Wesleyan College
Rochester Inst. of Technology
Russell Sage College
Sarah Lawrence College
Skidmore College
St. Bonaventure University
St. Francis College
St. John Fisher College
St. John's University
St. Joseph's College
St. Lawrence University
St. Thomas Aquinas College
Syracuse University
Trocaire College
Union Graduate College
Utica College
Vaughn College
Villa Maria College
Wagner College
Wells College

North Carolina
Barton College
Belmont Abbey College
Campbell University
Catawba College
Chowan University
Elon University
Gardner-Webb University
Greensboro College
Guilford College
High Point University
Johnson \& Wales University
Lees-McRae College
Lenoir-Rhyne University
Mars Hill College
Meredith College
Methodist University
Mid-Atlantic Christian University

North Carolina Wesleyan College
Peace College
Pfeiffer University
Queens University of Charlotte
Salem Academy \& College
St. Andrews Presbyterian College
Warren Wilson College
Wingate University

Ohio
Antioch University Midwest
Ashland University
Baldwin-Wallace College
Bluffton University
Capital University
Cleveland Institute of Art
College of Mount St. Joseph
College of Wooster (The)
Columbus College of Art \& Design
Defiance College
Franklin University
Heidelberg University
Hiram College
John Carroll University
Lourdes College
Malone University
Marietta College
Mercy College of Northwest Ohio
Mount Vernon Nazarene University
Muskingum College
Notre Dame College
Ohio Dominican University
Ohio Northern University
Ohio Wesleyan University
Otterbein University
Tiffin University
University of Dayton
University of Findlay
University of Mount Union
Ursuline College
Walsh University
Wilmington College
Wittenberg University
Xavier University

Oklahoma
Oklahoma City University
University of Tulsa

Oregon
Concordia University
George Fox University
Lewis \& Clark College
Linfield College
Marylhurst University
Pacific University
University of Portland

# Tuition Exchange Participating Institutions 

Warner Pacific College
Willamette University

Pennsylvania
Albright College
Allegheny College
Alvernia University
Arcadia University
Bucknell University
Cabrini College
Carlow University
Cedar Crest College
Chatham University
Chestnut Hill College
Delaware Valley College
DeSales University
Dickinson College
Drexel University
Duquesne University
Eastern University
Elizabethtown College
Franklin \& Marshall College
Gannon University
Geneva College
Gettysburg College
Grove City College
Gwynedd-Mercy College
Holy Family University
Immaculata University
Juniata College
Keystone College
King's College
Lafayette College
LaSalle University
Lebanon Valley College
Lycoming College
Marywood University
Mercyhurst College
Misericordia Universiity
Moore College of Art and Design
Moravian College
Mount Aloysius College
Muhlenberg College
Neumann University
Peirce College
Philadelphia University
Point Park University
Robert Morris University
Rosemont College
Saint Francis University
Saint Joseph's University
Saint Vincent College
Seton Hill University
Susquehanna University
Thiel College
University of Pittsburgh
University of Scranton
University of the Arts, The
University of the Sciences in Philadelphia

September 19, 2011
Ursinus College
Villanova University
Washington \& Jefferson College
Waynesburg University
Westminster College
Widener University
Wilkes University
Wilson College
York College

Rhode Island
Bryant University
Johnson \& Wales University
Providence College
Roger Williams University
Salve Regina University

South Carolina
Anderson University
Charleston Southern University
Coker College
Columbia College
Converse College
Erskine College
Furman University
Limestone College
Newberry College
North Greenville University
Presbyterian College
Southern Wesleyan University
Wofford College

South Dakota
Mount Marty College
University of Sioux Falls

## Tennessee

Belmont University
Bryan College
Carson-Newman College
Christian Brothers University
Emmanuel Christian Seminary
Johnson Bible College
Lee University
Lincoln Memorial University
Martin Methodist College
Maryville College
Memphis College of Art
Milligan College
Union University
University of the South

Texas
Austin College
Baylor University
Concordia University Texas

Criswell College
Dallas Baptist University
East Texas Baptist University
Hardin-Simmons University
Houston Baptist University
Howard Payne University
McMurry University
Schreiner University
Southwestern University
St. Edward's University
St. Mary's University
Texas Christian University
Texas Lutheran University
Texas Wesleyan University
Trinity University
University of Dallas
University of Mary Hardin-Baylor
University of St. Thomas
University of the Incarnate Word

United Arab Emirates
American University Sharjah

United Kingdom
Richmond University

Utah
Westminster College of Salt Lake City

Vermont
Bennington College
Champlain College
College of St. Joseph
Goddard College
Green Mountain College
Landmark College
Marlboro College
Norwich University
Saint Michael's College

Virginia
Appalachian School of Law
Bluefield College
Bridgewater College
Emory \& Henry College
Ferrum College
Hampden-Sydney College
Hollins University
Jefferson College of Health Sciences
Lynchburg College
Mary Baldwin College
Marymount University
Randolph College
Randolph-Macon College
Regent University
Roanoke College

# Tuition Exchange Participating Institutions 

September 19, 2011

Shenandoah University
Sweet Briar College
University of Richmond
Virginia Intermont College
Virginia Wesleyan College

Washington
Cornish College of the Arts
Gonzaga University
Heritage University
Pacific Lutheran University
Saint Martin's University
Seattle University
University of Puget Sound
Whitworth University

West Virginia
Bethany College
Davis and Elkins College
Mountain State University
University of Charleston
West Virginia Wesleyan College
Wheeling Jesuit University

Wisconsin

Alverno College<br>Beloit College<br>Cardinal Stritch University<br>Carroll University<br>Carthage College<br>Columbia College of Nursing<br>Concordia University Wisconsin<br>Lawrence University<br>Marian University<br>Northland College<br>Ripon College<br>St. Norbert College<br>Viterbo University



## « Back

ASSOCIATED COLLEGES OF THE MIDNEST

## ACM History

Founded in 1958, the Associated Colleges of the Midwest stands proudly as one of the oldest and most successful American higher-education consortia. With roots reaching back to 1920 in the Midwest Collegiate Athletic Conference and to 1951 in the Midwest Faculty Conference, the ACM can claim an extraordinary record of collaboration amongst its member colleges. With the ten founding members (Beloit, Lawrence, and Ripon in Wisconsin; Coe, Cornell, and Grinnell in Iowa; Carleton and St. Olaf ir Minnesota; Knox and Monmouth in Illinois) still actively engaged, and strengthened by new members Macalester and Colorado Colleges in 1967, Lake Forest College in 1974, the College of the University of Chicago from 1988 through 2008, and Luther College in 2009, the ACM has shown remarkable stability and vitality over 50 years of profound change in American higher education.

The founders of ACM, united in a common commitment to excellent liberal arts education, identified three main purposes to support the members through joint action:

- To advance the interests and to contribute to the educational effectiveness of the member colleges of the Association;
- To develop and assist the member colleges in improving the efficiency of their operations both administrative and cultural;
- To assist the member colleges in developing additional sources of revenue.

President Miller Upton of Beloit College in 1958 summarized the collaborative goals of ACM in saying that the new association should "provide individual colleges through collective action" with assistance they could not provide individually; ACM should help the member colleges' president, faculties, and trustees be better able to "appraise their existing educational efforts, stimulate them into awareness of certain conditions ... and encourage experimentation in meeting the demanding problems of the future." Upton further wrote that the ACM should "help identify areas where cooperative college actior might be undertaken with profit and serve as a creative stimulus to the individual colleges in planning for their separate missions." That common purpose and commitment to ACM as a "creative stimulus" remains vital after 50 years.

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# Faculty Senate Graduate Studies Committee Annual Report 2011-2012 

## Committee Membership:

## MEMBERS

MARTIN SNIDER, SOM, chair
LISA DAMATO, SON
YIPING HAN, SODM
EDITH LERNER, SOM
ROGER MARCHANT, CSE
CHARLES ROSENBLATT, CAS
ELIZABETH TRACY, MSASS
JAMES VAN ORMAN, CAS
GARY WNEK, CSE

TERM
2011-2014
2010-2013
2009-2012
2011-2014
2009-2012
2011-2014
2010-2013
2010-2013
2009-2012
ex officio
SUE RIVERA
Associate Vice President for Research
CHUCK ROZEK
Dean, Graduate Studies
Graduate Students (3)
YOTAM BLECH-HERMONI 2011-2012
QUENTIN JAMIESON 2011-2012
BETH RODKEY 2011-2012
Professional School Senator
JULIE REDDING 2011-2012
Post-Doctoral Student
JESSICA BERTHIAUME
2011-2012

The committee held 8 meetings this year, approximately one per month. The committee dealt with three types of business this year: i) new or revised graduate programs, ii) resolutions, and iii) requests for joint graduate degrees.

## Degree Programs

The committee considered 10 proposals for new or revised graduate programs. All of these were approved by the committee. Four programs (*) have been approved by the Faculty Senate. The others have been approved by the Faculty Senate Executive Committee and will be presented to the Senate at the April 2012 meeting.

The proposals fall into three categories:
New degrees/programs
Joint programs that combine existing degrees
Offering of existing degrees online or at remote sites

The committee has noted a significant increase in the last category, indicating an increase in entrepreneurial offerings that will extend the reach of the university and increase our enrollment.

## New degrees/programs

Doctor of Juridical Science (SJD)*
Certificate in Clinical Research
Joint programs that combine existing degrees
Masters of Engineering/BS in Engineering
MSN/PhD in Nursing
MPH/MSSA joint degree
MPH/MPH joint degree

## Offering of existing degrees online or at remote sites

Master of Science in Anesthesia, satellite program in Washington, DC*
Masters of Positive Organizational Development, satellite program in India*
MS in Wireless Health, in San Diego
Online delivery of the MSSA degree*

## Resolutions

The committee considered the following resolutions during the year.

1. Course Repeat Policy. A policy allowing graduate students to repeat some courses under a restricted set of circumstances was approved by the committee and subsequently approved by the Faculty Senate.
2. Definition of a Credit Hour. This resolution was initiated by FSCUE to meet a requirement of the U.S. Department of Education. Our committee worked with FSCUE to draft a resolution, which was approved by both committees and has been approved by the Faculty Senate Executive Committee.
3. Early Entry Masters Programs. FSCUE initiated a resolution to create standards and procedures for Early Entry Masters Programs, in which a student from another university will pursue coursework to CWRU to complete the undergraduate degree and to earn a Masters degree. Working with FSCUE, we drafted a resolution that sets procedures for admissions and for fulfilling the requirements of the undergraduate degree. This resolution has been approved by both committees and sent to the Faculty Senate.
4. Leave Policy for Graduate Students. The university does not currently have a policy that regulates paid leave for graduate students whose effort toward a degree is supported by a stipend. Beginning with a draft from a working group in the medical school, we drafted a policy that provides vacation, sick leave, and parental leave. Drafts of this document were reviewed by the Faculty Senate Research Committee, the University Attorney's office, and leadership of several of the schools. A resolution was approved by our committee. However, when the resolution was presented to the Executive Committee, it was agreed that the resolution would need further revision to accommodate comments from deans and from the Executive Committee. This item will be on the agenda of the Graduate Studies Committee next year.

## Petitions

The committee received two petitions for joint graduate degrees. Both were approved. They are:

1. Petition from Princeton Thompson to receive a dual degree in law (JD) and French (MA).
2. Petition from Tony Yanick to receive a Master of Arts in Cognitive Approaches to World Literature that combines Cognitive Linguistics and World Literature.

## Items In Progress

A UCITE group on graduate mentoring forwarded a series of proposals to improve graduate mentoring was presented to the committee by Mano Singham, director of UCITE. Discussion of these proposals is ongoing and will carry into next year.

The committee was charged with looking at the University academic calendar that is published by the registrar to see if it reflects the calendar used in teaching graduate students. Action on this item is expected by the end of the academic year.

Submitted April 18, 2012
Martin Snider, Committee Chair

## FSCUE ACTIVITIES <br> 2011-2012

## Actions Completed

- Recommended approval of the Plan for Internationalization
- Approved SAGES University Seminars eligible to be electives for majors and minors
- Approved a process for concentrations to be recorded on transcripts
- Revised study abroad procedures to provide flexibility and to encourage more study abroad
- Improved the charge of the FSCUE Subcommittee on Student Life to provide a more positive and active tone
- Approved a one year delay of SAT/ACT requirement (to fall 2013) for international students applying for the $2+2$ program
-Revised SAGES distribution requirements so that undergraduates will take one SAGES course from each of the natural world, social world and symbolic world topic areas; the "Life of the Mind" category (used for first seminars) was eliminated
- Added all four UPF schools to the FSCUE email list to improve communications
- Approved a policy regarding enforcement of deadline for undergraduate major declaration - must declare before registration for fifth semester
- Approved coursework credit for freshman and sophomore ROTC courses
- Established a definition of a credit hour
- Reviewed early entry Master's Degree for international students
- Applicants will meet all requirements of undergraduate transfer students
- Admitting program responsible for establishing all courses for successful completion of undergraduate requirements


## Actions Currently Under Consideration

- Establishment of a SAGES governance process
- Review course evaluations - philosophy, process and student participation rates
- Review policies on grades and credits for repeated courses
- Review policy on GPA calculations for students returning after separation
- Consider time frames for responses to FSCUE and its subcommittees to improve communications


## Additional Activities of FSCUE

- New orientation procedures; discussed and advised the Office of Admissions
- Advised the Office of the Provost on the Wittke Award and increased encouragement of teaching excellence
- Conducted student life surveys on improvements in student life and university counseling wait times
- Evaluated integrated BS/ME program with the Senate Graduate Studies Committee for CSE
- Provided advice to and support for the Office of the Provost to establish a new department to house Army ROTC instructors as special faculty
- FSCUE subcommittees perform ongoing functions related to undergraduate education such as taking action on academic records at the end of each semester, reviewing and approving all course and program actions, making certain admissions and scholarship decisions and much more.


# Faculty Senate Committee on Information and Communication Technology Report to Faculty Senate Executive Committee <br> 2012-04-05 

## Function

The function of the Faculty Senate Committee on Information and Communication Technology (FSCICT), as defined in its charge in the Faculty Senate handbook, is to be an advisory body. As such, the FSCICT works closely with senior leadership of Information Technology Services (ITS) and represents the interests of the faculty.

## Governance and ITS-Related Committees

ITS is headed by Lev Gonick who has the titles Vice President of Information Technology Services and Chief Information Officer. ITS supports all aspects of academic and enterprise networking, computation, and communication technology.

For more than a year, ITS has been defining and establishing a system of shared governance. In addition to the established Executive Steering Committee and FSCICT, a number of new advisory bodies have been formed to represent various groups that are supported by ITS. These include the Priorities Review Board (PRB), Information Technology and Services Planning Committee (ITSPAC) with its subcommittees, Advisory Committee on Research Computing, and Strategic Planning Committees. The FSCICT chair is a member of the PRB. All FSCICT members are encouraged to participate in ITSPAC and some of the FSCICT members serve on the latter groups. In addition, many other faculty members are members of the various Strategic Planning Workgroups as noted in Appendix IV.

FSCICT is a faculty-lead advisory body with collaboration with administration. Mr. Gonick is ex officio member of FSCICT and a valuable contributor. Throughout the year, various ITS senior leadership team members have been able to join various FSCICT meetings.

## FSCICT Activities

The FSCICT meets monthly as noted on the FSCICT homepage: $\underline{\text { http://fscict.case.edu. Members, guests, }}$ and consultants of the FSCICT are listed in Appendix I of this document. Attendance is listed in the Minutes for each meeting. Lora Veselsky, ITS, helps with administrative tasks in setting up FSCICT meetings.

In its September meeting, the first of the academic year, Raymond Muzic, the FSCICT chair, introduced the FSCICT website created to be a portal for communication and an archive for future reference. Meeting agenda, Minutes, membership, and other resources are available on this website. To promote engagement, FSCICT members agreed to take turns being meeting recorders and writing the Minutes. FSCICT members were encouraged to act as representatives to their constituents, establishing bidirectional communication. Also, it was observed that most, but not all schools were represented on the FSCICT and this was brought to the attention of Gary Chottnier, the Faculty Senate Chair. An attempt was made to add people representing Dental Medicine and Law. Subsequent invitations were declined.

During the October meeting Tom Siu, Chief Security Officer, lead discussions on cybersecurity, status and initiatives. Also, at Lev Gonik's request, the FSCICT began discussions on a policy for ITS support for retired (non-emeritus) faculty members. Lev committed that emeritus faculty members receive the
same ITS support and services as regular faculty members. Mark Henderson, Associate Vice President for ITS and Chief Operation Officer/ITS, also participated in the discussion as did Tom Mortimer, an emeritus faculty member. Tom was extremely satisfied with the level of ITS support he was receiving. In spillover discussion Lev Gonick and Ray Muzic proposed that Faculty Senate might consider using Adobe Connect to facilitate participation by those unable to be physically present.

During the November meeting Jeff Gumpf, Chief IT Architect, reviewed cloud computing and moving Enterprise Resource Planning (ERP), back office function, to the cloud. We also continued discussion on policy for ITS support for retired faculty and were briefed by Ray Muzic on his presentation of the policy to the Faculty Senate Committee on University Libraries. Ray Muzic briefed FSCICT regarding on-going discussions concerning establishing an electronic attendance option (teleconference) for Faculty Senate meetings. The FSCICT meeting ended with an optional demonstration of the Visualization Wall within Kelvin Smith Library.

During the December meeting Colleen Nagy - Senior Director, Strategic Initiatives, Policy and Portfolio Management - joined the FSCICT to describe the ITS priority review process and the slate of current and queued-up projects. (The slides she presented are posted on the FSCICT website and included as Appendix II.) Also, the FSCICT largely finalized the discussion on the policy concerning ITS support for retired faculty. Subsequently a draft was created, an email vote was taken confirming support, and the document was sent to the chair of the Faculty Senate Committee on University Libraries and to the chair of the Faculty Senate. At his suggestion, Ray Muzic polished its language and submitted if for consideration at the January Faculty Senate Executive Committee. The result is attached as Appendix III.

In January FSCICT meet immediately before the FS Executive Committee. Randall Toy presented a Graduate Student Senate proposal for university-wide seminar schedule. We reviewed this FSCICT report to the Executive Committee. We spoke about faculty-ITS collaborations - highlighted by Mark Griswold presenting a project with Roger Bielefeld, Chet Ramey, and Dennis Risen. Also, we very briefly spoke about ITS priorities and then enumerated the type of things we want to cover in future FSCICT meetings.

At the Faculty Executive Committee, FSCICT was invited to present at the January Faculty Senate meeting ( 26 Jan 2012). President Snyder and the group suggested that Lev Gonick, Mark Henderson, and Tom Siu also participate. Pursuant to this, Ray Muzic contacted Lev Gonick and his team regarding preparations.

January 26, 2012 Ray Muzic (FSCICT Chair) and Mark Henderson (Associate Vice President \& Chief Operating Officer/ITS) made a joint presentation to the Faculty Senate reviewing the items reported in the present report. Slides and other presentation materials are a posted on the FSCICT website.

In February FSCICT meeting was conducted in two locations to demo telepresence capability available on campus. Half the group met in the Active Collaboration Room in KSL and half in the Telepresence Room in Tomlinson. began with a discussion of the technology, how it is used, and how faculty can access it on campus. Mark Henderson led the discussion and provided an overview of the systems. He noted this technology is becoming pervasive at companies as it can save travel expenses and productivity losses due to travel time. Getting factors such as lighting and sound are essential for a good experience. These along with the high quality of the video and approximately life-size appearance of people on the screen contribute to an immersive experience. During chair's announcements we had brief discussion about faculty member's concerns about SIS and FSCICT members continuing to serve the
next academic year. We followed up on Graduate Student Senate's request for a university-wide seminar calendar: Randall Toy (GSS) and Roger Bielefeld (ITS) were making progress. Ray announced ITS is soliciting faculty comments on the ITS strategic plan. Due to lack of time and scheduling confusion, we deferred the discussion on email privacy, best practices, etc... until the next FSCICT meeting.

On March 4, 2012 the Faculty Senate approved FSCICT's proposed amendment to the Faculty Handbook concerning email support for faculty members who leave the university or retire.

In March Ray Muzic and Christine Hudak briefed FSCICT on the Senate's direction on an electronic attendance option. Randall Toy briefed us on the progress being made on the GSS initiative for a university-wide seminar calendar and demoed the webpage. Peter Poulous (Case Senior Counsel and Chief Litigation Counsel) led a discussion of email privacy issues and best-practices as well as contractual obligations with Google. Some key points are that 1) employee (including faculty) Case Google Apps email is accessible by ITS but this option is rarely exercised, e.g. legal order, high-level approval, probable cause; 2) privacy and security is higher with Case Google Apps email than with general Gmail; 3) employees should do personal email using personal email accounts. FSCICT thought access to the full Google contract might be difficult to interpret and decided an interpretation and summary report an on this topic would be helpful. Peter agreed to get together with Tom Siu on this. FSCICT reviewed a ITS budget and a recent challenge - a budget cut that flowed through UGen. This is highly concerning since the cut comes on top of cuts in preceding years and demand for IT is only increasing. For example, students are coming to campus with multiple wireless devices.

This EOY report is due Wed Apr 18, 2011 which is before the last regularly scheduled FSCICT meeting for the AY. Details for that meeting will be added this report and it will be published to the FSCICT website.

## State of ITS

Case Western Reserve University enjoys a healthy information technology infrastructure and support. Through the course of these meetings, faculty have come to appreciate the expertise, responsiveness, transparency, efficiency, and forward-thinking of ITS. ITS has been moving away from a model of buying "blinking lights" and toward managing relationships with vendors. As is evidenced from success of Google, Amazon, and the like, many aspects of IT are economies of scale so it is sometimes most efficient to seek services from the outside. An example success story is migration from email being hosted on hardware at Case to email being hosted in the cloud by Google.

With the shift away from ITS personnel managing hardware and local application software, going forward, Case may want to capitalize on the ITS infrastructure and personnel to the mutual benefit of ITS personnel and members of its faculty. This could be done by promoting collaborations. Example success stories were highlighted at ITSPAC. Full details are given in ITSPAC Minutes of December 7, 2011 which is available on-line https://sites.google.com/a/case.edu/it-governance-2012a/home/teams/itspac/itspac-2012-meeting-materials/december-7-2011 and summarized here.

Mark Griswold, Radiology: Uses high performance computing in medical imaging. Collaborating with Roger Bielefeld, Dennis Risen, and Chet Ramey, they are setting up a GPU cluster, housed by ITS, with a redundant, high-speed connection to Radiology.

Carolina Perera, Modern Languages \& Literature: Uses new technologies in teaching. Using the 3-D virtual world of Second Life, students can interact with native Spanish speakers from around the world. Carolina credited the assistance of Wendy Shapiro and Sue Shick, and enthusiastically mentioned her latest venture using Kinect with assistance from Roger Bielefeld and the HPC.

Robert Kirsch, Biomedical Engineering: Uses high performance computation in his research on the mechanics and control of human movement to restore movement to people with paralysis and other problems via implanted electrodes (FES). Using the High Performance Cluster computation performed by his six of his PhD students can be completed in a matter of hours instead of 20 days.

Mike Lewicki, Electrical Engineering \& Computer Sciences: Works in the field of computational theories of perception. At CMU, he never used the supercomputer due to high overhead and the length of time it took to write the code. Using the High Performance Cluster his group uses MATLAB to do the same thing in an afternoon, resulting in significant time savings, a faster cycle, flowing computations, tutorial models, and the ability to tackle larger problems.

Daniela Calvetti, Mathematics: Uses the HPC in applied mathematics research and education. The High Performance Cluster has been transformative and is fundamental for attracting students who place very well when they graduate.

## Appendix I - FSCICT Participants

| Member | Representing | Term |
| :---: | :---: | :---: |
| Raymond Muzic, Chair | SOM | 2009-2012 |
| Iwan Alexander | CSE | 2011-2014 |
| Marc Buchner | CSE | 2009-2012 |
| Christopher Burant | SON | 2010-2013 |
| Mark Griswold | SOM | 2011-2014 |
| Christine Hudak | SON | 2011-2014 |
| Chris Mihos | CAS | 2010-2013 |
| David Miller | MSASS | 2010-2013 |
| Jiayang Sun | CAS | 2009-2012 |
| Schuyler Thompson | Undergraduate Students (Fall, Co-op in Spring) | 2011-2012 |
| Brian Stump | Undergraduate Students (Spring) | 2011-2012 |
| Randall Toy | Graduate Students | 2011-2012 |
| Matthew Schiefer | Post-Doctoral Scholars | 2011-2012 |
| ex officio |  |  |
| Mary Quinn Griffin | Chair, FS Committee on University Libraries |  |
| Lev Gonick | VP, Information Technology Services |  |
| W. A. "Bud" Baeslack III | Provost \& Executive VP |  |
| Arnold Hirshon | University Librarian |  |
| Invited Consultants (standing invitation) | Representing |  |
| Roger Bielefeld | Research Computing/HPCC |  |
| Kalle Lyytinen | WSOM \& prior FSCICT chair |  |
| Other Consultants (based on topic) |  |  |
| Mark Henderson | Associate Vice President and Chief Operating Officer/ITS |  |
| Tom Siu | Chief Information Security Officer |  |
| Jeff Gumpf | Chief IT Architect |  |
| Mike Cubit | Director of Customer Service \& Support |  |
| Colleen Nagy | Senior Director of Strategic Initiatives |  |

## Appendix II - ITS Projects \& Priorities <br> As presented to FSCICT by <br> Colleen Nagy <br> Senior Director, Strategic Initiatives, Policy and Portfolio Management



FY 12 ESC Annual Operational Goals for the University

1. Investments and efforts in academic alliance alignment activities focused on ITS FY13-15 Strategic Framework.
2. Investment and effort in decision support, business process improvements and business agility
3. Information Security compliance, regulatory, and identity management and protection with a focus on clinical data management
4. University-Wide Program focus on virtualization in support of President's Climate Action Plan, cost containment, and alignment of university-wide IT human resources and talent.
5. Continue to advance IT governance with focus on Priority Review Board and other govemance groups on "IT Sourcing Framework" (aka the Goldstein Plan).


## Current List of Priorities




Project Priorities List - UnFunded for FY12


##  <br> think beyond the posstlle

Priorities Status as of December 2, 2011

| Status - FY12 Project Priorities - Funded |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Project | Status | Executive Sponsor | Impact (Change) | ESC Goal, Priority | Cost | Fiscal <br> Year |
| Pre-xward Grants System | Vendor relected, November 28n, Wonking on recommendetion to ESC | Suzarne Rivers | Fscuity, start | Academic aliance alignment octivities | $\begin{aligned} & \$ 2 \mathrm{M}-\$ 2.8 \mathrm{M} \\ & \text { over } 3 \text { years } \end{aligned}$ | FY2012 |
| Admistions for <br> Graduste <br> programs | Began designing PeopleSoft Sis interface | Mary Kerr, Charies Rozek | Student, Statf | Dacision support, business process improvements | $\begin{aligned} & \$ 100 \mathrm{~N} / \text { yearfor } 6 \\ & \text { years } \end{aligned}$ | F/2012 |
| PowerFAIDs | Interfoce from PeopleSoft Sis is live | Richard Bischoff | Student, Staff | Dacision support, business procass improvements | \$200k-\$400k | FY2012 |
| Travel and <br> Expense Module | Fit Gap analysis completed, Desigring PeopleSoft Financials interface | Dick Jamieson | Fsoulty, start | Dacision support, business process improvements | 564k | FY2012 |
|  |  |  |  |  |  |  |


| Status - FY12 Project Priorities - Funded |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Project | Status | Executive Sponsor | Impact <br> (Change) | ESC Goal, Priority | Cost | Fiscal <br> Year |
| Distributed Anterna Syztem (DAS) | RFP distributed, bids being reviewed | Jeff Gumpt | Faculty, Staff, Students, visitors |  | \$50k | Fr2011 |
| Desktop <br> Virtusization - <br> Dental School, <br> Engintering <br> Weatherhead | Received VDI resporses, Buildout of VDI sandbox started | Mark Henderzon | Starl, students | Decision support, business procass improvements | \$150k | Fr2011 |
| Technology enhsnced Claszrooms | 20 classrooms upgraded, Summer 2011, 5 to be upgraded over Wirter Break: | Lev Gonick | Fsculty, Students | Acodemic aliance alignment octivities | \$725k | FY2011 |
| Active <br> Collsboration <br> Room | Contractor selected for construction. Equipment installation to Degin 12/12 | Wendy Shapiro | Faculty, Students, starf | Academic aliance alignment octivities | \$179K-\$200k | Fr2011 |
| Visualization Wall | Quotes received for remaining work. | Roger Bieleteld | Faculty, Students | Acodemic alifance alignment octivitiss | \$180k | F/2011 |
|  |  |  |  |  |  |  |



## Appendix III - Proposed Policy on ITS Support for Retired Faculty

## Context

Mr. Lev Gonick, Vice President, Information Technology Services and Chief Information Officer, consulted the Faculty Senate Committee on Information and Communication Technology (FSCICT) regarding ITS support for retired (non-emeritus) faculty. The committee discussed the matter during two meetings. The intention was to recognize the value the University places on faculty as well as the University's contractual obligations for software and subscriptions while maintaining cyber security. The committee discussed the fact that free email accounts are available from more than one source, and ITS provides a means for CWRU former faculty members to forward CWRU emails to a non-CWRU address so that they can receive email from whoever might attempt to contact them via their CWRU e-mail address.

Additionally, the committee advocated that the University continue to provide full ITS support for faculty members with emeritus status. This places the ITS-support decision in the hands of the CWRU faculty and the Provost, while respecting possible contractual obligations. The Provost also maintains an emeritus faculty list which facilitates account maintenance and security.

## Resolution

Whereas the FSCICT was consulted for its advice regarding the ITS policy for retired faculty,

Whereas a faculty member who retires (without emeritus status), takes a position elsewhere or otherwise separates himself/herself from the university is no longer an employee of the University,

Whereas emeritus status connotes continued engagement in the Case Western Reserve University community, and

Whereas the decision regarding emeritus status is made by the CWRU faculty and the Provost,

Therefore be it resolved

Faculty members who are granted emeritus status or who are judged by the Provost to be legitimately in the process of obtaining this designation, retain the same ITS access to IT support and software as that afforded to regular, full-time faculty members. Those who retire or who for any other reason leave the University, are no longer afforded these services, but may establish_forwarding of their University email to an alternative email provider of their choice.

## Revision to the CWRU Faculty Handbook

From Pg 92 of
http://www.case.edu/president/facsen/frames/handbook/pdf/2011FacultyHandbook4_2011.pdf
(Underline denotes insertion.)
In addition to the privileges associated with retirement, CWRU emeritus faculty are generally awarded other perquisites, some of which include free parking when space is available, personal tuition waiver privileges, the use of CWRU libraries and some other facilities, listing in the university directory, being invited to various faculty functions, the same access to IT support and software as that afforded to regular full-time faculty; etc. Office space may be provided depending on the needs of the Department or School. Faculty members who retire (without emeritus status), take a position elsewhere or are otherwise separated from the University, may establish forwarding of their Case email.

# Appendix IV - Membership of ITS Strategic Planning Committees 



## Leverage technology portfolio to enable explorations of the 21st century University and the broader

 society.(Community engagement; Redefine boundaries; New partnerships)
Discussion Leader: Marilyn Sanders Mobley, Vice President for Inclusion, Diversity and Equal Opportunity
Members:

| Jim | Bader | Arts \& Sciences |
| :--- | :--- | :--- |
| Melinda | Boykin | Procurement |
| John | Clochesy | Nursing |
| Rob | Fischer | MSASS - Poverty Center |
| Shannon | French | Inamori Center |
| Jeff | Gumpf | ITS |
| Mike | Kenney | Arts \& Sciences |
| James | Lalumandier DDS, | Dental Medicine - Sealant Program Chair |
| Craig | Nard | Law |
| Marv | Schwartz | CCZ |
| Molly | Watkins | Center for International Affairs |
| Susan | Wentz | School of Medicine |

## Data Eco-System Evolution

(Support evidence-based decision-making; Support data stewardship, Focus on training, tools and growing data savvy community)
Discussion Leader: Christine Ash, Vice President for Planning and Budget
Members:

| Jean | Gubbins | Planning \& Inst. Research |
| :--- | :--- | :--- |
| Gene | Matthews | Facilities |
| David | Miller | MSASS |
| Sue | Rivera | Research Administration |
| Dennis | Rupert | Student Affairs |
| Jeff | Shaw | ITS |
| Mark | Williams | ERP |
| Colleen | Nagy | ITS |
| Amy | Hammett | Registrar |
| Chris | Masotti | School of Medicine |

## As Service Providers

(Overwhelm users with support; Support integrated, campus-wide commitment to outstanding customer experience)
Discussion Leader: Carolyn Gregory, Vice President for Human Resources
Members:

| Caron | Baldwin | Nursing |
| :--- | :--- | :--- |
| Mark | Beno | School of Medicine |
| Arthur | Hardee | Security |
| Don | Kamalsky | Student Affairs |
| Mike | Kubit | ITS |
| Nathan | Lambert | University Libraries |
| John | Lawyer | Campus Planning |
| Casey | Medley | Thwing Center Director |
| Nathan | Murphy | Registrar |
| Beth | Nochomovitz | Campus Services |
| David | Pilasky | SOM |
| Venus | Puliafico | Financial Aid |
| Tricia | Schellenbach | UMC |
| Thomas | Siu | ITS |
| Jill | Stanley | SOM |
| Laura | Watt | WSOM |
| Jonathan | Wehner | Enrollment Management |
| Roni | Weinberg Ornan | Marketing and Communications |

## Globalization of the Campus

(iCase OnLine Learning Platform; Supporting collaboration and distinctive programs both overseas and in University Circle
Discussion Leader: David Fleschler, Vice President for International Affairs
Members:

| Stan | Gerson | Comprehensive Cancer Center |
| :--- | :--- | :--- |
| Mark | Hans | School of Dental Medicine |
| Debby | Jacobson | MSASS |
| James | Kazura | Med School - Global Health \& Disease |
| Kalle | Lyytinen | WSOM |
| Gary | Wnek | Macromolecular Sc. \& Eng. |
| Melinda | Boykin | Procurement |
| Bo | Carlsson | Economics |
| Jess | Walders | ITS |
| Thomas | Knab | CAS |
|  |  |  |
| Mark | Turner | Cognitive Studies |
| Stuart | Youngner | Bioethics |

Focus on Student Outcomes
(21st Century digital literacies; Enabling Research, curriculum development, library) Discussion Leader: Arnold Hirshon, University Librarian/Associate Provost
Members:

| Mayo | Bulloch | Educational Enhancement Services |
| :--- | :--- | :--- |
| Donald | Feke | Vice Provost for Undergraduate Education |
| Sue | Nickel-Schwindewolf | Student Affairs |
| Sheila | Pedigo | Undergrad Research - SOURCE |
| Ginger | Saha | Health Sciences Library |
| Glenn | Starkman | Physics |
| Wendy | Shapiro | ITS |
| Bill | Deal | Religious Studies |
| David | Pilasky | SOM |
| Amy | Hammett | Registrar |
| Quentin | Jamieson | GSS President |
| Rick | Bischoff | Undergraduate Admissions |
| Mano | Singham | UCITE |

During the 2011-12 academic year the committee primarily worked on three matters:

1. Discussed, finalized, and approved the Diversity Strategic Action plan, which went to and was approved by the Faculty Senate in December 2011 and has since been approved by the Board of Trustees.
2. Considered a proposal for a Graduate Student Professional Development Center. We endorsed this proposal, especially for its attention to the underrepresented and eager that such a center that would come to serve junior faculty and post-doctoral researchers as well. As the Senate's graduate affairs committee has not yet, to our knowledge, finished their review of the proposal, we have not yet transmitted our endorsement to the Senate.
3. Began updating an extensive list of committee tasks, both those that have been completed since 2010 and those that are continuing responsibilities. Attached is an edited version of this list, in spreadsheet form. This version has been seen by the committee but not thoroughly vetted; it is meant more as a guide for the coming year(s) than a blueprint.

Respectfully submitted

Gary Lee Stonum, Chair

| Action | Expected outcome | Continuing tasks |
| :---: | :---: | :---: |
| 3) Expect transparency of University policies to assure fairness and empowerment of all faculty. Data regarding salaries, criteria for deciding merit, and other available human and material resources (such resources should not be privileged information--should be written out and available to all). Key issue: creating uniformity in promotion and tenure processes across the university. | Creation of a level playing field; informal information becomes formal and available in a variety of media | Follow up and get data from management centers as they respond to DSAP |
| 4) Increase minority representation in University committees and individual department committees. | Diversity across all committee structures, etc. | data needed |
| 5) Improve minority representation across all faculty ranks. | Dynamic learning environment; diversity expansion across academic ranks and roles; improved climate | part of DSAP |
| 1) Increase opportunities for the minority faculty to share problematic situations and seek resolutions: 1) monthly brown bag lunch, 2) web site for sharing issues of concern, 3) support system, 4) share solutions | A mechanism for minorities to share their problems and concerns, and to seek healthy resolutions | Pending? To re-invigorate? |
| 4) Create an annual summary report on concerns generated by all schools and administrative offices, the actions taken, and the short/long-term remedies to address the issues. |  | part of DSAP |
| 5) Identify "trends" and disseminate data to all academic units and the Case administration |  | work with OIDEO |
| 7) Review and provide commentary about the mechanisms that are in place to meet the diversity initiatives of the University/ strategic plan, core values, etc. | Deliverable products regarding diversity initiatives | work with OIDEO |
| strenginen approacnes to career aevelopment or junior taculy m order to enhance retention, mentoring. |  | via Professional Development Center? |
| Provide targeted support that assists minority faculty in receiving extramural funds for scholarship \& research |  |  |
| Create and nurture programs designed to develop pipe-line for recruiting pre-college and underrepresented minority college students. |  |  |

Throughout the year, the FSRC tackled what they considered as barriers to research. Below are the summaries:

## SPACE MANAGEMENT

- FSRC invited John Wheeler (SVP Admin) \& Steve Campbell (VP Facilities Management) to discuss with the committee the updates/delays on space renovation and management

0 CWRU has a fairly decentralized system in terms of space and facilities management. In general, Central has very little interface with school deans in space planning. However, Central feels that school deans need to be proactive in communicating their needs.

## ACTION ITEMS

- FSRC needs to identify things that need to change/have changed. Any improvements or hold-ups and forward these to John Wheeler and/or Steve Campbell


## PROCUREMENT

- The FSRC invited Dick Jamieson (VP Campus Services) to discuss with the committee any updates implemented in Procurement

0 An assessment of the service center was done and showed that our procurement service center was on the "middle of the road". However, the feedback gathered during the assessment was from VP or upper management. A more accurate assessment might be achieved if actual users (department assistants/administrators/lab managers, etc) of the service centers were approached. Never-the lesspost review, more communication with users appears to be the case. Overall procurement has noticeably improved relative to a few years ago.
o Improvements were made on procurement such as:

- Streamline procurement process
- Rolled out new e-procurement software, Syquest
o A pilot procurement program was implemented in the School of Law where purchases 5k and below bypasses the Procurement. Depending on the success of the pilot, the program may expand throughout the University


## ACTION ITEMS

- Customer Service and processes by Procurement has significantly increased. FSRC should continue to monitor but it is not considered a major problem/barrier at this time.


## IT STRATEGIC PLAN UPDATE

## QUESTION:

- How do we create an IT environment attractive and cutting edge to prospective and current faculty researchers? What will make us competitive as investigators?


## ISSUES:

- Storing and back-up of research data
o Navigating between University IT and School/Dept IT can prove to be difficult
o Storing data with the university is expensive
0 Researchers run into FISMA compliance issue is research data is stored externally
- Federal grants have restrictions on purchase of computers and software using grant money. How do we then supply researchers the basic tools to do their work?
o There is significant confusion on this issue and it needs to be clarified
- High Performance Computing Center
o 800 registered users but only a small fraction provide direct investigator support


## ACTION ITEM

- FSRC will need additional time to discuss this matter so it can relay to the planning committee how resources can drive cutting edge research that IT can bring.


## GOVERNANCE OF UNIVERSITY INSTITUTES AND CENTERS

- The Provost's office has formed a corporate advisory committee around Institutes and Centers to clarify and develop guidelines and define what Institutes and Centers are

0 Focus of this advisory committee are the centers and institutes that have formed as a result of Provost's Alliance

- Are the Alliances considered a school activity or a university activity?
- Are they sustainable, can they be developed?
- Will they sunset when done? How will this be accomplished
- Most Alliances are virtual but do not have guidelines for sustainability (perhaps due to a lack of support from the University?)
o Suggestions:
- Any policy written should include indirect cost recovery for larger center efforts in order for the centers to exist/survive outside of its school
- Centers could still exist under the auspices of the school but funds for management center would have to be written into the budget
- However, if Centers were to have their own management center, how will they be regulated?
- The FSRC could be a step to review Center proposals, review then through the years, act as an advisory committee.


## ACTION ITEM

- Bob Miller \& Chris Ash will talk to Bud Baeslack on this topic and see if there's anything the FSRC can weigh in on
- FSRC should discuss more on this issue


## HUMAN RESOURCES

## ACTION ITEM

- The committee is seeking clarification on some HR policies
o Raises and equity
o Job security for soft money staff (e.g. research associates)
o Hiring and firing
o Performance evaluations
- The committee recommends that this issue should be considered as one of the critical bottleneck to research


## GRANTS AND AWARDS

- There was concern over the delays and inefficiencies in the setup of grant accounts and the approval of contracts and sub-contracts are contributing to substantial overhead in the research enterprise
o Since the committee has addressed this concern, the Office of Research Administration (ORA) under the leadership of Suzanne Rivera, has made great strides in improving the process.
o The ORA has created a log to track sub-contract submissions and a re-organization of the administration structure has been made


## QUESTION

- Problems still arise in terms of tracking where the documents are once they are submitted to the Office of Grants and Contracts. Do we need a tracking system?


## TECH TRANSFER

- A summary of the process was presented to the committee.
o Where does tech transfer rank on the list of CWRU priorities?
o Where does commercialization rank in teaching, research and service across the campus?


## UNDERGRADUATE RESEARCH

- There is a definite need to develop a coherent and effective undergraduate research experience across campus


## ACTION ITEM

- The FSRC should consider this as a critical issue and should discuss more

The FSRC will have its final meeting on May $11^{\text {th }}$, 2012 where the committee will finalize its list of concerns/issues for the next fiscal year. Some have already been identified:
o Research brand / Undergraduate Research experience
o Research and tech transfer
o Supporting Research Administration via IDC
A copy of the final list will be sent to the Faculty Senate.

| 2012-2013 Committee on Bylaws |  | Last Name | First Name | School | Title | Department | Office | LC | Phone | Email | Case ID | Support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Term | Membership |  |  |  |  |  |  |  |  |  |  |  |
| 2010-2013 (replacing Ken Ledford, started fall 2011) | chair 2011-2013 | Singer | David | CAS | Professor | Mathematics | Yost 207a | 7058 | $\times 2892$ | david.singer@case.edu | das5 |  |
| 2009-2012, 2012-2015 |  | Palomo | J. Martin | SODM | Assoc. Professor | Orthodontics | Dental School | 4905 | $\times 2449$ | palomo@case.edu | jmp5 |  |
| 2011-2014 |  | Webel | Allison | SON | Instructor | Nursing | Nursing | 4904 |  | allison.webel@case.edu | arw72 |  |
| 2012-2015 |  | McEnery | Maureen | SOM | Assoc. Professor | Neurology UH |  | 4938 | x3377 | maureen.mcenery@case.edu | mwm4 |  |
| 2010-2013 |  | Meckes | Mark | CAS | Asst. Professor | Mathematics |  | 7058 |  | mark.meckes@case.edu | mwm2 |  |
| 2010-2013 (started fall 2012, replacing Cassandra Robertson) |  | Carney | David | LAW | Professor | Law |  | 7148 | $\times 3301$ | david.carney@case.edu | djc5 |  |
|  | unofficial guest | Woyczynski | Liz |  | Secretary of the University Faculty | Office of President and Provost | Adelbert 109 | 7001 | $\times 4316$ | liz.woyczynski@case.edu | exh |  |
|  | unofficial guest | Treml | Colleen |  | Interim General Counsel | Office of General Counsel | Adelbert 311 | 7020 | $\times 4286$ | colleen.treml@case.edu | cgt3 | darlene.monaco@case.edu |
|  | unofficial guest | Langell | Lois |  | Special Asst. to the Provost | Office of the Provost | Adelbert 216 | 7001 | $\times 4342$ | lois.langell@case.edu | 1 j 13 |  |


| 2012-2013 Committee on Faculty Personnel |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Term | Membership | Last Name | First Name | School | Title | Department | Office | LC | Phone | Email | Support | Case ID |
| 2009-2012 (started 2010, completing Wally Gingerich's term), 2012-2015 | Chair, 2011-2013 | Higgins | Patricia | SON | Assoc. Professor | Nursing | School of Nursing | 4904 | $\times 8850$ | patricia.higgins@case.edu |  | pxg3 |
|  | ex officio |  |  |  | Faculty Diversity Officer | Office for Inclusion, Diversity, \& EO |  |  |  |  |  |  |
|  | ex officio , member of Faculty Compensation | Ziats | Nicholas | SOM | Associate Professor | Pathology | Pathology 204 | 7288 | $\times 5176$ | nicholas.ziats@case.edu |  | npz |
|  | ex officio , president's designee | Singer | Lynn |  | Deputy Provost \& VP for AA | Office of the Provost | Adelbert 205 | 7001 | $\times 4389$ | lynn.singer@case.edu | helen.day@case.edu | Ixs5 |
| 2011-2014 |  | McNally | Laura | LAW | Assoc. Professor | School of Law | Law School | 7148 |  | laura.mcnally@case.edu | lawclinic@case.edu | lem20 |
| $\begin{aligned} & \hline 2008-2011 ; 2011- \\ & 2014 \\ & \hline \end{aligned}$ |  | Farrell | Karen | PHED | Asst. Professor | Physical Education and Athletics | Veale | 7223 | $\times 0364$ | karen.farrell@case.edu |  | klc3 |
| 2009-2012 (started <br> 2010, completing <br> Sana Loue's term), <br> $2012-2015$ <br> 2007 |  | Deming | Nicole | SOM | Assistant Professor | Bioethics | TA207 | 4976 | $\begin{array}{\|l} \text { x5386; } \\ 778- \\ 1263 \end{array}$ | nicole.deming@case.edu | rachel.parker@case.edu | nmd11 |
| $\begin{aligned} & \hline 2007-2010,2010- \\ & 2013 \\ & \hline \end{aligned}$ |  | Leitman | Marshall | CAS | Professor | Mathematics | Yost 220 | 7058 | $\times 2890$ | marshall.leitman@case.edu |  | mx15 |
| $\begin{aligned} & 2007-2010,2010- \\ & 2013 \\ & \hline \end{aligned}$ |  | Liberatore | Vincenzo | CSE | Assoc. Professor | Electrical Engineering and Computer Science | Glennan 517A | 7071 | $\times 4089$ | vincenzo.liberatore@case.edu |  | vx111 |
| 2011-2014 |  | Savrin | Carol | SON | Assoc. Professor | Nursing | School of Nursing | 4904 | x5304 | carol.savrin@case.edu |  | cls18 |
| 2011-2014 |  | Ozsoyoglu | Meral | CSE | Professor | Electrical Engineering and Computer Science | 514A Glennan | 7071 | $\times 2818$ | meral.ozsoyoglu@case.edu |  | mxo2 |
| $\begin{aligned} & \hline 2009-2012 ; 2012- \\ & 2015 \\ & \hline \end{aligned}$ |  | Yang | Peter | CAS | Assoc. Professor | Modern Lang\&Lit | Guildford 201 | 7118 | $\times 2234$ | peter.yang1@case.edu |  | pjy2 |


| Term | Membership | Last Name | First Name | School | Title | Department | Office | LC | Phone | Email | Support | Case ID |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008-2011, 2011-2014 | chair, 2011-2013 | Snider | Martin | SOM | Assoc. Professor | Biochemistry | SOM W433 | 4935 | $\times 5572$ | martin.snider@case.edu |  | mds5 |
|  | ex-officio , Dean Graduate Studies | Rozek | Charles |  | Dean | Graduate Studies | Nord, 6th floor | 7080 | $\times 4390$ | charles.rozek@case.edu | matt.smith@case.edu | cer2 |
|  | ex-officio, graduate student |  |  |  |  |  |  |  |  |  |  |  |
|  | ex-officio , graduate student |  |  |  |  |  |  |  |  |  |  |  |
|  | ex-officio, graduate student |  |  |  |  |  |  |  |  |  |  |  |
|  | ex-officio, professional student senator (MSASS) |  |  |  |  |  |  |  |  |  |  |  |
|  | ex-officio, post-doc |  |  |  |  |  |  |  |  |  |  |  |
|  | ex-officio , Assoc. VP Research | Rivera | Sue |  | Assoc. VP | Research |  | 7015 | $\times 4515$ | suzanne.rivera@case.edu | rebecca.barker@case.edu | smr140 |
| 2012-2015 |  | Li | Jing | CSE | Assoc. Professor | EECS |  | 7070 |  | jing.li1@case.edu |  | jx1175 |
| 2009-2010, 2010-2013 |  | Damato | Lisa | SON | Associate Professor | Nursing | School of Nursing 302C | 4904 | $\times 2597$ | elizabeth.damato@case.edu |  | egd |
| 2012-2015 |  | Jin | Ge | SODM | Asst. Professor | Biological Sciences | School of Dental Medicine | 4905 |  | ge.jin@case.edu |  | gxj7 |
| $\begin{aligned} & \text { (replacing Chris Flint, } \\ & \text { starting 2011) 2010- } \\ & 2013 \end{aligned}$ |  | Tracy | Elizabeth | MSASS | Professor | MSASS | MSASS | 7164 | $\times 6294$ | elizabeth.tracy@case.edu |  | ext |
| 2010-2013 |  | Van Orman | James | CAS | Asst. Professor | Department of Earth, Environmental, and Planetary Sciences | A W Smith Bldg. $112$ | 7216 | x3765 | james.vanorman@case.edu |  | jav12 |
| 2011-2014 (replacing Edith Lerner, started fall 2012) |  | Barkoukis | Hope | SOM | Assoc. Professor | Nutrition | Wood WG48 | 4954 | $\times 2440$ | hope.barkoukis@case.edu |  | hdb |
| 2011-2014 |  | Rosenblatt | Charles | CAS | Professor | Physics | Rockefeller | 7079 | $\times 4125$ | charles.rosenblatt@case.edu |  | cxr |
| 2009-2012 (started 2010, to complete Wyatt Newman's term), 2012-2015 |  | Marchant | Roger | CSE | Professor \& Director | Biomedical Engineering | Wickenden 309 | 7207 | $\times 3005$ | roger.marchant@case.edu |  | rxm4 |


| Term | Membership | Last Name | First Name | School | Title | Department | Office | LC | Phone | Email | Support | Case ID |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2009-2012, \\ & 2012-2015 \end{aligned}$ | chair, 2011-2013 | Muzic | Ray | SOM | Assoc.Professor | Radiology | UH-Bishop | 5056 | 844-3543 | raymond.muzic@case.edu |  | rfm2 |
|  | ex-officio , FSCUL, chair or designee | Quinn-Griffin | Mary |  | Asst. Professor | Nursing | School of Nursing | 4904 | $\times 1920$ | mary.quinngriffin@case.edu |  | pjh7 |
|  | ex-officio , provost or designee | Baeslack | Bud |  | Provost | Office of the Provost | Adelbert 216 | 7001 | $\times 4346$ | baeslack@case.edu | susan.karaba@case.edu | wab59 |
|  | ex-officio, <br> University Librarian | Hirshon | Arnold |  | University Librarian | University Libraries | KSL | 7151 | $\times 2992$ | arnold.hirshon@case.edu |  | axh374 |
|  | ex-officio , VP ITS | Gonick | Lev |  | Vice President IT, CIO | Information Technology | Adelbert 109 | 7019 | $\times 1025$ | lev.gonick@case.edu | lora.veselsky@case.edu | lsg8 |
|  | student, graduate |  |  |  |  |  |  |  |  |  |  |  |
|  | student, post-doc |  |  |  |  |  |  |  |  |  |  |  |
|  | student, undergrad |  |  |  |  |  |  |  |  |  |  |  |
| 2010-2013 |  | Mihos | Chris | CAS | Professor | Astronomy | Sears 567 | 7215 | $\times 3729$ | james.mihos@case.edu |  | jcm9 |
| 2012-2015 |  | Yu | Xin | CSE | Assoc. Professor | Biomedical Engineering |  | 7207 | x3918 | xin.yu@case.edu |  | xxy18 |
| 2010-2013 |  | Burant | Chris | SON | Assoc. Professor | School of Nursing | School of Nursing | 4904 |  | christopher.burant@case.edu |  |  |
| 2010-2013 |  | Miller | David | MSASS | Assoc. Professor | MSASS | MSASS Building | 7164 | $\times 8755$ | david.miller@case.edu |  | dbm5 |
| $\begin{array}{\|l\|} \hline 2008-2011,2011 \\ 2014 \end{array}$ |  | Hudak | Christine | SON | Assoc. Professor | School of Nursing | School of Nursing | 4904 | x6315 | christine.hudak1@case.edu |  | cah16 |
| 2011-2014 |  | Griswold | Mark | SOM | Assoc. Professor | Radiology |  | 1714 | 844-3858 | mark.griswold@case.edu |  | mag46 |
| 2011-2014 |  | Alexander | Iwan | CSE | Professor | Mechanical \& Aerospace Eng. |  | 7222 | $\times 6045$ | iwan.alexander@case.edu |  | ida2 |
| 2012-2015 |  | Teich | Sorin | SODM | Assoc. Professor | Comprehensive Care |  | 4905 |  | sorin.teich@case.edu |  | stt5 |


| 2012-2013 Committee on Research |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Term | Membership | Last Name | First Name | School | Title | Department | Office | LC | Phone | Email | Support | Case ID |
| 2010-2013 | chair, 2012-2013 <br> ex-officio, Dean <br> Graduate Studies | Sobel | Matt | Wsom | Professor \& Chair | Operations |  | 7235 | $\times 6003$ | matthew.sobel@case.edu |  | mjs13 |
|  |  |  | Chuck |  | Dean | Graduate Studies | Nord, 6th floor | 7027 | $\times 4390$ | charles.rozek@case.edu |  | cer2 |
|  | ex-officio , Assoc. VP Research | Rivera | Sue |  | Assoc. VP | Research |  | 7015 | $\times 4515$ | suzanne.rivera@case.edu | rebecca.barker@case.edu | smr140 |
| 2011-2012 | student, graduate |  |  |  |  |  |  |  |  |  |  |  |
| 2011-2012 | student, graduate |  |  |  |  |  |  |  |  |  |  |  |
| 2011-2012 | student, graduate |  |  |  |  |  |  |  |  |  |  |  |
|  | student, postdoc |  |  |  |  |  |  |  |  |  |  |  |
| 2012-2015 |  | Jankowsky | Eckhard | SOM | Assoc. Professor | RNA Molecular Biology |  | 4973 | $\times 3336$ | eckhard.jankowsky@case.edu |  | exj13 |
| 2011-2014 |  | Jurevic | Richard | SODM | Asst. Professor | Biological Sciences |  | 4905 |  | richard.jurevic@case.edu |  | rjij11 |
| $2007-2010$, <br> 2013 |  | Jones | Katherine | SON | Professor |  | School of Nursing | 4904 | $\times 5979$ | katherine.jones@case.edu |  | krj13 |
| 2008-2011, 2011-2014 |  | Kash | Kathy | CAS | Professor | Physics | Rockefeller | 7079 | $\times 4021$ | kathleen.kash@case.edu |  | kxk43 |
| 2012-2015 <br> 2008-2011 (started in <br> 2010, completing Janet <br> McGrath's term), 2011- <br> 2014 |  | Averbook | Bruce | SOM | Assoc. Professor | Surgery MHMC | SOM | 1900 | 778-4795 | bruce.averbook@case.edu |  | bja4 |
|  |  | Hoffer | Lee | CAS | Asst. Professor | Anthropology | Mather Memorial 205 | 7125 |  | lee.hoffer@case.edu |  | Idh24 |
| 2008-2011 (started in 2009, completing Cassandra Robertson's term), 2011-2014 |  | Kirsch | Robert | CSE | Professor \& Associate Chair | Biomedical Engineering |  | 7207 | $\times 3158$ | robert.kirsch@case.edu |  | rfk3 |
| 2010-2013 |  | Santiago | Anna Maria | MSASS | Professor | MSASS | MSASS 204 | 7164 |  | anna.santiago@case.edu |  | ams333 |


| 2011-2012 Committee on University Libraries |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Term | Membership | Last Name | First Name | School | Title | Department | Office | LC | Phone | Email | Support | Case ID |
| $\begin{array}{\|l} \hline 2008-2011 ; 2011- \\ 2014 \\ \hline \end{array}$ | chair, 2012-2013 | Merat | Frank | CSE | Assoc. Professor | Electrical Engineering and Computer Science | Glennan 516 |  |  | francis.merat@case.edu |  | flm |
|  | ex-officio, Health Sciences Library | Saha | Ginger | SOM | Director | Health Sciences Library | Health Science Center | 4914 | $\times 3436$ | virginia.saha@case.edu |  | vmg2 |
|  | ex-officio , FSCICT, chair or designee | Muzic | Ray | SOM | Assoc.Professor | Radiology | UH-Bishop | 5056 | 844-3543 | raymond.muzic@case.edu |  | rfm2 |
|  | ex-officio, Law Library | Carrick | Kathleen | LAW | Director | Law Library | Gund | 7148 | $\times 6357$ | kathleen.carrick@case.edu |  | kxc4 |
|  | ex-officio, MSASS Library | Skutnik | Samantha | MSASS | Director | MSASS Library |  | 7288 | $\times 2283$ | samantha.skutnik@case.edu |  | scs 33 |
|  | ex-officio, University Librarian | Hirshon | Arnold |  | University Librarian | University Libraries | Kelvin Smith Library | 7151 | $\times 2992$ | arnold.hirshon@case.edu |  | axh374 |
|  | ex-officio , VP ITS | Gonick | Lev |  | VP | Information and Technology Services | Adelbert 109 | 7019 | x1025 | lev.gonick@case.edu | lora.veselsky@case.edu | lsg8 |
|  | student, graduate |  |  |  |  |  |  |  |  |  |  |  |
|  | student, postdoc |  |  |  |  |  |  |  |  |  |  |  |
|  | student, undergraduate |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline 2008-2011, \\ 2011-2014 \\ \hline \end{array}$ |  | Quinn Griffin | Mary | SON | Asst. Professor | Nursing | School of Nursing | 4904 | $\times 1920$ | mary.quinngriffin@case.edu |  | mtq2 |
| 2012-2015 |  | Landers | Michael | SODM | Assoc. Professor | Oral Diagnosis | School of Dental Medicine | 4905 | $\times 3876$ | michael.landers@case.edu |  | mal |
| 2012-2015 |  | Robertson | Cassandra | LAW | Assoc. Professor | Law | Gund | 7148 | $\times 3302$ | cassandra.robertson@case.edu |  | cbr10 |
| 2012-2015 |  | Janigro | Damir | SOM | Professor | Neurosurgery | School of Medicine |  |  | janigrd@ccf.org |  |  |
| 2010-2013 <br> (replacing Michelle Munson, started fall 2011) |  | Wilson | Amy | MSASS | Asst. Professor | MSASS | MSASS | 7164 |  | amy.b.wilson2@case.edu |  | abw38 |
| 2012-2015 |  | Gridley | Sarah | CAS | Asst. Professor | English |  | 7117 |  | sarah.gridley@case.edu |  | scg24 |
| $\begin{aligned} & 2008-2011,2011- \\ & 2014 \end{aligned}$ |  | Petschek | Rolfe | CAS | Professor | Physics | Rockefeller | 7079 | $\times 4035$ | rolfe.petschek@case.edu |  | rgp |
| 2010-2013 |  | Buchanan | Richard | WSOM | Professor | Information Systems |  | 7235 |  | george.buchanan@case.edu |  | grb42 |
| 2010-2013 (started fall 2011, completing John Broich's term) |  | Deal | William | CAS | Professor | Religious Studies | Mather House | 7112 |  | william.deal@case.edu |  | wed |


| Term | Membership | Last Name | First Name | School | Title | Department | Office | LC | Phone | Email | Support | Case ID |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012-2015 | chair, 2011-2013 | Farrell | Karen | PHED | Asst. Professor | Phys Ed \& Athletics | Veale | 7223 | $\times 0364$ | karen.farrell@case.edu |  | klc3 |
|  | ex-officio , provost or designee | Singer | Lynn |  | Deputy Provost \& VP for AA | Office of the Provost | Adelbert 216 | 7001 | $\times 4346$ | lynn.singer@case.edu | helen.day@case.edu | 1xs5 |
|  | ex-officio, Women Faculty SOM, chair or designee | Khatri | Sumita |  | Asst. Professor | Medicine | Metro Health | n/a |  | khatris@ccf.org |  | mas36 |
|  | ex-officio, Women's Center, chair or designee | Miller | Dorothy |  | Director | Women's Center | Thwing Center 309 | 7175 | $\times 1064$ | dorothy.miller@case.edu |  | dcm9 |
|  | ex-officio, PACoW chair or designee | Miller | Dorothy |  |  |  |  |  |  |  |  |  |
| 2012-2015 |  | Palomo | Leena | SODM | Asst. Professor | Periodontics |  | 4905 |  | leena.palomo@case.edu |  | lvb3 |
| 2010-2013 |  | Minnes | Sonia | MSASS | Asst. Professor | MSASS |  | 7164 | 844-2138 | sonia.minnes@case.edu |  | sik4 |
| $\begin{array}{\|l} \hline 2011-2014 \\ \text { (replacing } \\ \text { Jacqueline } \\ \text { Lipton, } \\ \text { started fall } \\ \text { 2012) } \\ \hline \end{array}$ |  | Hill | Jessie | LAW | Professor | LAW | Gund Hall | 7148 | $\times 0553$ | beatrice.hill@case.edu |  | bjh11 |
| $\begin{array}{\|l\|} \hline 2007-2010, \\ 2010-2013 \\ \hline \end{array}$ |  | Huckelbridge | Art | CSE | Professor | Civil Engineering | Bingham | 7201 | $\times 2474$ | arthur.huckelbridge@case.edu |  | aah4 |
| $\begin{array}{\|l\|} \hline 2008-2011, \\ 2011-2014 \\ \hline \end{array}$ |  | Maloni | Judith | SON | Assoc. Professor | Nursing | School of Nursing | 4904 | $\times 2912$ | judith.maloni@case.edu |  | jam44 |
| $\begin{aligned} & 2007-2010, \\ & 2010-2013 \\ & \hline \end{aligned}$ |  | Ritzmann | Roy | CAS | Professor | Biology | Degrace | 7080 | $\times 3554$ | roy.ritzmann@case.edu |  | rer3 |
| 2011-2014 |  | Richley | Bonnie | WSOM | Asst. Professor | Organizational Behavior | WSOM | 7235 |  | bonnie.richley@case.edu |  | bar2 |
| 2011-2014 |  | Stiefel | Usha | SOM | Asst. Professor | Medicine | School of Medicine |  | 791-3800 | usha.stiefel@case.edu |  | uxv |


| 2012-2013 Nominating Committee |  |  |  | School | Title | Department | Office | LC | Phone | Email | Case ID |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Term | Membership | Last Name | First Name |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 2010-2012 \\ & \text { (replacing Asim } \\ & \text { Erdilek, started } \\ & 2011-2012 \text { ), } \\ & 2012-2014 \end{aligned}$ | $\begin{aligned} & \text { chair, 2012- } \\ & 2013 \\ & \hline \end{aligned}$ | Peck | Simon | WSOM | Assoc. Professor | Marketing \& Policy Studies |  | 7235 | $\times 3824$ | simon.peck@case.edu | sip1 |
|  | regular guest | Woyczynski | Liz |  | Secretary of the University Faculty | Office of the Provost | Adelbert 109 | 7001 | $\times 4316$ | liz.woyczynski@case.edu | exh |
|  | ex-officio, FS chair-elect |  |  |  |  |  |  |  |  |  |  |
| 2011-2013 <br> (started fall 2012, replacing Susan Tullai- <br> McGuinness) |  | Quinn Griffin | Mary | SON | Associate Professor | Nursing-General Operating | SON | 4904 | $\times 1920$ | mary.quinngriffin@case.edu | mtq2 |
| 2012-2014 |  | Kahana | Eva | CAS | Professor | Sociology | 226 Mather <br> Memorial | 7124 | $\times 2704$ | eva.kahana@case.edu | exk |
| 2012-2014 |  | Palomo | Leena | SODM | Asst. Professor | Periodontics | School of Dental Medicine | 4905 |  | leena.palomo@case.edu | Ivb3 |
| 2012-2014 |  | Macalla | Marcus | PHED | Instructor | Phys. Ed \& Athletics |  | 7223 |  | marcus.macalla@case.edu | mnm9 |
| $\begin{array}{\|l\|} \hline 2010-2012, \\ 2012-2014 \\ \hline \end{array}$ |  | Marchant | Roger | CSE | Professor \& Director | Biomedical Engineering | Wickenden $309$ | 7207 | $\times 3005$ | roger.marchant@case.edu | rxm4 |
| 2011-2013 |  | Wilson-Delfosse | Amy | SOM | Assoc. Professor | Pharmacology | SOM | 4965 | $\times 3494$ | amy.wilson-delfosse@case.edu | axw41 |
| $\begin{array}{\|l\|} \hline 2009-2011, \\ 2011-2013 \\ \hline \end{array}$ |  | Crampton | David | MSASS | Assoc. Professor | MSASS | MSASS 105 | 7164 | x6680 | david.crampton@case.edu | dsc14 |
| 2011-2013 |  | McNally | Laura | LAW | Assoc. Professor | Law | Gund | 7148 |  | laura.mcnally@case.edu | lem20 |

11-12

| Panel | First | Last | School | Department |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Panelist | Hussein | Assaf | SODM | Comprehensive Care |  |  |  |  |  |
| Panelist | John | Blackwell | CSE | Macromolecular Science |  |  |  |  |  |
| Panelist | Cathy | Carlin | SOM | Physiology and Biophysics |  |  |  |  |  |
| Panelist | David | Carney | LAW | Law |  |  |  |  |  |
| Chair or Panelist | Hillel | Chiel | CAS | Biology |  |  |  |  |  |
| Chair or Panelist | Laura | Chisolm | LAW | Law |  |  |  |  |  |
| Panelist | Sara | Debanne | SOM | Epidemiology \& Biostatistics |  |  |  |  |  |
| Panelist | Dave | Diles | PHED | Physical Education and Athletics |  |  |  |  |  |
| Chair or Panelist | Robin | Dubin | WSOM | Economics |  |  |  |  |  |
| Panelist | Fady | Faddoul | CDSM | Dentistry: General |  |  |  |  |  |
| Panelist | Paul | Gerhart | WSOM | Marketing and Policy Studies |  |  |  |  |  |
| Chair or Panelist | Ken | Ledford | CAS | History |  |  |  |  |  |
| Chair or Panelist | Judy | Lipton | LAW | Law |  |  |  |  |  |
| Panelist | Susan | Ludington | SON | Nursing |  |  |  |  |  |
| Panelist | Patricia | McDonald | SON | Nursing |  |  |  |  |  |
| Chair or Panelist | Bill | Merrick | SOM | Biochemistry |  |  |  |  |  |
| Chair or Panelist | John | Orlock | CAS | Theater and Dance |  |  |  |  |  |
| Panelist | Cassandra | Robertson | LAW | Clincial Programs |  |  |  |  |  |
| Panelist | Alan | Rocke | CAS | History |  |  |  |  |  |
| Panelist | Sandra | Russ | CAS | Psychology |  |  |  |  |  |
| Panelist | Ruth | Siegel | SOM | Pharmacology |  |  |  |  |  |
| Panelist | David | Singer | CAS | Mathematics |  |  |  |  |  |
| Panelist | Gary | Stonum | CAS | English |  |  |  |  |  |

11-12


## Appointments to Center for International Affairs Advisory Panel

An Advisory Council should be established to take over the strategic functions currently exercised by the IPC upon conclusion of the internationalization planning process, including
(i) providing ongoing advice regarding the development of the university's global strategy and the strategic direction of the Center for International Affairs (including additional structural development of the office);
(ii) serving as a central advisory body to address cross-unit internationalization issues and facilitate cross-unit coordination of resources (financial and non-financial) for internationalization; and
(iii) carrying out a communications function to help create visibility and facilitate the culture shift represented by internationalization.

The Advisory Council is intended as a strategic, advisory body; it will not be responsible for oversight of the day-to-day operations of the Center for International Affairs. The Advisory Council should meet once every semester or as needed and should include the following:
o Deans of the seven Schools and the College of Arts and Sciences, to serve on a rotating basis with two Deans serving at a time-one dean from an Undergraduate Program Faculty school/college and one dean from a non-Undergraduate Program Faculty school
o Three faculty members selected by the Faculty Senate
o Vice Provost for Undergraduate Education
o Vice Provost for Graduate Studies
o Vice President for Student Affairs
o One undergraduate student selected by the Undergraduate Student Government
o One graduate/professional student selected by an appropriate governing body
o Associate Provost for International Affairs (ex officio)
o Director for International Affairs (ex officio)

## Current appointees:

Cyrus Taylor, CAS - dean from UPF school/college
Jerry Goldberg, SODM - dean from non-UPF school/college

## Senate nominees:

Robert A. Salata, M.D. (SOM)
Gary Previts (WSOM)
Peter Lagerlof (CSE)

## 1. Case School of Engineering: JOSEPH M. MANSOUR

Professor, Mechanical and Aerospace Engineering, with a secondary appointment in Orthopaedics. Professor Mansour joined the University in 1982. Prior to that he was Associate Director of the Gait Analysis Laboratory at Boston Children's Hospital and an Associate in Orthopaedics at the Harvard Medical School. His research focuses on mechanical behavior of soft tissues, with a particular emphasis on native and tissue engineered articular cartilage. He collaborates with investigators in the Skeletal Research Center (Biology) and Orthopaedics. He has been nominated for the Wittke and Diekoff awards, and in 2010 he was awarded the Srinivasa P. Gutti Memorial Engineering Teaching Award. From 2001 to 2005 he served as Associate Dean for Research and Graduate Programs in the Case School of Engineering. He has served on the CSE's Executive Committee, Committee on Appointments, and the Undergraduate Studies committee, which he chaired in a year in which major changes in the requirements for majors and minors within the CSE were implemented. While chair of his department's undergraduate curriculum committee major changes in the curriculum were developed, and a minor in mechanical design and manufacturing was implemented. He is also a faculty advisor to Tau Beta Pi, the engineering honor society.

## 2. College of Arts and Sciences: DAVID SINGER

(Candidate was slated as a candidate after the ballot went out. The Faculty Senate will vote by consent agenda to have him be the CAS representative to the Executive Committee for 2012-2013.)
Professor of Mathematics. David Singer has been a member of the faculty of CWRU since 1975. His research areas include differential geometry, dynamical systems, and variational problems. He has been nominated for the Wittke award for teaching and has won the USG's Undergraduate Teaching Excellence Award (2002) and the Ohio Section Award for Distinguished College or University Teaching of Mathematics of the Mathematics Association of America (2005). He was a faculty Senator from 1992 to 1995, from 2002 to 2005, and since 2011. He was Chair of the Faculty Senate in 2003-4 and has been a member of the Senate Budget Committee and a member and chair of the Bylaws Committee. He has also served as a member and as chair of the Executive Committee of the College of Arts and Sciences and was Chair of the Department of Mathematics from 1992 to 1995.

## 3. Frances Payne Bolton School of Nursing: PATRICIA A. HIGGINS

Associate Professor in the Case Western Reserve University School of Nursing and Research Scientist in the Cleveland VAMC Geriatric Research Education Clinical Center (GRECC). Dr. Higgins has a sustained program of research focused on improving the health and quality of life of older adults with chronic illness. Dr. Higgins has a considerable portfolio as PI, CO-I, and/or mentor of clinical research studies. Her current work is an NIA-funded grant in which an interdisciplinary team is investigating the measurement and effect of circadian light on the sleep-wake cycles of persons with dementia who live at home with their caregivers. Dr. Higgins was a team member of CWRU's NSF-funded ACES grant and is currently Director of Evaluation for the CWRU School of Nursing P30 Center grant on Self-Management and Co-Director of the Evaluation Core of Case Western Reserve University Clinical \&Translational Science Collaborative.

## 4. School of Law: DALE NANCE

John Homer Kapp Professor of Law. I joined the faculty of CWRU in 2002, after serving for twenty years on the faculties of other law schools. My teaching and writing have focused mostly on evidence and proof in courts. For a law professor, my scholarship has been rather eclectic, including traditional doctrinal elaboration, but also interdisciplinary work (applying decision theory, economics, probability theory, and general epistemology to the problems of adjudication), and empirical research (studying, for example, how jurors react to different ways of presenting forensic science). I have served on or chaired a variety of committees within the law school, including the dean search committee, the dean's advisory committee, the promotion and tenure committee, the curriculum committee, and ad hoc committees addressing various pressing issues with regard to the school's performance in national rankings and our students' performance on bar examinations. At the university level, I have served on the provost's committee on promotion and tenure, and (this year) on the faculty senate. Outside the university, I have chaired, and served on the steering committee for, the Evidence Section of the Association of American Law Schools.

## 5. Mandel School of Applied Social Sciences: DAVID CRAMPTON

Associate Professor of Social Work, Mandel School of Applied Social Sciences. David earned his Ph.D.in political science and social work from the University of Michigan in 2001 and joined the MSASS faculty in 2002. His scholarship, teaching and service are dedicated to finding effective ways to engage communities, families, and social workers in the care and protection of vulnerable children.
His primary research interests concern the evaluation of family-centered and community-based child welfare practices, and specifically the use of family meetings in cases of child maltreatment. He has conducted national research in these areas with funding from the Annie E. Casey Foundation. David recently chaired a community taskforce that made recommendations for improving the Cuyahoga County Department of Children and Family Services. He is serving his second term as a Faculty Senator and he has also served as a member of the Faculty Senate research and nominating committees.
David teaches courses in child and family policy, community development, program design, and theories of social welfare. In 2007, he was awarded the Outstanding Teacher Award by the MSASS Alumni Association, which takes nominations once a year from the student body.

## 6. School of Dental Medicine:

## HUSSEIN ASSAF

Associate Professor, Department of Comprehensive Care; Assistant Director, AEGD Program. Dr. Assaf has been on the Faculty Senate as a senator since 2010. He joined the CWRU faculty in 1996, where he directs the esthetic dentistry course. He also co-directs and lectures in several pre and post doctoral courses. His teaching interests include general dentistry, and his research interests include cosmetic dentistry, implant dentistry, crown and bridge, dentures, and restorative dentistry.

## LEENA PALOMO

Assistant Professor, Periodontics. Dr. Palomo has been a senator since 2010, and she has served on the Honorary Degree Committee since 2011. She will serve on next year's Faculty Senate Nominating and Women Faculty committees. Dr. Palomo is a recipient of the 2008-2009 Glennan Fellowship and was recently named the recipient of the 2012 AADR William B. Clark Fellowship in Clinical Research by the American Association for Dental Research. This award recognizes investigators carrying out clinical research in periodontology. Her research interest is the effect of bisphophonates on the periodontium in postmenopausal women. Dr. Palomo is a board certified periodontist with a private practice limited to periodontics and implant services.

## 7. School of Medicine: WILLIAM MERRICK

Professor of Biochemistry in the School of Medicine. Dr. Merrick's education includes a B. S. degree from Yale University, M. S. and Ph. D. degrees from the University of Georgia, and post-doctoral work at the NIH where he began his studies on the mechanism of protein synthesis initiation. In 1978 he moved to Case Western Reserve University where he established his independent studies on protein synthesis. To date, he has published over 200 articles on the mechanism and regulation of eukaryotic protein synthesis. At CWRU, he has participated in teaching undergraduates, graduate students and medical students. Within the medical school curriculum, he was the Committee Chair for Biochemistry for 16 years and the Curriculum Leadership Council Chair for 3 years. Additionally he has helped develop the undergraduate Biochemistry major, and the two dual degree programs, the JD/MS in Biochemistry and the MD/MS in Biomedical Investigation. Dr. Merrick has been the Graduate Advisor for the Biochemistry Department for 25 years and has served on numerous University and SOM committees. He has also served on national committees (NIH study section, AAMC Advisory Board, editorial boards, etc.) and most recently was the Chair for the Public Affairs Advisory Council for the American Society for Biochemistry and Molecular Biology. He has been a keynote speaker at international meetings in his field and in 2002 was given the Gender Equity Award from the CWRU SOM.

## 8. Weatherhead School of Management: RICHARD BUCHANAN

Professor of Design, Management and Information Systems at the Weatherhead School of Management. Richard Buchanan joined the faculty of CWRU in 2008. Before that he was Professor of Design and Head of the School of Design at Carnegie Mellon University, in which capacity he served for ten years. His research is in the theory and practice of design, with current emphasis on the emerging practice of Interaction Design and Service Design as well as the uses of design to shape and transform organizations. At the Weatherhead he teaches the capstone MBA course, a studio and field-based course called "Design in Management: Concepts, Practices, and Products." He also teaches in the Doctor of Management program and the Executive MBA program. He has also taught in the SAGES program. He is Co-Editor of Design Issues: A journal of history, theory, criticism, published by MIT Press and now with editorial offices at the Weatherhead. MIT Press recently selected Design Issues as one of the four most influential journals published by the Press since its founding 150 years ago. Professor Buchanan served two terms as President of the Design Research Society, the international learned society of the design research community, with offices located in the United Kingdom. He has served as an advisor and mentor on the redesign of the Australian taxation system. In the past decade he received the largest contract ever let to a school of design in the United States for a transformation project at the U.S. Postal Service. He also was co-principal investigator on the first research grant given by the National Science Foundation to study the work of industrial design. The project focused on industrial design and its relation to engineering and marketing disciplines. Buchanan is a frequent keynote speaker at conferences around the world, most recently in Beijing, Milan, Manizales (Columbia), Boulder, Savannah, New Delhi, and Jeju Island (ROK). In 2009 he received an honorary doctorate from the University of Montreal for his contributions to the theory and practice of design. Buchanan received his A.B. and Ph.D. from the Committee on the Analysis of Ideas and the Study of Methods at the University of Chicago. This is one of the famous interdisciplinary committees for which Chicago is well known.

This letter is written to express my enthusiastic support for establishing a dual degree program consisting of an MSN and PhD to be conferred by the schools of nursing and graduate studies, respectively. The key advantage of this dual degree program is that it will facilitate the completion of an MSN degree for BSN to PhD students who want to obtain an MSN degree in a specialized area along the way. Advanced knowledge within a clinical specialty will enrich the BSN to PhD student's potential for completing scientific research that will lead to the development of new knowledge that will advance and transform future nursing practice. The combined MSN/PhD degree program would make it possible to complete both degrees in a minimum of 5 years (depending on specialty area). The proposed overlap of a maximum of eight credits would shorten the time frame for completing both degrees by one semester.

This proposal has been presented and discussed within several faculty and program meetings, including the School of Nursing's PhD Council and among faculty who teach in the specialized MSN courses. The proposal was presented to the full faculty on December 6, 2011 and received an overwhelming majority vote for its approval to move forward. Please initiate the approval process for the $\mathrm{MSN} / \mathrm{PhD}$ program and feel free to let me know if additional information is needed.

Sincerely,


Mary E. Kerr, PhD, RN, FAAN

## MSN / PhD in Nursing Dual Degree Proposal - REVISED

This document contains a proposal for a dual degree between the School of Nursing (MSN degree) and the School of Graduate Studies (PhD in nursing degree).

## Justification

In 2008, the Frances Payne Bolton School of Nursing (FPBSON), Case Western Reserve University (CWRU) celebrated 85 years of excellence in nursing education, based on Congresswoman Frances P. Bolton's philosophy of the need for a strong scientific base for nursing practice. The Bolton School's tradition of leadership and strength in nursing research began in 1963, when a Faculty Research Development Grant funded by the Division of Nursing, was received to foster and promote a climate of inquiry appropriate for a school of professional nursing. Followed by the Nurse Scientist Training Program in the 1970's and the receipt of a Nursing Research Emphasis Grant for Doctoral Programs in the 1980's, research and doctoral study were established at the School. Our faculty's research has grown in breadth and depth since then. We have a 15-year history of being a top tier school of nursing nationally in NIH funding and experience with institutional research training grants.

In 1972, the Doctor of Philosophy (PhD) in nursing program at CWRU began. The purpose of this pioneering program was to expand and extend nursing science. PhD study builds on clinical expertise in nursing and development of research competence toward the improvement of nursing practice and health care. The PhD in Nursing is awarded in recognition of depth of knowledge in an area of nursing science, a comprehensive understanding of related content, and demonstrated ability to engage in scholarship and independent investigation. Besides a traditional semester-format PhD program, a summer PhD program has existed for over 20 years. Additionally, for nearly two decades, students have been admitted into our BSN to PhD program. More recently, a fast-track PhD program has been developed for BSN nurses to pursue a PhD degree without requiring them to earn a masters degree in nursing.

The FPBSON offers the Master of Science in Nursing (MSN) degree in 12 major areas of specialization. The MSN program was begun in 1938 and has the distinction of being the home of the first acute care Nurse Practitioner (NP) program and the first Flight Nursing program. Although the MSN degree is an essential prerequisite for the DNP degree, it is not required for the PhD. However, since the inception of the revised, fast-track BSN to PhD program in fall 2002, approximately $40 \%$ of the students who have enrolled in our BSN to PhD program, have chosen to complete the MSN degree along the way. However, because a combined MSN/PhD program does not currently exist, students were expected to complete all course requirements for each of the two degree programs.

Faculty at the FPBSON believe that students admitted to the BSN to PhD program (including those from FPB and those from other Universities) are highly motivated and qualified for successfully achieving their ultimate career goal as a future nurse scientist. And, one major aim of the BSN to PhD is to prepare nurse scientists more quickly in order to facilitate a longer research trajectory. Hence, requiring that they complete all course requirements for both programs prolongs their educational program and postpones their ability to begin careers as independent researchers. Therefore, the dual degree program that we are proposing, the combined MSN/PhD degree will facilitate earlier completion of the PhD degree with the completion of the MSN degree during which BSN to PhD students will obtain knowledge in one of the 12 specialized areas of nursing. Advanced knowledge within a clinical specialty will enrich the BSN to PhD student's potential for completing scientific research that will lead to the development of new knowledge that will advance and transform future nursing practice.

## PhD in Nursing Curriculum and Structure

Course Requirements. The core courses constituting the PhD in nursing curriculum include courses in knowledge development and theory, research methods and statistics, and specialized, related courses pertinent to the student's research interests (Table 1). Courses are designed to help students develop in-depth knowledge in a focused area of research that is important to nursing practice. This knowledge includes the state of the evidence related to their focal area as well as ways to measure and analyze individual, family, social, environmental, and organizational variables that may influence clinical outcomes in that focal area.

## Table 1. Required Courses for the PhD in nursing program

| Content Areas | Required Courses and Credits |
| :--- | :--- |
| Knowledge Development <br> and Theory (6 credits) | NURS 506: Nursing Epistemology (3 credits) |
|  | Research Methods |
|  |  |$\quad$ NURS 511: Strategies for Theory Development (3 credits)

PhD courses in nursing are conducted in a seminar format. The faculty member and students select appropriate readings for the topics to be discussed each week. Application of course content to the student's research interest is facilitated through class discussion and course assignments. All assignments provide students the opportunity to apply the skills learned in the course to their area of interest. For example, in research methods courses, students critique published research, write an integrative review of research in their areas of interest, and design a research study. In theory courses, students participate in scholarly debates about issues in knowledge development in nursing, discuss the gaps and knowledge development needs in their area of interest, and write a paper using a theory construction method (concept, statement, or theory analysis). In the statistics courses, students critique application and interpretation of published research and practice data analysis skills using faculty datasets. The faculty provides feedback to students about written work and is available to discuss issues with them. Papers written by students during all required courses follow "instructions for authors" for manuscripts for publication in professional journals, students are encouraged to submit them, and many students have been successful in publishing these papers.

At the end of each course, students evaluate the course and the faculty member; these evaluations are summarized by secretarial support staff. Course evaluations are used by faculty to identify the need for course modifications and are the focus of the end of semester report to the PhD Council that is the faculty oversight committee for the program. Evaluations of teaching performance also are an important part of yearly faculty review and promotion and tenure consideration.

Each nursing PhD student's program is tailored to meet his /her specific research interests and learning needs. Students select the NURS 615: Topical Seminar in Health Care Research courses to develop expertise in their area of research interest. Courses may also be taken from outside the FPBSON in the student's research area. Such courses are identified as substantive in nature and are selected to prepare students to ask cutting edge questions about phenomena of interest to nursing and to design independent research to answer these questions. Students can elect to take additional credits using the NURS 601: Independent Study mechanism to study a phenomenon in more depth than is possible in a classroom setting or to work with a faculty member in another discipline around a specific issue. This mechanism has been very successful for students who have wanted to learn to conduct animal studies, perform specific lab assays, and use equipment to measure pulmonary mechanics, or conduct secondary analyses with large, preexisting national databases (i.e., Census data). Students who use NURS 601 credits to work with faculty in other disciplines have had the added benefit of interacting with doctoral students in these other disciplines. Faculty members in other disciplines who supervise NURS 601 often serve as the fourth member on the student's dissertation committee.

Required Research Practicum. A 240-hour research practicum is required before taking the candidacy examination, usually during the first and second years of full time study. The research process is complex and course work provides the student with theoretical understanding. The integration of research concepts and their application is supplemented through this practical experience, which provides the hands on experience in the conduct of a research study under the guidance of a faculty mentor. The objectives for the research practicum are developed by the academic advisor, student, and faculty mentor with whom the student will be working and are approved by the Associate Dean for Doctoral Education. The research practicum often initiates a close collaborative working relationship between the student and the faculty that continues throughout the student's program of study. Outcomes of the research practicum experience typically include presentations and publications with faculty. All PhD students are encouraged to publish at least one manuscript during their doctoral program.

Research Proposal Development. Upon completion of required courses, including the four courses specifically relevant to teaching (described below), PhD students must pass an oral candidacy exam and defend a written research proposal. At this time, PhD students are enrolled in NURS 671: Proposal Development. Because students are working full time on the development of a proposal, they are considered as full time students even if enrolled for one credit. In NURS 671, the PhD student begins their proposal development. First, the student selects a faculty member to chair the candidacy committee, often the student's academic advisor. To be eligible to chair a committee, faculty must have served as a member of two candidacy committees and have documented expertise in the student's substantive area. In consultation with the candidacy chair, the student selects two additional faculty members from the FPBSON to serve on the committee, and the combination of expertise provided by these members will support the student's substantive interest and methodological needs. For example, a student interested in cardiac patients with diabetes could combine the expertise of a cardiovascular faculty researcher with the expertise of a faculty diabetes researcher. A fourth faculty member from CWRU, but outside the FPBSON, is also selected for the dissertation committee in consultation with the chair. To serve as the fourth member, the CWRU faculty member must hold a regular faculty appointment at CWRU. The inclusion of clinical or adjunct faculty must be approved by the Associate Dean for Doctoral Education and the Dean for Graduate Studies.

The committee composition is submitted for approval to the Associate Dean for Doctoral Education and the Dean for Graduate Studies to ensure that the committee has the necessary substantive and methodological expertise to conduct the candidacy exam and proposal defense and supervise the dissertation research. When registered for NURS 671, the student works closely with the candidacy chair to develop a written research proposal and when the proposal is sufficiently developed, the oral candidacy examination and proposal defense are held. The examination and proposal provide evidence of the student's knowledge and ability to synthesize and apply research methodologies and existing knowledge. The oral exam focuses on the nursing discipline, research methods, statistics, and substantive knowledge. Upon successful completion of the candidacy exam, students progress to candidate status. In a dissertation proposal defense, the candidate defends the research proposal and following its approval, dissertation research is begun.

Doctoral Dissertation. Following advancement to candidacy and successful defense of the research proposal, students begin work on their dissertation (NURS 701: Dissertation). During the semester after advancement to candidacy, the student submits the proposal for human subjects review, obtains permission to use sites for recruitment of subjects, refines data collection instruments, and begins data collection. Starting the dissertation process requires significant input from the student's chair, and students may register for more dissertation credits in that semester. In subsequent semesters, students register for NURS 701 until their dissertation defense. The dissertation is an independent research study designed by the student in collaboration with the 4 -member committee that is approved by the Associate Dean for Doctoral Education and CWRU School of Graduate Studies. The dissertation must be a significant contribution to existing nursing knowledge and suitable for publication in a peer reviewed journal or book. The written dissertation is evidence of their ability to conduct independent research. Students must prepare their own dissertations; joint dissertations are not permitted. The procedures and written dissertation must conform to CWRU School of Graduate Studies regulations. However, students have the opportunity to use a manuscript option to the traditional chapter format for the dissertation document. The manuscripts must be scholarly and publishable in highly regarded professional journals, as approved by the student's dissertation committee. That is to say, the manuscript(s) submitted in lieu of the traditional dissertation must meet the requirements for publication in a scholarly nursing research journal and be ready for submission prior to graduation. All requirements for the PhD degree must be completed within 5 years from first registration for dissertation credits.

## MSN Curriculum and Structure

The FPBSON provides several entry options to the MSN program, including the traditional path for those with a BSN. The MSN program itself requires a minimum of 36 credit hours to graduate, but the majors require an average of 40 credit hours of graduate credit for the student who enters with a BSN degree. In most cases, courses are completed in three or four semesters (which may include the summer). The MSN program offers 12 different majors / areas of clinical specialization. Courses are offered in traditional and nontraditional formats, including intensive, web-based, and weekend courses. Some majors can be completed in a semi-distance format with limited trips to campus, making the MSN program feasible for students not living in the area. Individualized study plans are designed to meet individual clinical interests, learning needs, and career goals. Students can choose either a part-time or full-time program, with full-time consisting of 9 or more credits per semester and part-time being anything less. Clinical and research experiences are an integral part of the MSN program; most majors require a minimum of 500 clinical hours, though some programs require more. To be awarded an MSN degree, the student must have a cumulative GPA of 3.0 and received a satisfactory grade of $B$ or better in all nursing courses taken for credit as a MSN student. Degree requirements must be completed within 5 years of initial enrollment.

## Course Requirements of the MSN program.

As described above, students in the MSN program choose from several different majors, but all students must take ten core courses and must complete the required number of credit hours as well as clinical hours for the major area of specialization they select. The ten core courses comprise the core areas of professional development and scientific inquiry. Three additional core courses are required for those majors that prepare students as nurse practitioners. The general curriculum pattern constituting the core requirements is displayed in table 2.

Table 2. Core Curriculum for all MSN Majors

| Professional Development Core (6 courses) |  |  |
| :--- | :--- | :--- |
| Course Number | Course Title | Credit hours |
| NURS 443A | Collaboration and consultation | 1 |
| NURS 443B | Role development | 1 |
| NURS 443C | Teaching and learning | 1 |
| NURS 444A | Ethical issues | 1 |
| NURS 444B | Finance issues | 1 |
| NURS 444C | Policy and legal issues | 1 |
| Scientific / Inquiry Core (4 courses) | Credit hours |  |
| Course Number | Course Title | 3 |
| NURS 405 | Theoretical foundations | 3 |
| NURS 425 | Research process | 2 |
| NURS 502 | Evidence-based practice | 1 |
| NURS 503 | Inquiry practicum |  |
| Nursing Practice Core (3 courses)* | Credit hours |  |
| Course Number | Course Title | 3 |
| NURS 430 | Pharmacology and therapeutics | 4 |
| NURS 453 | Physiological foundations | 3 |
| NURS 459 | Integrated assessment |  |

In the MSN program, the 12 major areas of specialization include six nurse practitioner (NP) majors (acute care, adult/gerontology, pediatrics, neonatal, family, and women's health), two blended role majors (adult oncology and family systems psychiatric mental health), and four others (public health, nurse anesthesia, nurse midwifery, and informatics). Blending of two majors and joint MSN degrees with business administration, anthropology, bioethics, and public health are also possible. Sample program plans across the various majors appear in Tables 314. Tables 3-8 describe sample FT program plans for the six NP majors; tables 9-10 list courses for sample FT plans for the two blended CNS/NP programs; and tables 11-14 provide sample for FT study for the four other nursing majors. Although space does not permit the inclusion of sample PT study plans, PT study for all MSN majors is also possible.

Table 3 presents a sample program plan for FT study in the Acute Care NP (ACNP) major. This major requires at least 39 credit hours of coursework and 600 clinical hours. Recent experience in adult intensive care (ICU) nursing is required. Within this major, there are two subspecialties: flight nursing and cardiovascular nursing.

Table 3. Sample FT study plan for ACNP

| Fall Semester - Year 1 | Spring Semester -Year 1 |  |
| :--- | :--- | :--- |
| Theoretical foundations (3) | Pharmacology/therapeutics (3) |  |
| Theoretical foundations of acute <br> nursing care (4) | Acute health problems (6) |  |
| Physiological foundations (4) | Research process (3) |  |
| Assessment (3) | Collaboration/consultation (1) |  |
| Fall Semester - Year 2 | Role development (1) |  |
| Epring Semester - Year 2 (option) |  |  |
| Evidence-based practice (2) | Flight Nursing |  |
| Inquiry practicum (1) | Flight nursing seminar 1 (1) | Special assessment (2) |
| Management acutely ill adults (4) | Emergent care of children (2) | Cardiovascular seminar I (1) |
| Ethical issues (1) | Flight nursing seminar II (1) | Cardiovascular seminar II (1) |
| Finance issues (1) | Advanced internship (1-5) | Advanced internship (1-5) |
| Policy and legal issues (1) |  |  |

Table 4 presents a sample program plan for FT study in the neonatal NP (NNP) major. Required for this major is two years of NICU nursing experience. The NNP major requires 40 credit hours of coursework, plus about 600 clinical hours. Course work is usually completed within 24 months (4 semesters) for FT students.

Table 4. Sample FT study plan for NNP

| Fall Semester - Year 1 | Spring Semester -Year 1 | Summer Semester -Year 1 |
| :--- | :--- | :--- |
| Theoretical foundations (3) | Pharmacology / therapeutics (3) | Evidence-based practice (2) |
| Newborn assessment (3) | Neonatal NP II (4) | Neonatal NP III(3) |
| Physiological foundations (4) | Research process (3) |  |
| Neonatal NP I (3) | Collaboration/consultation (1) |  |
|  | Role development (1) |  |
| Fall Semester - Year 2 |  |  |
| Neonatal NP IV (5) |  |  |
| Inquiry practicum (1) |  |  |
| Ethical issues (1) |  |  |
| Finance issues (1) |  |  |
| Policy and legal issues (1) |  |  |

Table 5 presents a sample program plan for FT study in the pediatric NP (PNP) major. The PNP major requires 40 credit hours of coursework, plus about 600 clinical hours. Coursework is usually completed within 18 months ( 4 semesters) for FT students; courses are offered in a distance-friendly format that requires about 8 visits to campus. Within this major, subspecialization in cardiovascular nursing is possible.

Table 5. Sample FT study plan for PNP

| Fall Semester - Year 1 | Spring Semester -Year 1 | Summer Semester - Year 1 |
| :--- | :--- | :--- |
| Theoretical foundations (3) | Pharmacology / therapeutics (3) | Evidence-based practice (2) |
| Pediatric development and <br> health promotion (2) | Acute and common problems of <br> the pediatric patient (6) | Collaboration/consultation (1) |
| Health promotion (2) | Research process (3) | Role development (1) |
| Physiological foundations (4) |  | Teaching and learning (1) |
| Assessment (3) | Spring Semester-Year 2 |  |
| Fall Semester - Year 2 | Cardiovascular subspecialty |  |$\quad$.

Table 6 presents a sample program plan for FT study in the adult/gerontology NP major. This major requires 41 hours of coursework, plus about 600 clinical hours. Coursework is usually completed within 18 months ( 4 semesters) for FT students; courses are offered in a distancefriendly format that requires about 8 visits to campus. Within this major, there are two subspecialties: cardiovascular nursing and infection control.

Table 6. Sample FT study plan for adult / gerontology NP

| Fall Semester - Year 1 | Spring Semester -Year 1 | Summer Semester -Year 1 |
| :---: | :---: | :---: |
| Theoretical foundations (3) | Pharmacology/therapeutics (3) E | Evidence-based practice (2) |
| Physiological foundations (4) | Acute/common problems (5) P | Primary care of older adults (4) |
| Health promotion (2) | Research process (3) R | Role development (1) |
| Assessment (3) | Collaboration/consultation (1) T | Teaching and learning (1) |
| Fall Semester - Year 2 | Spring Semester -Year 2 (option) |  |
| Complex management of chronic illness (5) | Infection control | Cardiovascular |
| Inquiry practicum (1) | Epidemiology (3) | Assessment (2) |
| Ethical issues (1) | Infectious disease epidemiology (3) | (3) Cardiovascular seminar I (1) |
| Finance issues (1) | Infection control (3) | Cardiovascular seminar II (1) |
| Policy and legal issues (1) | Infection control practicum (1) | Advanced internship (1-5) |

Table 7 presents a sample program plan for FT study in the women's health NP (WHNP) major. This major requires 38 credit hours of coursework, and 600 clinical hours. Coursework is usually completed within 12 months ( 4 semesters) for FT students; some courses are offered in an intensive format that requires limited visits to campus.

Table 7. Sample FT study plan for WHNP

| Fall Semester - Year 1 | Spring Semester -Year 1 | Summer Semester -Yr 1 |
| :--- | :--- | :--- |
| Theoretical foundations (3) | Pharmacology / therapeutics (3) | Primary care of women (4) |
| Health promotion (2) | Childbearing family (4) |  |
| Physiological foundations (4) | Research process (3) |  |
| Assessment (3) |  |  |
| Well women health care (3) |  |  |
| Fall Semester - Year 2 |  |  |
| Evidence-based practice (2) |  |  |
| Inquiry practicum (1) |  |  |
| Collaboration/consultation (1) |  |  |
| Role development (1) |  |  |
| Teaching and learning (1) |  |  |
| Ethical issues (1) |  |  |
| Finance issues (1) |  |  |
| Policy and legal issues (1) |  |  |

Table 8 presents a sample program plan for FT study in the family NP (FNP) major. The FNP major requires 40 credit hours of coursework and about 600 clinical hours. Coursework is usually completed in 18 months ( 4 semesters) for FT students; courses are offered in a distance-friendly format that requires only 8 visits to campus. Subspecialization in cardiovascular nursing is possible.

Table 8. Sample FT study plan for FNP

| Fall Semester - Year 1 |  | Spring Semester -Year 1 |
| :--- | :--- | :--- |
| Summer Semester - Year 1 |  |  |
| Theoretical foundations (3) | Pharmacology/therapeutics (3) | Evidence-based practice (2) |
| Health promotion (2) | Adult clinical management (5) | Collaboration/consultation (1) |
| Physiological foundations (4) | Research process (3) | Family health nursing (4) |
| Assessment (3) | Spring Semester -Year 2 - Cardiovascular subspecialty |  |
| Fall Semester - Year 2 | Assessment (3) |  |
| Child and adolescent clinical <br> management (4) | Cardiovascular seminar 1 (1) |  |
| Inquiry practicum (1) | Cardiovascular seminar 11 (1) |  |
| Role development (1) | Advanced internship (1-5) |  |
| Teaching and learning (1) |  |  |
| Ethical issues (1) |  |  |
| Finance issues (1) |  |  |
| Policy and legal issues (1) |  |  |

Table 9 presents a sample program plan for FT study in the blended role program focused on family systems psychiatric and mental health (PMH) nursing. Graduates are eligible for certification as a PMH nursing CNS and NP. The major requires 45 credit hours of coursework and 720 clinical hours. Coursework is usually completed within 4 semesters for FT students.

Table 9. Sample FT study plan for psychiatric and mental health nursing CNS / NP

| Fall Semester - Year 1 | Spring Semester- Year 1 | Summer Semester - Year 1 |
| :--- | :--- | :--- |
| Theoretical foundations (3) | Integrated assessment (3) | Research process (3) |
| Physiological foundations (4) | Pharmacology/therapeutics (3) | Individual / group modalities (3) |
| Advanced psychopathology (child / <br> adolescent) (2) | Psychopharmacology (2) | Practicum and supervision: <br> individual / group (2) |
| General systems theory: <br> foundations for practice (2) | Advanced psychopathology <br> (adult / older adult) (2) |  |
| Advanced seminar: blended role (1) | Family systems theory (2) |  |
| Fall Semester-Year 2 | Family systems: Integration(1) |  |
| Evidence-based practice (2) |  |  |
| Inquiry practicum (1) |  |  |
| Modalities for family practice (3) |  |  |
| Theory for practice, supervision, <br> consultation, and education (3) |  |  |
| Practicum and supervision (3) |  |  |
| Management advanced practice (3) |  |  |

Table 10 presents a sample program plan for FT study in adult oncology / palliative care. Graduates of this program are eligible for adult NP certification and/or oncology NP certification, oncology CNS certification, or certification in palliative care. Entry into this major requires one year of oncology or medical-surgical nursing experience. The major requires 40-41 credit hours of coursework, plus about 500 clinical hours. Coursework is usually completed within 24 months (4 semesters) for FT students.

Table 10. Sample FT study plan for advanced practice adult oncology / palliative care NP

| Fall Semester - Year 1 | Spring Semester -Year 1 |
| :--- | :--- |
| Physiological foundations (4) | Pharmacology / therapeutics (3) |
| Assessment (3) | Adult clinical management (5) |
| Individual counseling (1) | Theoretical foundations (3) |
| Collaboration/consultation (1) |  |
| Role development (1) |  |
| Teaching and learning (1) |  |
| Fall Semester - Year 2 |  |
| Advanced oncology nursing (4) | Evidence-based practice (2) |
| Symptom management I (1) | Inquiry practicum (1) |
| Research process (3) | Advanced practice in oncology and palliative care nursing (4) |
| Ethical issues (1) | Symptom management II (1) |
| Finance issues (1) |  |
| Policy and legal issues (1) |  |

Table 11 presents a sample program plan for FT study in the advanced public health nursing major. This major requires up to 40.5 credit hours of coursework and about 500 clinical hours. For FT students, the coursework is usually completed within 24 months ( 4 semesters). Subspecialization in infection control is possible.

Table 11. Sample FT study plan for the advanced public health nursing major

| Fall Semester -Year 1 | Spring Semester - Year 1 | Summer Semester - Year 1 |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Theoretical foundations (3) | Research process (3) | Evidence-based practice (2) |  |  |  |
| Health promotion (2) | Health policy (3) | Collaboration/consultation (1) |  |  |  |
| PH nursing: Foundations (3) | Leadership in organizations (4) | Role development (1) |  |  |  |
| Collaboration/administration in <br> health care delivery systems (3) | PH nursing: Assessment and <br> planning (2) | Teaching / learning (1) |  |  |  |
| Epidemiology (3) |  | Action research (1) |  |  |  |
|  | Fall Semester - Year 2 |  |  | Spring Semester - Year 2 | PH nursing: program evaluation (2) |
| Inquiry practicum (1) | Infection Control <br> Subspecialty |  |  |  |  |
| Health care delivery: legal and <br> ethical issues (1) | Epidemiology (3) |  |  |  |  |
| PH nursing clinical (1.5-4.5) | Infectious disease (3) |  |  |  |  |
|  | Infection control (3) |  |  |  |  |
|  | Infection control practicum (1) |  |  |  |  |

Table 12 presents a sample program plan for FT study in the nurse midwifery major, Nurse midwife students must complete 48 credits of coursework and work with a clinical preceptor in outpatient, in-patient, and out-of-hospital settings to provide optimal care to women in the antepartum, intrapartum, and postpartum periods. Graduates are eligible for certification by the American Midwifery Certification Board. With the addition of 3 clinical hours, students are eligible for dual certification in Women's Health

Table 12. Sample FT study plan for the nurse midwifery major

| Fall Semester - Year 1 | Spring Semester -Year 1 | Summer Semester -Year 1 |
| :--- | :--- | :--- |
| Theoretical foundations (3) | Pharmacology / therapeutics (3) | Primary care for women (4) |
| Physiological foundations (4) | The childbearing family (4) |  |
| Assessment (3) | Research process (3) |  |
| Well women health care (3) | Collaboration/consultation (1) |  |
|  | Teaching and learning (1) |  |
| Fall Semester - Year 2 | Spring Semester -Year 2 |  |
| Labor and birth (5) | Advanced nurse midwifery (6) |  |
| Newborn assessment (1) | Inquiry practicum (1) |  |
| Health promotion (2) | Ethical issues (1) |  |
| Evidence-based practice (2) | Finance issues (1) |  |

Table 13 presents a sample program plan for FT study in the nursing informatics major. The nursing informatics major requires 37 credits of coursework (many online), plus a 500 -hour internship to obtain practical experience as a nursing informatics specialist (NIS) in clinical, educational, research, and administrative settings. Coursework is usually completed within 3 semesters, and the 500-hour internship may be credited toward the required 2,000 hours for certification as a Nursing Informatics Specialist through the ANCC.

Table 13. Sample FT study plan for nursing informatics major

| Fall Semester - Year 1 | Spring Semester -Year 1 |
| :--- | :--- |
| Organizational theory (3) | Advanced informatics (4) |
| Intro to information systems (3) | Research process (3) |
| Theoretical foundations of nursing <br> informatics (4) | Evidence-based practice (2) |
| Theoretical foundations (3) | Collaboration/consultation (1) |
| Fall Semester - Year 2 | Teaching and learning (1) |
| Internship in informatics (5) | Role development (1) |
| Health care information systems (3) |  |
| Inquiry practicum (1) |  |
| Ethical issues (1) |  |
| Finance issues (1) |  |
| Policy and legal issues (1) |  |

Table 14 presents a sample program plan for FT study in the nurse anesthesia major. This major requires 40 credit hours of coursework and over 600 clinical hours. For FT students, coursework is usually completed within 28 months. Graduates are eligible for certification by the Council on Certification of Nurse Anesthetists.

Table 14. Sample FT study plan for the nurse anesthesia major

| Fall Semester - Year 1 |  | Spring Semester -Year 1 |
| :--- | :--- | :--- |
| Principles of anesthesia (2) | Theoretical foundations (3) | Summer Semester -Year 1 |
| Pharmacological strategies (2) | Physiological responses I (2) | Physiological responses III(4) |
| Anesthesia nursing I (2) | Physiological/responses II (3) | Ethical issues (1) |
| Collaboration/consultation (1) | Anesthesia nursing II (1) | Finance issues (1) |
| Role development (1) |  | Policy and legal issues (1) |
| Teaching and learning (1) |  |  |
| Fall Semester - Year 2 | Spring Semester -Year 2 |  |
| Research process (3) | Nurse anesthesia advanced II (2) | Nurse aner Semesteria -Year 2 |
| Physiological responses IV (3) | Evidence-based practice (2) |  |
| Nurse anesthesia advanced (1) | Inquiry practicum (1) |  |
| Fall Semester - Year 3 |  |  |
| Nurse anesthesia advanced (1) |  |  |

## Dual Degree Curriculum:

Students enrolling in the combined MSN / PhD nursing program complete coursework in primarily a sequential manner with MSN coursework preceding PhD level courses. However, if required pre-requisites for a PhD course are met, BSN to PhD students may take MSN and PhD courses concurrently. An overlap of up to 8 credits will be allowed. Table 15 shows the course overlap between the MSN and PhD nursing programs. To be clear, the $\underline{8}$ overlapping credits does not involve the nurse practice core required of MSN student in the nurse practitioner specialty programs or any other clinical content courses required of respective MSN majors. The course overlap is restricted to courses comprising the scientific inquiry and professional development course as shown in table 15 below. The table shows the MSN courses, which we have identified to have overlapping content with PhD courses; up to an 8 credit overlap for the combined MSN / PhD program is proposed. Thus, the PhD level theory development (NURS 511), research methods (NURS 530/531) and health policy (NURS 609) courses as listed in Table 15 will "double count" for both the MSN and PhD nursing programs.

Table 15. Core Courses across all MSN Majors and overlap with PhD courses

| MSN core courses | PhD nursing courses | Overlap |
| :--- | :--- | :---: |
| NURS 405: Theoretical foundations (3) | NURS 511: Theory development (3) | 3 |
| NURS 425: Research process (3) | NURS 530/531: Research methods (6) | 3 |
| NURS 502: Evidence based practice (2) |  |  |
| NURS 503: Inquiry practicum (1) | Research practicum | 1 |
| NURS 443A: Collaboration/ consultation (1) |  |  |
| NURS 443B: Role development (1) |  |  |
| NURS 443C: Teaching and learning (1) |  | 1 |
| NURS 444A: Ethical issues (1) |  |  |
| NURS 444B: Finance issues (1) |  |  |
| NURS 444C: Policy/ legal issues (1) | NURS 609: Health policy (3) |  |

## Sample MSN / PhD program plans

Sample program plans for BSN to PhD students who wish to complete the MSN degree along the way appears in the following tables. Table 16 provides a sample program plan for the combined MSN/PhD for the acute care nurse practitioner (ACNP) MSN specialty with subspecialty in cardiovascular nursing. Courses appearing in bolded font and a single asterisk (*) are PhD nursing courses. Those bolded courses with two asterisks (**) are PhD courses to be taken in place of MSN courses constituting an 8 credit hour overlap. Thus, students enrolled in the MSN/PhD program will not take 8 credits that MSN students who are not in the combined program are otherwise required to take. As shown in the table, completion of the MSN degree with the ACNP focus (cardiovascular subspecialty) and the PhD nursing degree is expected to take a minimum of 5 years, with the MSN degree awarded after the third year.

Table 16. Sample MSN - PhD program plan for ACNP with cardiovascular subspecialty

| Fall Semester - Year 1 | Spring Semester -Year 1 |
| :--- | :--- |
| Theoretical foundations of acute nursing care (4) | Pharmacology/therapeutics (3) |
| Physiological foundations (4) | Acute health problems (6) |
| Assessment (3) | Theory development (3) ${ }^{* *}$ |
| Basic statistics (3) * | Collaboration/consultation (1) |
|  | Role development (1) |


| Fall Semester - Year 2 | Spring Semester - Year 2 |
| :--- | :--- |
| Management acutely ill adults (4) | Special assessment (2) |
| Finance issues (1) | Cardiovascular seminar I (1) |
| Role development (1) | Cardiovascular seminar II (1) |
| Health policy (3) ** | Advanced internship (1-5) |
| Evidence-based practice (2) |  |
| Ethical issues (1) |  |
| Fall Semester - Year 3 |  |
| Epistemology (3) * | Spring Semester - Year 3 |
| Research methods I (3) ** | Research methods II (3) ** |
| Linear models (3) | Qualitative methods (3) |
| Fall Semester - Year 4 |  |
| Topical Seminar (3) * | Multivariate analysis (3) * |
| Elective (3) * | Spring Semester - Year 4 |
| Proposal development (3) * | Proposal development (1) * |
| Fall Semester - Year 5 |  |
| Dissertation (9) * | Topical Seminar (3) * |

Table 17 provides a sample program plan for the combined MSN/PhD for the advanced practice adult oncology / palliative care nurse practitioner MSN specialty. Again, courses appearing in bolded font and a single asterisk ( ${ }^{*}$ ) are PhD nursing courses. Those bolded courses with two asterisks (**) are PhD courses to be taken in place of MSN courses constituting an 8 credit overlap. Thus, students enrolled in the MSN/PhD program will not take 8 credits that MSN student s who are not in the combined program are otherwise required to take. As shown in the table, completion of the MSN degree with the oncology / palliative care focus and the PhD nursing degree is expected to take a minimum of 5 years, with the MSN degree awarded after the second year. Of note is the fact that the awarding of the MSN degree in this MSN specialty takes place one year sooner than the ACNP specialty described above because of course sequencing and / or clinical requirements for the MSN degree.

Table 17. Sample MSN - PhD program plan for advanced practice adult oncology / palliative care NP

| Fall Semester - Year 1 | Spring Semester -Year 1 |
| :--- | :--- |
| Physiological foundations (4) | Pharmacology / therapeutics (3) |
| Assessment (3) | Adult clinical management (5) |
| Individual counseling (1) | Theory development (3) ** |
| Collaboration/consultation (1) |  |
| Role development (1) |  |
| Teaching and learning (1) |  |
| Fall Semester - Year 2 |  |
| Advanced oncology nursing (4) | Evidence-based practice (2) |
| Symptom management I (1) | Health policy (3) ** |
| Basic statistics (3) * | Advanced practice in oncology and palliative care nursing (4) |
| Ethical issues (1) | Symptom management II (1) |
| Finance issues (1) |  |
| Fall Semester - Year 3 |  |
| Epistemology (3) * | Research methods II (3) ${ }^{* *}$ |
| Research methods I (3)** | Qualitative methods (3) |
| Linear models (3) ${ }^{*}$ | Multivariate analysis (3) ${ }^{*}$ |


| Fall Semester - Year 4 | Spring Semester - Year 4 |
| :--- | :--- |
| Elective (3) | Topical Seminar (3) |
| Topical Seminar (3) ${ }^{*}$ | Proposal development (1) ${ }^{*}$ |
| Proposal development (3) ${ }^{*}$ | Spring Semester - Year 5 |
| Fall Semester - Year 5 |  |
| Dissertation (9) |  |

## Dual Degree Student Advising

Dual degree students will be advised concerning matters related to the MSN degree by the Director of the MSN program in the School of Nursing. For matters pertaining to the PhD in nursing degree, they will be advised by the Director of the PhD in nursing program. Together, the two program directors will work with two co-advisors (one from MSN and one from PhD program) to ensure that students enroll in the required courses to meet requirements for the two degrees. However, because students enrolled in the combined MSN/PhD program will be BSN to PhD students, these students must follow the regulations of the School of Graduate Studies and therefore must maintain a GPA of 3.0 or greater. On a biannual basis, at the end of fall and spring semesters, or more frequently if necessary, the two academic co-advisors will meet to discuss the student's progress. Students performing unsatisfactorily in either program will receive a warning to say they have e one semester to show substantial improvement. If not, they will be dismissed from the program in which their performance is poor.

## Admissions

Target enrollment in the program is expected to be from 1-3 students per academic year. Students with a BSN degree who wish to pursue the PhD nursing degree and obtain an MSN degree in a specialty area along the way will apply to both the MSN and PhD programs simultaneously. Students will therefore submit an application to the School of Nursing, which will forward materials from students who are admissible to that program, to the School of Graduate Studies for consideration for admission to the PhD nursing program. Once admitted to both programs, an academic advisor at the School of Nursing will be appointed upon recommendation of the PhD admissions committee to the Associate Dean for Doctoral Education in the School of Nursing, who will appoint and work with the academic advisor in assisting the student to develop a planned program of study.

Admission requirements include: RN license; an BSN degree (or equivalent) from an accredited program three letters of recommendation, including two from PhD prepared individuals, describing professional nursing competence and potential for success in the combined MSNPhD in nursing program and for making a significant contribution to nursing science; completion of the Graduate Record Examination, including quantitative, verbal, and writing sections; a clear statement of academic and career objectives and of how the applicant's research interest is consistent with the faculty research expertise; and successful interviews with two members of the MSN and PhD admissions committees. In addition, international applicants would be expected to report acceptable TOEFL or IELTS scores as determined by the School of Graduate Studies.

## Dissertation Committee Composition

The composition of the PhD student's dissertation committee will follow the same requirements as set forth in the Graduate Studies student handbook under the heading "Dissertation Advisory Committee" (page 12-13). Therefore, the committee will include "a minimum of four members of the university faculty, including at least one whose primary appointment is outside the student's program, department or school. The chair of the committee must be a Case Western Reserve University tenured or tenure-track faculty member in the student's program. "Other committee members may be on the non-tenure track; however, all members must meet the SGS's requirements for serving on a PhD dissertation committee. All committee members should be prepared at the doctoral level.

## Program Governance

The ultimate oversight of the combined MSN- PhD program will be done by the Associate Dean for Doctoral Education in the School of Nursing, who currently has administrative oversight over the BSN to PhD nursing program.

## Student Activities

Both the Directors of the MSN and PhD nursing program will ensure that students in the combined degree program are informed by email about activities sponsored by both graduate programs. Students will be encouraged to participate in regular School of Nursing and School of Graduate Studies activities as well as those targeted to them. Activities sponsored by the MSN program include get-togethers and dinners with faculty and student colleagues. Activities in the PhD in nursing program include gold bag luncheons, luncheons each semester with the Director of the PhD in nursing program, and the annual fall faculty and student get-together potluck dinner. Students in the PhD in nursing program also actively participate in activities sponsored by the School of Graduate studies.

## Advantages of the Combined Degree Program

There are several advantages to the students in the MSN / PhD in nursing program. The key advantage is the facilitated completion of the MSN degree for BSN to PhD students seeking to obtain an MSN degree in a specialized area along the way. The combined MSN / PhD makes it possible to complete both degrees in a minimum of 5 years (depending on specialty area). The overlap of up to 8 credits shortens the time frame for completing both degrees by one semester. With the average number of MSN credits equal to 40 and the number of credits needed to complete the PhD nursing degree equal to 57, the total number of credits for the combined MSN / PhD nursing program, including the 8 "double counted" credits, is approximately $\underline{89}$ credits.

## Funding for Students

Students in the BSN to PhD program are eligible to apply for funding through the Nurse Faculty Loan Program, which is available to all PhD students who agree to take the available courses in curriculum and instruction, testing and evaluation, and a teaching practicum. Students may also participate in funding that may become available through training grants within the school of nursing (i.e. T32 or NRSA).

## Tuition Revenue Mechanics

A written agreement about the management of tuition revenues will exist between the School of Nursing and the School of Graduate Studies. The text of this agreement appears below:

## Agreement between the School of Nursing and the School of Graduate Studies

Students who are enrolled in the combined MSN / PhD in nursing program will receive the degrees of MSN and PhD in nursing upon completion of the program. The students in this program will register and pay tuition through the School of Nursing at that school's current rate. The tuition revenue for the combined degree students will go to the School of Nursing since the courses that are taken for both the MSN and PhD programs are taught within the School of Nursing.

The amount of tuition to be charged for courses within the respective programs will depend on which program "owns" the course. For example, the charge for those courses that are listed within the MSN curriculum would reflect the per credit hour tuition rate determined by the School of Nursing for the MSN program. Likewise, the charge for those courses that are listed within the PhD curriculum would reflect the per credit hour tuition rate determined by the School of Graduate Studies

## Approval Signatures:

| Associate Dean for Doctoral Education, School of Nursing Jaclene A. Zauszniewski | Oaclerem ©. Zanagmeneter |
| :---: | :---: |
| Dean, School of Nursing Mary E. Kerr | man \& len |
| Dean, School of Graduate Studies Charles Rozek |  |

February 17, 2012

Martin Snider, Ph.D.
Chair, Graduate Studies Committee
CWRU Faculty Senate
10900 Euclid Avenue
Cleveland, OH 44106
Dear Dr. Snider:
Public health social work programs are some of the oldest dual degree programs in schools of social work in the U.S. MSASS envisions that, similar to two dozen professional graduate programs in social work, we are embarking upon expanding career options for social workers through collaboration with the Public Health degree program in the School of Medicine.

The Mandel School of Applied Social Sciences (MSASS) Faculty voted unanimously to approve a proposal for a MSSA/MPH dual degree program at a Constituent Faculty Meeting on October 11, 2010.

Two faculty members, Sharon Milligan, Associate Dean for Academic Affairs, and David Miller, Chair, Health concentration, were appointed to work on the MPH degree program and to present the dual degree program to the School of Medicine. As stated in this dual degree proposal, the Mandel School is committed to recruit and admit students from all over the U.S. with an interest in public health social work as an area of practice. In addition, we are committed to full implementation with faculty involvement in the program once it is approved.

As Dean, I affirm full support in moving this initiative forward.
Sincerely,


Grover C. Gilmore, Ph.D.
Dean and Professor
/attachment

10900 Euclid Avenue Cleveland, Ohio 44106-7164

Visitors and Deliveries 11235 Bellflower Road

Date: February 17, 2012
To: Grover C. Gilmore, Ph.D.
Dean
From: David Crampton, Ph.D. © Chair, MSASS Steering Committee

RE: Report of Vote from MSASS Constituent Faculty Meeting of October 11, 2010

The MSASS Constituent Faculty met on October 11, 2010, to consider the proposal of a joint MSSA/MPH degree program. Faculty voted to unanimously approve the proposal.

DC/tw

10900 Euclid Avenue
To: Pamela B. Davis, M.D., Ph.D. Dean, School of Medicine

Cleveland, Ohio 44106-4915
Visitors and Deliveries
Biomedical Research Bldg - Rm 113
From: Jill Barnholtz-Sloan, Ph.D. Chair, Faculty Council 2011-2012


Phone 216.368.2825
Fax 216.368.2820
http:/ / casemed.edu
Date: January 24, 2012
Re: Proposal for the Master of Science in Social Administration and Master in Public Health "Side by Side" Joint Degree Program

At its meeting on January 23, 2012, Faculty Council reviewed the proposal for the Master of Science in Social Administration and Master in Public Health "Side by Side" Joint Degree Program.

The proposed "Side by Side" Joint Degree Program leads to the award of both the Master of Science in Social Administration (MSSA) and the Master in Public Health (MPH). The Master of Science in Social Administration (MSSA) degree program at Case Western Reserve University prepares students for advanced social work practice in two concentrations for direct practice and community and social development. The social work program at MSASS, with 337 students, currently ranks in the top 10 schools of social work in the country and as the top school of social work in the state of Ohio. The MPH program is designed to prepare students to address the basic mission of public health, defined as "enhancing health in human populations through organized community effort," utilizing education, research, and community service. Public health practitioners are prepared to identify and assess health needs of different populations, and then to plan, implement, and evaluate programs to meet those needs. The "Side by Side" Joint Degree Program enables unique students to obtain graduate preparation in both complementary fields. The Mandel School of Applied Social Sciences is the administrative home school for this proposed joint degree program.

There are nearly two dozen joint social work and public health programs in the United States. Public health social work programs are some of the oldest joint programs in schools of social work in the U.S. Social work's involvement in public health has been extensive, and new roles for public health social workers continue to grow. Intervention and research strategies in both professions address the role of differential access and treatment in these other domains caused by racial and ethnic differences, socioeconomic positions, gender and sexual orientation.

Accordingly, the Faculty Council concluded the Master of Science in Social Administration and Master in Public Health dual degree program beneficial for the estimated 16 students that would be interested in enrolling per year in five years. By a vote of 33 in favor; 0 against, 0 abstain, the proposal was recommended for approval.

Please review the proposal and add any additional comments; then forward to the University Faculty Senate for its review and recommendation.

Thank you.

## Memorandum

Visitors and Deliveries
Biomedical Research Bldg - Rm 113
Phone 216.368.2825
Fax 216.368.2820
http:/ /casemed.edu
To: Gary Chottiner, Ph.D.
Chair, Faculty Senate
From: Pamela B. Davis, M.D., Ph.D
 Dean, School of Medicine

Date: January 25, 2012

Re: Proposal for the Master of Science in Social Administration and Master in Public Health "Side by Side" Joint Degree Program

Enclosed please find a proposal for the Master of Science in Social Administration and Master in Public Health "Side by Side" Joint Degree Program. The program has been recommended for approval by the Faculty Council of the School of Medicine, acting under our Bylaws for the Faculty of Medicine, and has my enthusiastic endorsement.

I understand that the process for further review includes oversight by the Faculty Senate's Graduate Studies Committee and the Faculty Senate as a whole. Please let me know if I can provide any additional information.

Thank you for your consideration.

C: (all w/o enclosures): Jill Barnholtz-Sloan, Ph.D.
Scott Frank, Ph.D.

## Proposal

# Master of Science in Social Administration and Master in Public Health "Side by Side"* Joint Degree Program 

Program Advisors:<br>David Miller and Sharon Milligan<br>Mandel School of A pplied Social Sciences<br>Sana Loue<br>Graduate Program in Public Health

## Background

The proposed joint program is consistent with the University's broader "Guidelines for Multidisciplinary Graduate and Professional Studies at Case Western Reserve University" (adopted March 1, 2005). According to these guidelines, joint degree programs "generally result in two degrees" in areas where the knowledge gained cannot be received in any one degree program.

The proposed "Side by Side" Joint Degree Program leads to the award of both the Master of Science in Social Administration (MSSA) and the Masters in Public Health (MPH). The Master of Science in Social Administration (MSSA) degree program at Case Western Reserve University prepares students for advanced social work practice in two concentrations for direct practice and community and social development. The social work program at MSASS, with 337 students, currently ranks in the top 10 schools of social work in the country and as the top school of social work in the state of Ohio. The MPH program is designed to prepare students to address the basic mission of public health, defined as "enhancing health in human populations through organized community effort," utilizing education, research, and community service. Public health practitioners are prepared to identify and assess health needs of different populations, and then to plan, implement, and evaluate programs to meet those needs. The "Side by Side" Joint Degree Program enables unique students to obtain graduate preparation in both complementary fields. The Mandel School of Applied Social Sciences is the administrative home school for this proposed joint degree program.

The impetus for this proposed joint program arises from a growing societal recognition that issues once thought to represent individual-level problems requiring individual-level interventions, such as family violence, substance use, and mental illness, are multi-level problems demanding multi-level interventions for their amelioration. The proposed joint program will equip students with a broader panoply of skills and perspectives to address such issues and will increase their marketability.

## Need

There are nearly two dozen joint social work and public health programs in the United States. Public health social work programs are some of the oldest joint programs in schools of social work in the U.S. Social work's involvement in public health has been extensive, and new roles for public health social workers continue to grow. Social work and public health share an historic mission to promote social justice and to protect and enhance human and social well-being. The issues that face children and families - e.g., aging, substance abuse, mental and physical health policies and practices - are of mutual importance to both professions. Intervention and research strategies in both professions address the role of differential access and treatment in these other domains caused by racial and ethnic differences, socioeconomic positions, gender and sexual orientation.

[^1]The career options for joint degree holders are numerous and varied. Completing both degrees prepares graduates with the flexibility of providing leadership in professional practice in prevention and promotion, program planning, and development and evaluation within communities and organizations in a broad range of health and human service activities.

Case Western Reserve University is poised both geographically and academically to assume a leading role among joint MPH-MSSA programs and to recruit an outstanding cadre of students on a continuing basis to the proposed program. As indicated above, MSASS is one of the top 10 social work schools nationally and the leading school of social work in Ohio. Additionally, the MPH program at Case is an accredited program. No joint MPH-MSSA degree programs have to date been established in either Ohio or the geographic region; the closest dual degree programs are located in Pittsburgh, Indiana, Boston, and New York. Accordingly, a joint MPH-MSSA degree program at Case will prove attractive to many students who would otherwise be forced to enroll in a joint degree program elsewhere or to pursue their two degrees consecutively.

## Prospective Students

Prospective students have an interest in social work and public health. Students will be recruited nationally for this graduate program opportunity. Many schools of social work have as many as 25 students interested in this joint program. The MSASS goal is to have 16 students per year in five years.

The joint degree program option will be available to full-time students only due to the sequencing of courses. Individuals wishing to pursue both degrees on a part-time basis may apply to each program individually and pursue each on a part-time basis.

## Description of the Master in Public Health

The Graduate School offers a graduate degree in public health leading to the degree of Master of Public Health. Professionals from nursing, medicine, law, life sciences, social work, the social sciences, management, public policy, and other areas have contributed to the field of public health. The program at Case Western Reserve University School of Medicine emphasizes the interdisciplinary and inter-professional nature of the field and is designed to provide advanced training in public health. The program is accredited by the Council on Education in Public Health (CEPH).

The MPH program requires 42 credit hours to complete. Eighteen hours or six 3 -hour courses make up the core requirements, representing the fundamental domains of public health: biostatistics; epidemiology, environmental health sciences, health service administration, public health essentials, and social and behavioral sciences. Students receive nine credits for three courses in the major of their choice, six credits for elective courses, and nine credits for the "Capstone Experience," a public health practicum encompassing the equivalent of one semester of the MPH program. There are four majors in the MPH program: Population Health, Global Health, Health Policy and Management, and Health Promotion and Disease Prevention. (Patterns of Enrollment for the bolded domains are attached to this document.) The joint program will entail 3 of the 4 majors highlighted. The details for Global Health have not yet been worked out due to the complexities related to identifying appropriate field placement opportunities that would meet the program accreditation and licensure requirements for social workers. We anticipate that such details will be resolved within the upcoming 2 to 3 years, at which time students in this track will also be able to participate in the dual degree program. Students must develop a capstone project relevant to their major. Previous experience and education pertaining to public health may increase the student's flexibility in course selection.

## Description of the Master of Science in Social Administration

The MSSA program prepares students for advanced social work practice in an area of concentration. Through classroom and field work, they develop the knowledge, values, and skills needed to function as social work professionals to effect change in individuals, families, groups, and communities. The
program requires 60 credit hours to complete, and is accredited by the Council on Social Work Education (CSWE). All courses are given letter grades with the exception of 15 hours of field education. Life or work experience does not factor into the course selection. However, a bachelor's degree in social work within the last five years before matriculation at CWRU with grades of B or better can give an applicant the opportunity to become an Advanced Standing student. Advanced Standing students may place out of coursework and substitute other courses in their place.

The foundation curriculum ( 21 credit hours) is completed during the first two semesters of full-time enrollment. It consists of general courses in social work methods and theory, social policy, diversity and inequality, research methods, and two semesters of field placement. Most foundation courses are prerequisites for concentrations required courses and advanced electives.

The advanced curriculum ( 39 credit hours) builds on the foundation courses and provides advanced knowledge and practice skills in the concentration selected by the student. Concentrations include aging; alcohol and other drug abuse; children, youth, and families; health; mental health; and community and social development. (Patterns of Enrollment-POE- for bolded concentrations/ specializations are attached to this document.) These POEs provide an example of the curriculum, but others can be customized for an individual student.

## Admission to the Joint Program

Applicants are required to satisfy the regular requirements of both programs. Applicants must apply separately to MSASS for the MSSA and to the Graduate School for the MPH. Admission to one program does not guarantee that a student will be admitted to the other. Only full-time students are eligible for admission to the joint degree program. Application to both schools for admissions to the joint degree program can be done simultaneously but must be done within the first year of admission to each individual program. A joint committee of the two programs will meet and review each applicant's eligibility for admissions to the joint program. It is possible for a student to be admitted to one program or the other but not to the joint degree program. This joint discussion is particularly critical in situations in which the student seeks entry to the joint program after having applied for and being enrolled in only one of the degree programs. While normally, the point of entry to the joint program is the fall semester, a student already enrolled in the first year of the MSASS program may apply for spring admission to the MPH program.

## Description of the MSSA/MPH Program

Overview, Credits and Course Planning. Students will participate in both degree programs simultaneously and will be able to complete the joint program in 36 months (see attached Patterns of Enrollment). Students in the joint degree program must complete at least 72 academic credit hours. The Council on Social Work Education (CSWE) expects all Master of Social Work programs to require 60 credit hours; 15 of those hours are completed in a social work field placement internship. The MSSA program will accept 9 hours for courses in public health, and the MPH program will accept 9 hours for courses in social work; these 9 hours relate to the integrated Capstone-Field Placement experience. The Capstone Project component of these credit hours must be approved by the MPH office utilizing the standard approval process (see Capstone Kit) prior MPH credit hours being granted. Depending upon the student's concentration, an additional 3-12 credit hours may be cross-counted between programs but, in every case, students must meet the minimum course credit requirement for accreditation and licensure requirements in each program. The student will complete the foundation courses before taking advanced courses in social work. Should a student in good standing decide not to complete the joint degree program, he/she may complete either the MSSA or the MPH program instead, according to their interests and in consultation with the respective advisors.

MSASS will waive SASS 426 Introduction to Research Methods course for the MPHP 405 Statistical Methods in Public Health and other courses in Epidemiology or Biostatistics, such as Epidemiology: Introduction to Theory and Methods (MPHP 490). Additional epidemiology and other statistics and
research courses requiring an understanding of data management and statistical analysis can be taken as electives for social work and public health. Students with no or limited undergraduate research methods might want to take SASS 426 Introduction to Research Methods.

Students must take a second course in research methods (research electives in the second year); SASS 530 (Practice Evaluation) and/or SASS 532 (Analytical Tools) are considered possible elective course options.

Joint degree students will be required to participate in an Integrative Seminar each fall and spring for 0 academic credits. The seminar meets approximately once a month. As students progress through their program, they are expected to take more leadership responsibilities in the seminar.

If approved, the MPH capstone can be completed in the MSSA field placement. The MPH program is a professional degree involving work with individuals, groups, organizations and communities. The social work degree program is a practice degree that requires work with individuals, groups, and/or families, as well as communities. An important part of social work direct practice field internships is the ability to practice work with individuals, groups or families, and community and social development practice with communities and organizations. Like the Integrative Seminar, the integrated MPH Capstone-MSSA Field Placement experience will support student integration and utilization of public health and social work concepts and skills.

Building a Capstone ( 0 credit hours) and the Social Work Field Seminar (1) are required for all students in the joint program. In the social work program, the first field placement should be taken concurrently with the public health field seminar. In the public health program, the Building a Capstone should be taken before the Capstone Project. Each will serve to integrate the theoretical and practical content area of the two components of each joint program, while also engendering interdisciplinary discussion among the disciplines participating in the public health graduate program.

Program Advisory Committee. Each joint degree student will have a faculty advisor in the MSSA program and in the MPH program. These advisors will be responsible for guidance of the student through the joint program, with each respective faculty emphasizing the content and process within their primary program. In addition, there will be a Program Advisory Committee, consisting of Public Health representatives (currently Sana Loue and Scott Frank), and Social Work representatives (currently Sharon Milligan or David Miller, Zoe Breen Wood or her designee). The Program Advisory Committee will meet once a year and as needed to address program issues and monitor the effectiveness of the program.

Credit hour breakdowns for MSSA/MPH are dependent upon the MSSA concentration and are described in the sample patterns of enrollment, below.

## Tuition

Tuition for the joint degree program will be based on the program in which the course is taught. That is, if the course is taught in PH, PH receives the tuition. Since all MSSA applicants will be enrolled in MSASS, they will pay the MSASS tuition rate. Should this arrangement change at some future date, a new agreement will need to be negotiated in order to ensure equitable revenue sharing. Home base is defined as the student's primary program. MSASS will be the home base for all joint degree students, following the pattern of other MPH dual degree programs in which the program with the greater number of credit hours is considered the home base program. The exception to this would consist of a situation in which the student is admitted to and initiates the MPH Program prior to the MSASS program.

Assuming an MSSA/MPH dual degree student is home-based in MSASS and takes 6 MPHP credits and 9 SASS credits for a total of 15 credits during the fall semester, the MPH Program would bill MSASS for tuition, since all of her tuition dollars would funnel back to her home-base of MSASS. This billing
would be designed to occur in an equitable fashion that allows each program to realize tuition income that acknowledges the actual teaching commitment occurring in that semester. If at any time either the MSASS or School of Graduate Studies full-time tuition rates change such that they are no longer equal (as they are at the time of the original dual degree approval), then this tuition sharing agreement must be revised to ensure an equitable billing model.

## Example:

1. Full-time School of Graduate Studies tuition is $\$ 17,845.00$ per semester.
2. The percentage of her credits taken in the fall 2011 semester that were MPHP/EPBI is $6 / 15=.40$ or 40\%
3. $40 \%$ of $\$ 17,845.00$ is $\$ 7,138.00$
4. $\$ 7,138.00 \times .60(60 \%$ tuition return rate) is $\$ 4,282.80$.
5. The MPH Program would bill MSASS for $\$ 4,282.80$.

Reversing this scenario, such that the student is home-based in the MPH Program, and she takes 6 MSSA credits and 9 MPHP credits for a total of 15 credits.

1. Full-time MSASS tuition is $\$ 17,845.00$ per semester.
2. The percentage of her credits taken in that semester that were SASS were $6 / 15=.40$ or $40 \%$
3. $40 \%$ of $\$ 17,845.00$ is $\$ 7,138.00$
4. $\$ 7,138.00 \times .60(60 \%$ tuition return rate) is $\$ 4,282.80$.
5. MSASS would bill the MPH Program for $\$ 4,282.80$.

## SAMPLEPATTERN OF ENROLLMENT (3-year full-time program)

MSSA/MPH Joint Degree: Community and Social Development Concentration (MSSA) and Health Promotion and Disease Prevention Major (MPH)

## YEAR 1

Fall
MPHP 405
MPHP 506
MPHP 406
SASS 440
SASS 484
SASS 470
Statistical Methods in Public Health (3)
Future of Public Health (0)
History and Philosophy of Public Health (3)
Human Development I: Child and Adolescent (3)
Theories of Oppression and Social Justice (3)
Introduction to Social Policy (3)
Integrative Seminar in Public Health/Social Work (0) Total credits: 15
(6 PH/9 SW)
Spring
MPHP 411
Introduction to Behavioral Health (3)
MPHP 507
MPHP 429
Building a Capstone (0)
Environmental Health (3)
MPHP 413 Health Education, Communication, and Advocacy (3)
SASS 478
Macro and Policy Practice Skills (3)
SASS 441
Human Development II (3)
Integrative Seminar in Public Health/Social Work (0) Total credits: 15
(9 PH/6 SW)
Year 2
Fall
MPHP 483 Introduction to Epidemiology for Public Health(3)
MPHP 652/SASS 601 Capstone/Field Education I (3)/SASS 601 Field Education (2)
SASS 477 Direct Practice Methods and Skills (3)
SASS $495 \quad$ Field Education Seminar (1)
SASS $534 \quad$ Community Development Perspectives (3)
SASS 567 CSD I: Strategies for Assessing, Building, \& Organizing Community (3) Integrative Seminar in Public Health/Social Work (0)

Total credits: 16 (3-6 PH/10-13 SW)*
Spring
MPHP 439 Health Management and Policy (3)
MPHP 652/SASS 602 Capstone/Field Education II (3)
SASS 569 CSD II: Strategies for Designing and Implementing Community and Social Change (3)
SASS/MPHP elective Analytic \& Research Tools for Community and Social Development or other Research Elective (3)
Integrative Seminar in Public Health/Social Work (0) Total credits: 12
(6 PH/6 SW)
YEAR 3
Fall
MPHP 433 Community Interventions and Program Education (3)
MPHP 652/SASS 603 Field Education III (3) (to serve as MPH capstone credits if placement appropriate for both)
SASS 563 Resources for Community and Social Development (3) Integrative Seminar in Public Health/Social Work (0)
1 elective (3)
Total credits: 12
(3-6 PH/3-9 SW)*
Spring
SASS 604
Field Education IV (3) (to serve as MPH capstone credits if placement appropriate for both)
(0-3 PH/O-3 SW)*
Total credits: 3
Total Program Credits: 73-76

| Pure PH | $21-24$ |  |
| :--- | :---: | :--- |
| PH or MSASS | 6 |  |
| Pure MSASS | 31 |  |
| Capstone/Field | $9 / 15$ | Consists of 9 MPH-MSASS (does not include field seminar or capstone preparation, which are <br> included in "pure" credits; consists of MSASS 604; 3 credits beyond the 9 that are required for <br> MPH capstone. All Capstone/Field Experience must meet all criteria for both programs. |
| Electives | 3 | Must be approved by both MPH and MSSA programs |

*Range in credit hours reflect whether Capstone/Field Education are counted for administrative (tuition) purposes in the MSSA or MPH program. Educationally, these credit hours count toward the degree for both programs.

## PATTERN OF ENROLLMENT (3-year full-time program)

MSSA/MPH Joint Degree: Direct Practice in Aging (MSSA) and Health Care Policy and Administration (MPH)

*Range in credit hours reflect whether Capstone/Field Education are counted for administrative (tuition) purposes in the MSSA or MPH program. Educationally, these credit hours count toward the degree for both programs.

## SAMPLE PATTERN OF ENROLLMENT (3-year full-time program)

MSSA/MPH Joint Degree: Direct Practice in Alcohol and Other Drug Abuse (MSSA) and Population Health Research
YEAR 1
Fall
MPHP $405 \quad$ Statistical Methods in Public Health (3)
MPHP $506 \quad$ Future of Public Health (0)
MPHP $406 \quad$ History and Philosophy of Public Health (3)
SASS $440 \quad$ Human Development I: Child and Adolescent (3)
SASS $484 \quad$ Theories of Oppression and Social Justice (3)
SASS $470 \quad$ Social Policy (3)
Integrative Seminar in Public Health/Social Work (0) Total credits: 15 (6 PH/9 SW)
Spring
MPHP 439
MPHP 507
MPHP 429
MPHP 411
SASS 441
SASS 478
Health Management and Policy (3)(public health core unless substitute permitted)
Building a Capstone (0)
Environmental Health (3)
Introduction to Health Behavior (3)
Human Development II: Adult (3)
Macro and Policy Practice Skills (3)
Integrative Seminar in Public Health/Social Work (0) Total credits: 15
(9 PH/6 SW)
Year 2
Fall
MPHP 483 Introduction to Epidemiology for Public Health (3)
MPHP 652/SASS 601 Capstone/Field Education I (3)
SASS 495 Field Education Seminar (1)
SASS 477 Direct Practice Foundation Methods Skills (3)
SASS/MPHP Practice Evaluation or other Research Elective (3)
Integrative Seminar in Public Health/Social Work (0)
Total credits: 13
(3-6 PH/7-10 SW)*
Spring
MPHP 467 Cost Effectiveness in Healthcare (3)
MPHP 652/SASS 602 Capstone/Field Education II (3)
SASS 547 Problem Identification, Screening (3)
SPPP $502 \quad$ Alcohol and Other Drug Abuse Policy (3)
SASS 576 Integrative Seminar in Alcohol and Other Drug Abuse (3)
Integrative Seminar in Public Health/Social Work (0)
Total credits: 15
(3-6 PH/9-12 SW)*
YEAR 3
Fall
MPHP 491 Study and Design (3)
MPHP 652/SASS 603 Capstone/Field Education III (3)
SASS 564 Social Work Practice in Alcohol and Other Drug Abuse (3)
SASS 549 Theory/Practice Approaches in Direct Practice (3)
SSWM 563 Intervention in Co-Occurring Mental \& Substance Use Disorders (3)
Integrative Seminar in Public Health/Social Work (0)
Total credits: 15
(3-6 PH/9-12 SW)*
Spring
SASS $604 \quad$ Field Education IV (3)
MPHP/SASS

Elective (3)
Integrative Seminar in Public Health/Social Work (0)

Total credits: 6
(0-3 PH/3-6 SW)*

Total Program Credits: 76-79

| Pure PH | $24-27$ |  |
| :--- | :---: | :--- |
| PH or MSASS | 3 |  |
| Pure MSASS | 40 |  |
| Capstone/Field | $9 / 15$ | Consists of 9 MPH-MSASS (does not include field seminar or capstone preparation, which are <br> included in "pure" credits; consists of MSASS 604; 3 credits beyond the 9 that are required for <br> MPH capstone. All Capstone/Field Experience must meet all criteria for both programs. |
| Electives | 3 | Must be approved by both MPH and MSSA programs |

*Range in credit hours reflect whether Capstone/Field Education are counted for administrative (tuition) purposes in the MSSA or MPH program. Educationally, these credit hours count toward the degree for both programs.

## SAMPLE PATTERN OF ENROLLMENT (3-year full-time program)

MSSA/MPH Joint Degree: Direct Practice in Health (MSSA) and Population Health Research (MPH)
YEAR 1
Fall
MPHP 405 Statistical Methods in Public Health (3)
MPHP $506 \quad$ Future of Public Health (0)
MPHP $406 \quad$ History and Philosophy of Public Health (3)
SASS 440
SASS 484
Human Development I: Child and Adolescent (3)
Theories of Oppression and Social Justice (3)
Introduction to Social Policy (3)
Integrative Seminar in Public Health/Social Work (0)
Total credits: 15 (6 PH/9 SW)
Spring
MPHP 507
MPHP 429
MPHP 411
SASS 441
SASS 478
Building a Capstone (0)
Environmental Health (3)
Introduction to Health Behavior (3)
Human Development II: Adult (3)
Macro and Policy Practice Skills (3)
Integrative Seminar in Public Health/Social Work (0) Total credits: 12 (6 PH/6 SW)
YEAR 2
Fall
MPHP 483 Introduction to Epidemiology for Public Health (3)
MPHP 652/SASS 601 Capstone (3) or Field Education I (2)
SASS 495 Field Education Seminar (1)
SASS 477 Direct Practice Foundation Methods Skills (3)
SASS/MPHP Practice Evaluation or other Research Elective (3) Integrative Seminar in Public Health/Social Work (0)

Total credits: 13 (3-6 PH/7-9 SW)*
Spring
MPHP 652/SASS 602 Capstone/Field Education II (3)
SASS 547 Problem Identification, Screening (3)
SSWM 518/SASS 515 Social Work with Death, Grief, and Loss/Family Caregiving (3)
MPHP 467 Cost Effectiveness in Healthcare (3)
Integrative Seminar in Public Health/Social Work (0) Total credits: 12
(3-6 PH/6-9 SW)*
YEAR 3
Fall
MPHP 491 Study and Design (3)
MPHP 652/SASS 603 Capstone/Field Education III (3)
SPPP 511/MPHP 439 Issues in Health Policy and Service Delivery (3) or MPHP 439 Health Management and Policy in the Spring
SASS 549 Theory/Practice Approaches in Direct Practice (3)
SASS 589 Social Work in Health: Chronic Illness (3) Integrative Seminar in Public Health/Social Work (0)

Total credits: 15
(3-6 PH/9-12 SW)*
Spring
SASS 604

MPHP 439
Field Education IV (3)
Integrative Seminar in Public Health/Social Work (0)
1 elective
(3)

Total credits:6-9
(3-6 PH/3-6 SW)*
Total Program Credits: 73-76

| Pure PH | 27 |  |
| :--- | ---: | :--- |
| PH or MSASS | 6 |  |
| Pure MSASS | 37 |  |
| Capstone/Field | $9 / 15$ | Consists of 9 MPH-MSASS (does not include field seminar or capstone preparation, which are <br> included in "pure" credits; consists of MSASS 604; 3 credits beyond the 9 that are required for <br> MPH capstone. All Capstone/Field Experience must meet all criteria for both programs. |
| Electives | 6 | Must be approved by both MPH and MSSA programs |

*Range in credit hours reflect whether Capstone/Field Education are counted for administrative (tuition) purposes in the MSSA or MPH program. Educationally, these credit hours count toward the degree for both programs.

10900 Euclid Avenue

April 4, 2011
Phone 216-368-3200
Fax 216-368-3204
www.case.edu
Pamela B. Davis, M.D., Ph.D
Dean, School of Medicine
Case Western Reserve University
10900 Euclid Avenue
Cleveland, OH 44106
Dear Dean Davis: am
I wholeheartedly support the proposal for the combined degree program in dental medicine public health (DMD/MPH) at Case Western Reserve University. There is an urgent need for public health training programs, both nationally and locally; there are less than five such combined degree programs in the country. At the local level, 11 of the 60 underserved areas in Ohio are situated in Cuyahoga County. Populations living in underserved areas would tremendously benefit from appropriate oral health promotion programs as well as improved access to dental care. Public health dentists play an important role in administering these programs.

The combined degree program will enhance the mission of the Case School of Dental Medicine, "contributing new knowledge through research and scholarly pursuits". I also endorse the program's efforts to have the capstone experience at local public health agencies including community health centers. Since graduates of the program will most probably be working in public health settings, this capstone experience provide an excellent opportunity to address some of the oral health problems among vulnerable groups through both patient care, research and oral health promotion activities. The program will also complement the existing Healthy Smiles Sealant Program in which first-year dental students place pit-and-fissure sealants on the teeth of needy children in Cleveland Metropolitan School District, thereby improving access to dental care.

I commend the efforts to develop and implement the combined degree program in dental medicine and public health at the Case School of Dental Medicine, and I would like to reiterate my support and commitment to the program. If you have any questions about my support to the program, please feel free to contact me.

Sincerely,


Jerold S. Goldberg, DDS

SCHOOL OF DENTAL MEDICINE
CASE WESTERN RESERVE
UNIVERSITY

April 4, 2012
Gary S. Chottiner, PhD
President, Faculty Senate
Case Western Reserve University
10900 Euclid Avenue
Cleveland, OH 44106
Dear Dr. Chottiner:
I am writing to confirm that the DMD/MPH proposal was unanimously approved by the faculty of the School of Dental Medicine at its regular meeting on April 19, 2010. Prior to the approval by faculty at large, the proposal was also endorsed by the Dental Education Committee and the Graduate Studies Committee of the school. Due to the relatively smaller number of faculty at the school, we do not have a formal Faculty Council.

As stated in my letter dated April 4, 2011, to Dean Pamela Davis, the School of Dental Medicine and I most enthusiastically support this program because it enhances our mission "contributing new knowledge through scholarly pursuits". The DMD/MPH proposal received a five-year grant totaling nearly 1.3 million from the Health Resources and Services Administration (HRSA). The support includes stipend, tuition, and travel for the dual degree students. I believe DMD/MPH is one of the few dual degree programs with external funding.

I thank the Faculty Senate's consideration of this dual degree proposal which has the unwavering support of the faculty and administration of the School of Dental Medicine. Should you have any questions or need additional information, please feel free to contact me.

Sincerely


Jerold S. Goldberg, DDS
Dean

To: Pamela B. Davis, M.D., Ph.D.
Dean, School of Medicine

From: Jill Barnholtz-Sloan, Ph.D.
Chair, Faculty Council 2011-2012


Phone 216.368.2825
Fax 216.368.2820
http:/ / casemed.edu

Date: January 24, 2012
Re: Proposal for the Dual Degree Program in Dental Medicine and Public Health (DMD/MPH)

At its meeting on January 23, 2012, Faculty Council reviewed the proposal for the Dual Degree Program in Dental Medicine and Public Health (DMD/MPH).

The dual degree program in Dentistry and Public Health at CWRU seeks to impart content and skills necessary to expand the practice of dentistry into the community in a proactive way that fosters improved oral health, and as a direct result, yields improved overall health of the populations involved. Traditionally, the field of dentistry has approached the oral health of individuals in the context of the one-on-one doctor-patient relationship. We anticipate that participation in the dual degree program will enhance preventive dentistry skills in the office setting, but most importantly, focus on improving the health of populations through community intervention.

The need for public health dentists has increased recently because of the decline in the number of dental graduates and an increase in the number of dental health professional shortage areas (DHPSA). The number of dental graduates has decreased from 6300 to 4700 between 1977 and 2008. During the last decade the number annually has increased from 1275 to 2000 and the population impacted by this trend increased from 28 to 48 million.

Faculty Council concluded the Dual Degree Program in Dental Medicine and Public Health an interesting and exciting opportunity for collaboration between programs. By a vote of 33 in favor; 0 against, 0 abstain, the proposal was recommended for approval.

Please review the proposal and add any additional comments; then forward to the University Faculty Senate for its review and recommendation.

Thank you.

10900 Euclid Avenue
Memorandum
Visitors and Deliveries
Biomedical Research Bldg - Rm 113
Phone 216.368.2825
Fax 216.368.2820
http:/ / casemed.edu
To: Gary Chottiner, Ph.D.
Chair, Faculty Senate

Date: January 25, 2012
Re: Proposal for the Dual Degree Program in Dental Medicine and Public Health (DMD/MPH)

Enclosed please find a proposal for a new Dual Degree Program in Dental Medicine and Public Health to award the DMD and MPH degrees. The program has been recommended for approval by the Faculty Council of the School of Medicine, acting under our Bylaws for the Faculty of Medicine, and has my enthusiastic endorsement.

I understand that the process for further review includes oversight by the Faculty Senate's Graduate Studies Committee and the Faculty Senate as a whole. Please let me know if I can provide any additional information.

Thank you for your consideration.
C: (all w/o enclosures): Jill Barnholtz-Sloan, Ph.D.
Scott Frank, Ph.D.
Sena Narendran, BDS, MPH

Proposal for the Dual Degree Program in Dental Medicine and Public Health (DMD/MPH)

Scott Frank
Sena Narendran
October 25, 2011

## Background:

The Case School of Dental Medicine (CSDM) offers a rigorous 4-year degree resulting in graduates who are competent to practice dentistry. In addition, Case Western Reserve University (CWRU) offers a master's degree in public health (MPH), which is administered by the School of Graduate Studies and is housed in the School of Medicine (SOM); completion of the MPH degree requires 42 credit hours. CWRU also offers numerous joint degree programs such as MD/MPH, JD/MPH, MD/PhD; including 6 current dual degrees with the MPH (medicine, nursing, anthropology, business, law, bioethics). Most of the constituent schools at CWRU offer dual-degrees in affiliation with the MPH program. Dental public health is one of the nine recognized specialties of the American Dental Association. The dental curriculum lends itself to a dual degree with public health as evidenced by the CSDM's existing community-oriented programs: the Dental Sealant Program and other similar cornerstone experiences.

## Justification:

CSDM maintains a strong philosophical and strategic commitment to improving the oral health of the community. Affiliation with the MPH Program would provide a curricular framework in which to realize that commitment on behalf of the dental students who elect to pursue a dual DMD/MPH degree. The dual degree program in Dentistry and Public Health at CWRU seeks to impart content and skills necessary to expand the practice of dentistry into the community in a proactive way that fosters improved oral health, and as a direct result, yields improved overall health of the populations involved. Traditionally, the field of dentistry has approached the oral health of individuals in the context of the one-on-one doctor-patient relationship. We anticipate that participation in the dual degree program will enhance preventive dentistry skills in the office setting, but most importantly, focus on improving the health of populations through community intervention. Oral health necessarily involves facilitation of preventive behaviors through purposeful efforts to influence lifestyle of patients and populations. Since wellness is based largely on individual lifestyle choices; and since the health care delivery system is focusing more on collaborative self-management populations; and since prevention is becoming an increasingly compelling imperative; it is clear that dentistry and public health are inexorably linked. Dental practice provides the path to public health needs, and public health provides solutions to those needs identified through the practice of dentistry. It is necessary to address populations to improve the health of individuals and to work with individuals to improve the health of populations. Dentistry and public health are interdependent, reliant on each other in order to achieve their mutual goals.

The need for public health dentists has increased recently because of the decline in the number of dental graduates and an increase in the number of dental health professional shortage areas (DHPSA). The number of dental graduates has decreased from 6300 to 4700 between 1977 and 2008. During the last decade the number of DHPSAs has increased from 1275 to 2000 and the population impacted by this trend increased from 28 to 48 million. At the state level, 11 of the 60 dental HPSAs in Ohio are in Cuyahoga County. With the passage of health care reform, a tremendous need for primary dental care training (general, pediatric, and public health dentistry) exists. HRSA reiterated this need by issuing two request for proposals (RFP) in April 2010; for post- and pre-doctoral training in dental public health. CSDM is now the recipient of both
funding sources (see "New Resources" below). The proposed dual degree program will be under the auspices of the pre-doctoral training. Partnership between CSDM and the MPH program in post-doctoral training furthers the critical mass of public health/dental medicine students and the opportunities for collaboration between programs.

## Program Obiectives:

- To enhance public health/dental student capacity to address health needs of the individual and of populations
- To enhance public health/dental student skill in health promotion and disease prevention through detailed understanding of health behavior and health communication principles
- To increase the ability of the public health/dental students to apply epidemiological and biostatistical precepts to dental populations
- To expand the public health/dental student knowledge base to include public health practice, community assessment and intervention in addition to individual diagnosis and treatment
- To expand public health/dental student understanding of health care systems and the role of the dentist in the equitable provision of dental services; health policy; health advocacy; and health administration

We envisage the combined DMD/MPH program will be five years in duration, and completion of the MPH part of the program will require 42 credit hours ${ }^{1}$ that will include:

- Core courses

18 hours*

- MPH Major Courses (9 credits required):
- Outreach Preventive Dentistry: A Cornerstone Experience (ACE) ${ }^{2} 6$ hours
- MPHP approved Health Promotion, Disease Prevention Course
- MPH Seminars
- Others/electives

○. Health, Science, and Society Module (HSS) ${ }^{3}$

- MPHP elective

3 hours 6 hours*
3 hours
3 hours

- Capstone Experience/Project 9 hours
${ }^{1}$ A total of 9 School of Dental Medicine credit hours will count toward the course requirements of the MPH degree.
${ }^{2}$ Cross counted course from School of Dental Medicine approved to count toward the MPH Major in Health Promotion and Disease Prevention.
${ }^{3}$ Cross counted course from School of Dental Medicine approved to count as an MPH elective, but not toward the MPH Major in Health Promotion and Disease Prevention.

As a routine, the DMD/MPH students will be entered into the Health Promotion Disease Prevention Major of the MPH program, with Outreach Preventive Dentistry an approved course for this major, leaving an additional 3 credits required for completion of the HPDP major. The Dental Medicine Course Health, Science, and Society will be accepted as an MPH program elective, leaving an additional 3 hours of elective time. Because the Outreach Preventive Dentistry ( 6 credit hours) course is only approved for the Health Promotion Disease Prevention Major, DMD/MPH students choosing a major other than Health Promotion and Disease
prevention (Population Health Research, Global Health, or Health Policy) are likely to need additional credit hours beyond the required 42 hours to complete Major requirements.

The CWRU Capstone Experience is "a public health field practicum that places students in health related settings to work on projects of mutual interest to the agency and student. The experience gives students the opportunity to apply the knowledge and skills acquired through academic course work to a problem involving the health of the community." Thus, a dental student in the DMD/MPH program will be required to complete $24^{*}$ hours of core and elective courses of the MPH program (i.e., the courses indicated by the * in the chart above), in addition to the ACE, HSS, and the capstone project. Please see the attached syllabus for the Outreach Preventive Dentistry (MAHE 145), which is A Cornerstone Experience (ACE) for the first year dental students at the Case School of Dental Medicine. The syllabus for Health, Science and Society module (LDRS 111) is also attached. The requirement, 24 hours, can be completed in two semesters (referred to as the MPH dedicated year) based on the attainable graduate school course load of 12-15 hours per semester. These 24 didactic hours can be completed through any one of the following models during the five year period:

- MPH dedicated learning during year 1 (before initiating the DMD) program followed by the standard DMD program (Model 1).
- Between Year 2 and 3 of the five-year program, i.e. after completing the second year of the DMD program (Model 2).

The preferred approach is Model 1 with Model 2 included to add flexibility to the combined degree program and also to accommodate students who become interested in public health after entering the CSDM. Model 1 is preferred because of the high level of need to develop, practice, and maintain manual dexterity skills inherent to the practice of dental medicine. An uninterrupted approach to skill development provides a natural advantage to learners. Students electing DMD/MPH program Model 1 will complete a major portion of the Capstone Project during the summer between the first and second of the five-year program. Any remaining capstone activities can be completed during the rest of the DMD program.

Students adopting DMD/MPH program Model 2 will complete a part of the capstone project during the summer between the second and third year of the five-year program. The remainder of the Capstone Project can be completed during the following two years of the DMD program. Model 2 is similar to existing programs such as the MD/MPH and DMD/MS. The latter is a combined degree program in dental medicine and clinical research. The MD/MPH program has been in place for many years with a long tradition of success.

## Tuition:

Of the five years that students would be enrolled in the dual DMD/MPH Program, one year will be devoted exclusively to the MPH coursework ( 24 credit hours), and four years will be dedicated exclusively to DMD clinical study and coursework. We agree that the simplest approach to tuition management for the normal scenario for a dual DMD/MPH degree student will be as follows:

During the MPH dedicated year, (usually the first year of the five year sequence), students will register and pay tuition through the School of Graduate Studies at the rate set by Case Western Reserve University. Tuition revenue for the dedicated MPH year will return to the Department of Epidemiology \& Biostatistics through the normal mechanisms. If the MPH-dedicated year occurs during the student's third overall year in the dual degree program, and the student is home-based in the DMD program, current university policy would require the student to take a leave of absence from the DMD program in order to register and be billed at the School of Graduate Studies tuition rate. This policy states that a student may not be simultaneously enrolled in two schools (professional school plus graduate school). The leave of absence approach is used presently with other professional schools in order to complete dual degrees. During the other four years of study, students will register and pay tuition through the School of Dental Medicine at the school's going rate. Through the existing mechanisms, the tuition for those four years will return to the School of Dental Medicine through the normal mechanisms.

## Mentoring and Academic Advising:

CSDM: The Department of Community Dentistry has six full-time faculty members, two of them (Drs. Lalumandier and Narendran) are Diplomates of the American Board for Dental Public Health, two others are epidemiologists (Drs. Demko and Nelson), one member has an MPH degree (Dr. Williams), and another has expertise in behavioral sciences. Dr. Narendran, codirector of the DMD/MPH program will have the primary responsibility of mentoring the dental students in the program. Dr. Narendran has excellent mentoring skills that are apparent from the list of awards won by dental students from Case Western Reserve University during the last four years or so (Appendix C). He has a similar track record at the previous institutions he has worked. We will constitute an advisory committee for each dental student enrolled in the DMD/MPH program and the committee will include at least one faculty member from the Department of Epidemiology and Biostatistics or from another school on campus. In addition to the aforementioned faculty members in the Department of Community Dentistry, two other faculty members at the School of Dental Medicine have MPH degrees: Drs. Gerald Ferretti and Lance Vernon. If needed, each may serve as members of the advisory committee of the DMD/MPH program. The advisory committee for a DMD/MPH program student may also serve as his/her Capstone Committee during the experience.

MPH: The MPH program has a system for academic advising that includes assignment of two advisors upon entering the program, allowing the student to choose their preference. The MPH Program Director will be one of the two academic advisors offered to DMD/MPH students. Other advisors can be selected from among core faculty and coordinators of the MPH Majors.

## Applicant Pool:

Students for the combined DMD/MPH program will be selected from the applicant pool of the CSDM, which is approximately 3000 per year. While the number of dental graduates has declined, the number of applicants per school has not. For the application cycle, 2010-11, CSDM received 2843 applications. The anticipated enrollment for the DMD/MPH program is two dental students per year.

## Admission Protocol:

Applicants to the DMD/MPH program must fulfill the requirements for both the DMD (see http://dental.case.edu/dmd/ ) and MPH programs (see http://mph.case.edu/admissions.html). Separate applications must be submitted to the School of Medicine for DMD degree and to the Graduate School for the MPH degree. Applicants must be accepted by both the programs to be enrolled in the dual degree. Admission to the DMD program does not entail automatic admission to the MPH program and vice versa. The admission process will occur independently within each program, with a letter of support from CSDM required for any applicant to the CWRU MPH program. Selected faculty members from the MPH program and the School of Dental Medicine will review final admissions decisions for the DMD/MPH program.

## Capstone Experience:

Students in the DMD/MPH program will complete their capstone projects in any of the local public health agencies, and will be particularly encouraged to consider community health centers offering dental health services.. The capstone for the DMD/MPH student will hold the same requirements as for MPH students and students in other dual degree programs. The Capstone Experience is the centerpiece of the CWRU MPH Program. A Public Health field practicum required of all MPH students, this 9 -credit course places students in health related settings to work on projects of mutual interest to the agency or organization and the student. The experience gives students the opportunity to apply the knowledge and skills they have acquired through their academic course work to a problem involving the health of the community. Students learn to communicate with target groups in an effective manner, to order priorities for major projects according to definable criteria, to use computers for specific applications relevant to public health, to identify ethical, social, and cultural issues relating to public health policies, research and interventions, to identify the process by which decisions are made within the organization or agency, and to identify and coordinate the use of resources at the site.

All DMD/MPH students will designate a Capstone Committee consisting of at least 3 members. Their Capstone Committee must include at least one member of the CSDM faculty and one member of the CWRU MPH program faculty; with the third member generally from the Capstone site where the project is conducted.

The outcomes of the capstone experience for the DMD/MPH program will include an oral presentation and a written report. Both products will be evaluated by the student's Capstone Committee. Similar to the first year dental student summer research projects, we will require the DMD/MPH program students to present their capstone experience at a national meeting and at the School of Dental Medicine Professional Day. DMD/MPH students will also be required to present their project at the MPH Population health innovations Conference, offered at the end of fall and spring semesters. We will also encourage the students to submit a manuscript for publication in a peer-reviewed journal.

## New Resources:

During July 2011, Health Resources and Services Administration (HRSA) awarded a five-year grant totaling $\$ 1,281,653.00$ to the Case School of Dental Medicine (CSDM) for Pre-doctoral training in Dental Public Health. Dr. Sena Narendran, co-author of this DMD/MPH program proposal, is the principal investigator of this grant. The grant will pay stipend, tuition, and travel expenses for one DMD/MPH student in the first year and two students per year during the subsequent four years of the grant. The grant also includes partial faculty and administrative support to the program. CSDM also received yet another 5 -year grant of $\$ 1,294,564.00$ for postdoctoral training in dental public health with Dr. Narendran as the principal investigator. The second grant will pay stipend, tuition, and travel expenses for dental public health residents along with partial faculty and administrative support. Thus during the last month CSDM received two training grants for dental public health totaling to nearly 2.6 million dollars.

## Sample Template for Course Schedule for DMD/MPH, Model 1

Course Name (*indicates core)
Credits
Course \#

Year 1, fall
*Statistical Methods in Public Health 3
*History \& Philosophy of Public Health 3
*Epidemiology: Introduction to Theory \& Methods 3
Health Disparities
*Future of Public Health
Total Credits
0
MPHP 405

Year 1, spring
*Introduction to Health Behavior 3
MPHP 411
*Epidemiology of Environmental Health 3
*Health Management \& Policy 3
Community Interventions \& Program Evaluation 3
*Building a Public Health Capstone 0

$$
\text { MPHP } 429
$$

MPHP 439
3 MPHP433
Total Credits 12

Year 1, summer
*Capstone Experience
3-6
MPHP 652

Year 2, fall
First Year DMD Curriculum
Sealant ACE 6
MAHE 145
Health Science \& Society
3
LDRS 111

Year 2, spring

## First Year DMD Curriculum

Year 2, summer
*Capstone Experience 3-6 MPHP 652
Years 3-5: Regular DMD Curriculum of years 2-4
*Capstone Experience 3-6 MPHP 652


## Sample Template for Course Schedule for DMD/MPH, Model 2

Course Name (*indicates core) Credits Course \#

Year 1, fall
First Year DMD Curriculum
Sealant ACE
6
3
MAHE 145
Health Science \& Society
Year 1, spring
First Year DMD Curriculum

## Years 2: Second Year DMD Curriculum

| Year 3, fall |  |  |
| :---: | :---: | :---: |
| *Statistical Methods in Public Health | 3 | MPHP 405 |
| *History \& Philosophy of Public Health | 3 | MPHP 406 |
| *Epidemiology: Introduction to Theory \& Methods | 3 | MPHP 490 |
| Health Disparities | 3 | MPHP 510 |
| *Future of Public Health | 0 | MPHP 506 |
| Total Credits | 12 |  |
| Year 3, spring |  |  |
| *Introduction to Health Behavior | 3 | MPHP 411 |
| *Epidemiology of Environmental Health | 3 | MPHP 429 |
| *Health Management \& Policy | 3 | MPHP 439 |
| Community Interventions \& Program Evaluation | 3 | MPHP433 |
| *Building a Public Health Capstone | 0 | MPHP 507 |
| Total Credits | 12 |  |
| Year 3, summer |  |  |
| *Capstone Experience | 3-6 | MPHP 652 |

*Capstone Experience 3-6
MPHP 652
Years 4-5
Regular DMD curriculum: ycars 2-4
*Capstone Experience
3-6 Credits/year
MPHP 652

# CASE WESTERN RESERVE UNIVERSITY <br> SCHOOL OF DENTAL MEDICINE <br> Fall 2010 

## COURSE TITLES: <br> COURSE NUMBERS: <br> DEPARTMENT: <br> SEQUENCE YEAR: <br> CLOCK HOURS: <br> LDRS 111 (Didactic) <br> DIRECTOR: <br> Supplemental Faculty <br> OFFICE and CONTACT INFO

Health, Science, \& Society
LDRS 111
Community Dentistry
First
40

Dr. Catherine Demko, PhD
Dr. James Lalumandier, DDS, MPH
Room 217, 216-368-8804
catherine.demko@case.edu

## COURSE DESCRIPTION:

This 3 week intensive sequence concerning health and society will provide a frame for the student to view his or her professional education based on the mission of the profession: "to protect and improve the oral health of individuals and the society." This three week sequence provides the first experience with the problem-based learning format and further provides the content foundation in epidemiology and skills for evidence-based dentistry.

## COURSE GOALS:

The overall goal of the program is to provide information and orientation concerning the role of health, oral health, and the dentist in the maintenance and improvement of health of individuals and the society. Learning is organized around (1) four public health paradigms, (2) the health field theory of LaLonde, (3) epidemiological principles in clinical and population-based health, and (4) basic ethical principles of professional care. The problem-based cases will illustrate the four paradigms and the elements of the health field theory. They will also require the discussion of ethical principles and further demonstrate the application of the epidemiological principles taught in the lecture portion of the course. The topics in the small group PBL sessions will be reinforced with full-class presentations by guest experts using various formats (interviews, question and answer sessions, debates). Students will be expected to prepare reflection papers or complete class assignments from PBL cases as assigned.

General COURSE OBJECTIVES: By the end of this course, the student will:

1. Identify the role of dentistry in society and public health.
2. Define four basic principles of professional ethics.
3. Define barriers to access to health care.
4. Identify and describe the mechanism of action of fluoride and state the optimal fluoride intake.
5. Understand and apply a multi-factorial approach to dental caries.
6. Define the objectives of the epidemiologic method.
7. Apply epidemiological measures of incidence, prevalence and rates to systemic and dental morbidity; mortality.
8. Describe the epidemiology of oral disease by demographics and risk factors.
9. Distinguish association from causality.
10. Define reliability and validity in study design and study measures.
11. Define and recognize types and sources of bias and confounding in study measures.
12. Define and compute the sensitivity and specificity of a diagnostic test.
13. Understand the meaning of a confidence interval around a point estimate.
14. Define the relationship between sample size, confidence intervals and effect size.
15. Distinguish clinical from statistical significance.
16. Define the principles of Evidence-Based Dentistry (EBD).
17. Build a searchable clinical question using the PICO technique.
18. Examine the levels of evidence for EBD; perform the steps to critically appraise a journal article.
19. Explain how epidemiological evidence identified risk factors for an oral disease.
20. Understand the distribution and determinants of risk factors in a population.

Learning Objectives for the Problem-based cases are not included here, as they are part of the learning process in the PBL sessions and will be released on Fridays.

PREREQUISITE: None
FORMAT: Lecture \& Problem Based Learning.

## OUTCOME ASSESSMENT:

The students

1. must attain the minimum competency of $70 \%$ on all didactic summative (final) examinations.
must attain a minimum of $65 \%$ on formative quizzes/assignments prior to taking the didactic summative examination
2. must attain the minimum competency of $70 \%$ on the Fresno Competency Exam.

## GRADE SCALE:

Didactic $\geq 70=$ Pass $<70$ FAIL

- Grade adjustments will be made to a test if there was an error in calculation or in cases where the incorrect answer(s) were keyed.
- Discussions of test items with faculty are always encouraged; grade changes to Summative Evaluations will be made only if accompanied by written (word processor) description of rationale and reference (not just citation). This must be submitted within 1 week of the returned examination. No more than 3 test items will be reviewed.


## COURSE REQUIREMENTS:

Students are required to take tests and exams (formative and summative) on the days indicated in the syllabus. In accordance with school policy, absences are:

1. Excused - in case of illness documentation from the treating physician must be presented. A new test will be administered. Format and time will be at the discretion of the faculty.
2. Unexcused - when a student fails to give notification o an absence which can be predicted to be absolutely unavoidable, or fails to present an appropriate excuse. In most cases, an unexcused absence would result in a zero score for the particular test.

## REMEDIATION:

Fall Semester: Should a student earn a failing grade, he/she may have an opportunity to remediate and retest after Thanksgiving Break This will occur ONLY after the Student Promotions Committee has met and made a recommendation for Remediation.

If a student does not pass the remediation - s/he must repeat the course. The students must complete all aspects of Remediation Course, and score at least a 70\% on the remediation test.

## ATTENDANCE POLICY:

Attendance in class is expected. Failure to attend class with subsequent failure of the exams does not warrant remediation. In accordance with school policy, students who habitually fail to attend class will be denied tutoring through CWRU School of Dental Medicine.

## Required TEXTS:

Texts included in VitalSource digital library.
Gordis, L. Epidemiology. Third Edition. 2004. Elsevier Sanders
Jekel JF, Katz DL, Elmore JG and Wild DMG. Epidemiology, Biostatistics, and Preventive Medicine. Third Edition. 2007. Elsevier Sanders

Hackshaw A, Paul E, and Davenport E. Evidence-Based Dentistry: An Introduction. First Edition, 2006. Blackwell Munksgaard.

## Health, Science, \& Society SCHEDULE 1st SEMESTER (Fall 2010)

| DATE | LECTURE/PBL |
| :---: | :---: |
| Session 1 Mon. Aug. 9 | 8-9 am Administration of the HSRT $9-10 a m$ <br> Introduction to Health, Science and Society: Public and Population Health (1 hour) <br> Instructor: Dr. Demko |
| Session 2 Mon. Aug. 9 | $\begin{aligned} & 10-12 \mathrm{pm} \\ & \text { PBL: Fluoridation } \end{aligned}$ |
| Session 3 <br> Tues. Aug. 10 | $\begin{aligned} & 8-10 \text { am } \\ & \text { Guest Lecture } \end{aligned}$ |
| Session 4 <br> Weds. Aug. 11 | 8-10am <br> PBL: Fluoridation |
| Session 5 <br> Thurs. Aug. 12 | 10-12 <br> Fundamentals of Epidemiology: Incidence and Prevalence (1 hr) <br> Oral Health Epidemiology (1 hr) |
| Session 6 Fri. Aug. 13 | $\begin{aligned} & \text { 10am -12pm } \\ & \text { PBL Fluoridation } \end{aligned}$ |
| Session 7 <br> Fri. Aug. 13 | 1-3 pm <br> Observational Studies: Design Issues (1 hr) <br> Observational Studies: Analysis (1 hr) |
| Session 8 Mon. Aug. 16 | $\begin{aligned} & \text { 8-10 am (2 hour) } \\ & \text { PBL: "lt's Just a Tooth" } \end{aligned}$ |
| Session 9 Mon. Aug. 16 | 10-12 pm <br> Examining Associations (1hr) <br> Statistical Literacy (1 hr) |
| Session 10 Tues. Aug. 17 | $\begin{aligned} & 8-10 \mathrm{am} \\ & \text { Experimental Studies: Design Issues (1hr) } \\ & \text { Experimental Studies: Analysis (1hr) } \end{aligned}$ |
| Session 11 <br> Wed. Aug. 18 | $\begin{aligned} & \text { 8-10 am } \\ & \text { PBL: "It's Just a Tooth" } \end{aligned}$ |
| Session 12 <br> Thursday. Aug. 19 | 10-12 am <br> Detecting Disease: Screening and Diagnostics (1hr) Systematic Reviews (1hr) |
| Session 13 <br> Fri. Aug. 20 | $10 \mathrm{am}-12 \mathrm{pm}$ PBL: "It's Just a Tooth" |
| Session 14 <br> Fri. Aug. 20 | $1-3 \mathrm{pm}$ (2 hour) Guest Lecture |


| Session 15 <br> Mon. Aug.23 | 10-12 pm (2 hour) <br> PBL: Where's Spot: An Oral Cancer Case |
| :--- | :--- |
| Session 16 | 8am -10 am <br> Critical Appraisal of the Literature (1hr) <br> Evidence-based Dentistry (1hr) |
| Session 17 <br> Wed. Aug. 25 | 8am - 10 am <br> PBL: Where's Spot: An Oral Cancer Case |
| Session 18 <br> Thurs. Aug. 26 | 10am -12pm <br> Review |
| Session 19 <br> Fri., Aug. 27 | 10 am-12 pm (2 hour) <br> PBL: Where's Spot: An Oral Cancer Case |
| Session 20 <br> Wed., Sept 1. | FINAL EXAM (3 hrs: 3-6 pm ) |

# CASE WESTERN RESERVE UNIVERSITY SCHOOL OF DENTAL MEDICINE Fall 2010 

## COURSE TITLES: <br> COURSE NUMBERS: <br> DEPARTMENT: <br> SEQUENCE YEAR: <br> CLOCK HOURS: <br> (Didactic, Lab \& Clinical) <br> OUTREACH CLINIC HOURS: <br> DIRECTOR: <br> SUPPORTING INSTRUCTIONAL STAFF: <br> OFFICE and CONTACT INFO

Kristin Williams, DDS, MPH

James Lalumandier, DDS, MPH
2nd floor , 2163682392
kaw14@case.edu

## COURSE DESCRIPTION:

The didactic portion of the course provides generalized background and current tools needed to enable students to provide dental sealants and other preventive procedures for children in the Cleveland Metropolitan School District (CMSD).

## COURSE GOALS:

1. The student will develop an understanding of ergonomics, chair positioning and dental assisting.
2. The student will develop the skills necessary for applying fluoride varnish and fabricating mouth guards.
3. The student will develop the skills necessary for the delivery of dental sealants to the students of CMSD.
4. The students will acquire a fundamental knowledge of the conditions, medications found within the CMSD students and the student will be prepared to identify risk factors associated with common medical emergencies.
5. The student will acquire a fundamental knowledge of the epidemiology and mechanism of dental disease found in children.
6. The student will develop skills necessary for prevention practices and behavior management in children.
7. The student will develop a fundamental knowledge and develop necessary skills to practice correct infection control procedures in an outreach setting.
8. The student will develop skills to set-up, break-down and work with portable
equipment in an outreach dental setting.
9. The student will develop the skills necessary to treat patients in a multi-cultural setting understanding the impact and responsibility of the dental professional and the role of public health dentistry in our society.

## COURSE OBJECTIVES:

By the end of this course, the student will:

1. Describe ergonomically correct chair positioning, aspiration and retraction techniques. (D4)
2. Prepare and place dental sealants to the occlusal surfaces of permanent molar teeth in children.(M2)
3. Identify non-carious, permanent molars in children which are a candidate for dental sealants. (H3)
4. Identify and describe potential medical emergencies and common medications taken by children. (M6)
5. Fabricate custom mouth guards using molds of their own mouth. (L4)
6. Identify proper technique and placement of fluoride varnish. (L6)
7. Describe the importance of preventing dental injuries.(L10)
8. Describe and reproduce correct infection control procedures in an outreach setting.(L1)
9. Describe and implement the ethical responsibilities of a dental practitioner in treating a diverse population. (L3)
10. Describe the epidemiology and mechanism of dental disease and prevention practices for children. (H2)

## Reviewed and revised 7-14-2008

## CORE CWRU COMPETENCIES:

This course provides didactic instruction that is designed to furnish foundation knowledge that is necessary for the development of a number of CWRU School of Dental Medicine Competencies. The successful completion of this course contributes to the development of the following competencies:
H. 2 Apply appropriate interpersonal and communication skills (CODA 2-17)
H. 3 Apply preventive strategies for patients based on their oral health status and risk factors (CODA 2-25c)
H. 4 Apply biological, clinical, and behavioral principles in patient-centered oral health care. (CODA 2-16)
M. 1 Recognize the principles involved in community interventions to improve oral health and general health, and participate in clinical experiences in oral health improvement (CODA 225c)
M. 4 Demonstrate knowledge of common drugs used in dental and medical situations related to the practice of dentistry (CODA 2-25e)
D. 4 Assess the treatment needs of special care patients (CODA 2-26)
L. 1 Participate in the delivery of oral health care for the individual and for groups (CODA 2-18)
L. 3 Apply the principles of ethical reasoning and professional responsibility as they pertain to patient care and practice management (CODA 2-21)
L. 4 Recognize the limits of their expertise through self-evaluation (CODA 2-22)
L. 6 Manage patient information (CODA 5-8)
L. 10 Manage a diverse patient population and display the interpersonal skills to communicate and function in a multi-cultural work environment (CODA 2-17)

## PREREQUISITE: None

FORMAT: Lecture, Laboratory, Clinical, and Outreach Experience.

## OUTCOME ASSESSMENT:

The students

1. Must attain the minimum competency of $70 \%$ on all didactic summative examinations.
2. Will attend all lecture, lab and clinical sessions as scheduled for their group.
3. Will successfully complete and pass the cultural competence reflection paper. A detailed description of the assignment will be distributed in class.

## GRADE SCALE:

Didactic and Lab* $\geq 70=$ Pass $<70$ FAIL

## COURSE REQUIREMENTS:

Students are required to take ALL tests and exams (formative and summative) on the days indicated in the syllabus. In accordance with school policy, absences are:
3. Excused - must be documented with student affairs. A new test will be administered. Format and time will be at the discretion of the faculty.
2. Unexcused - when a student fails to give notification of an absence which can be predicted to be absolutely unavoidable, or fails to present an appropriate excuse. In most cases, an unexcused absence would result in a zero score for the particular test.
Outreach Experience. Any absence from outreach clinical experiences must be approved by your group faculty and course director.

## COURSE DEFICIENCY POLICY:

Professional behavior is part of the grade. Laboratory \& Clinical: All students must complete an approved sealant in both clinic and lab. The student will repeat the procedure until they are deemed competent in sealant placement. Students must submit all projects when due. More than one late project will result in failure (and remediation) in laboratory portion of the course.

## REMEDIATION:

Fall Semester: Should a student earn a failing grade, he/she may have an opportunity to remediate and retest after Thanksgiving Break This will occur ONLY after the Student Promotions Committee has met and made a recommendation for Remediation.

If a student does not pass the remediation - s/he must repeat the course. The students must complete all aspects of Remediation Course, and score at least a 70\% on the remediation test.

## ATTENDANCE POLICY:

Attendance in class is expected. Failure to attend class with subsequent failure of the exams does not warrant remediation. In accordance with school policy, students who habitually fail to attend class will be denied tutoring through CWRU School of Dental Medicine.

## Required TEXTS:

Online Vital source Library.
Jong's Community Dental Health, 5th Edition
Dentistry, Dental Practice, and the Community by Brian A. Burt and Stephen A. Eklund.

## SCHEDULE FOR MAHE 145

OUTREACH PREVENTIVE DENTISTRY COURSE
(Lecture Room NOA250/290 and Sim Clinic)

| DATE | TIME | LECTURER | LECTURE TOPIC | ROOM \#S |
| :---: | :---: | :---: | :---: | :---: |
| August 11, 2010 Weds. | 1:00-2:00 p.m. | Drs. Lalumandier | Introduction and Sealant Video | NOA250 |
|  | 2:00-3:00 p.m. | Drs. Lalumandier and Williams | Introduction of Dental Sealant Faculty and Staff | NOA250 |
|  |  | Angela Harris \& | Health Educator ( $2^{\text {nd }}, 3^{\text {rd }}$, and $6^{\text {th }}$ Graders) |  |
|  |  | Lisa Jevack | Health Educator (Pre-K, K and 1 ${ }^{\text {st }}$ |  |
|  |  |  | Graders) |  |
|  |  | Sherry Norman | Referral Coordinator |  |
|  | 3:00 p.m. - 5:00 p.m. | Dr. Williams | Ergonomics | NOA250 |
| August 13, 2010 Fri. | 3:00 p.m. - 5:00 p.m. | Dr. Ferretti | Epidemiology and Mechanisms of Dental Disease and Prevention Practices for Children and Fluoride Varnish Technique | NOA250 |
| August 18, 2010 Weds. | 1:00 pm - $3: 00 \mathrm{pm}$ | Sealant Faculty and Staff Dr. Williams | Alginate Impression (Groups I, II, III) | West Lab |
|  | 3:00 p.m. - 5:00 p.m. | Dr. Williams | Demonstration of Dental Assisting | NOA 250 |
| August 20, 2010 <br> Fri. | 3:00-5:00 p.m. | Chandra Drews | Fluoride Varnish Experience (Group I) | Sim Lab |
|  |  | Sealant Staff | Dental Assisting Experience (Group II) | NOA 250 |
| August 25, 2010 Weds. | 1:00 pm - 3:00 pm | Dr. Williams | Acid-Etch Technique in Caries Prevention | NOA250 |
|  |  |  | Pit and Fissue Sealants and Demonstration |  |
|  | 3:00 p.m. - 5:00 p.m. | Dr. Faddoul | CPR | NOA250 |
| $\text { August 27, } 2010$Fri. | 1:00 pm - 5:00 pm | Chandra Drews | Fluoride Varnish Experience (Group II) | Sim Lab |
|  |  | Sealant Staff | Dental Assisting Experience (Group III) | NOA 260 |
|  |  | Dr. Faddoul Chandra Drews | CPR Hands-On (Group I) <br> Fluoride Varnish Experience (Group III) | NOA 290 <br> Sim Lab |
|  |  | Sealant Staff | Dental Assisting Experience (Group I) | NOA 260 |
|  |  | Dr. Faddoul | CPR Hands-On (Group II) | NOA 290 |
| August 31, 2010 <br> Tues. | 1:00 pm - $3: 00 \mathrm{pm}$ | Dr. Faddoul | Infection Control | NOA290 |

September 3, 2010 Fri.

September 7, 2010
Tues.
September 10, 2010 Fri.

September 14, $2010 \quad 1: 00 \mathrm{pm}-3: 00 \mathrm{pm}$ Tues.

September 17, 2010 Fri.

September 21, $2010 \quad 1: 00 \mathrm{pm}-3: 00 \mathrm{pm}$
Tues.
September 24, 2010 3:00- 5:00 p.m. Fri.

September 28, 2010 Tues.

October 1, 2010
Fri.

October 5, 2010
Tues.

October 8, 2010 Fri.

October 12, 2010 Tues.

October 15, 2010 Fri.

October 19, 2010 Tues.

October 22, 2009 Fri.

October 26, 2010 Tues.

3:00 p.m. - 5:00 p.m. Dr. Ferretti
$1: 00 \mathrm{pm}-3: 00 \mathrm{pm}$
Dr. Narendran

3:00 p.m. - 5:00 p.m.
Dr. Lalumandier Dr. Houston

Dr. Lalumandier

Dr. Lalumandier Dr. Williams

Dr. Jurevic

Dr. Lalumandier Dr. Houston

Dr. Jurevic
1:00-2:00 p.m. 2:00-3:00 p.m.

Dr. Jim Houston

3:00-5:00 p.m.
$1: 00 \mathrm{pm}-3: 00 \mathrm{pm}$

3:00-5:00 p.m.
$1: 00 \mathrm{pm}-3: 00 \mathrm{pm}$

3:00-5:00 p.m.
$1: 00 \mathrm{pm}-3: 00 \mathrm{pm}$

3:00-5:00 p.m.
$1: 00 \mathrm{pm}-3: 00 \mathrm{pm}$

Dr. Williams
Dr. Lalumandier Dr. Williams
Dr. Lalumandier Dr. Williams

Dr. Coreno \& Dr. Brett

Dr. Lalumandier Dr. Houston

Dr. Narendran

Sealant Placement (Group III)

Cultural Competency

Sealant Placement (Group I)

Mouthguard Fabrication (Group II)

Ethics
Sealant Placement (Group I)

Importance in Preventing Dental Injuries
\& Lab Demonstration on Custom
Mouthguards

Sealant Placement (Group II)

Public Health

Dr. Lalumandier
Dr. Houston
Dr. Coreno \& Dr Brett

Dr. Williams

NOA290

NOA 290

Sim Lab

Sim Lab \& West Lab

Sim Lab

NOA 290

Sealant LAB Exercise Sim Lab

NOA 290
NOA 290
Diagnodent Lecture \& Demonstration

NOA 290
Behavior Management with Children

Medications

Common Medical Conditions \& Medications

Ortho Clinic

Ortho Clinic

NOA 250

Ortho Clinic

NOA 250

Ortho Clinic

Lab Room 216
(off West lab)
NOA 250

October 29, 2010
Fri.
3:00-5:00 p.m.
Dr. Lalumandier Dr. Williams Brett

Greg Jagger

Dr. Lalumandier Dr. Williams

Dr. Coreno \& Dr. Mouthguard Fabrication Brett

Dr. Williams Fri.

Dr. Williams
3:00-5:00 p.m.

Dr. Coreno \& Dr. Mouthguard Fabrication Lab Room 216
(Group I)

Ethics

Consent/Medical History/Treatment
NOA290
Ortho Clinic
(off West Lab)
Portable Equipment Set-Up Procedures NOA 250
(Group I, II, III)

Sealant Placement (Group III) Ortho Clinic

Lab Room 216
(off West Lab)

NOA 250

Documentation

## SCHOOL BASED CLINICAL COMPONENT

November 29, 2010 -
December 10, 2010
and
January 24, 2011 January 28, 2011

SCHOOL-BASED CLINICAL COMPONENT

SCHOOL -BASED CLINICAL COMPONENT

## Recent Student and Personal Awards, Sena Narendran

Student Awards at CWRU:
Ms. Jennifer Sanders, Junior Dental Student, Case Western Reserve University ..... 2011
First Place, Predoctoral Dental Student Merit Award The American Association of Public Health Dentistry
Ms. Jennifer Sanders, Junior Dental Student, Case Western Reserve University2011
Gunther M. Hans Award for Oral Presentation, the $30^{\text {th }}$ Annual Professionals DayCase School of Dental Medicine, Case Western Reserve University
Ms. Jennifer Sanders, Sophomore Dental Student, Case Western Reserve University ..... 2010
American Public Health Association (APHA) Anthony Westwater Jong Memorial Community Dental Health Preprofessional Award
Ms. Avni Maru, Sophomore Dental Student, Case Western Reserve University ..... 2009 American Dental Education Association (ADEA)/Johnson and Johnson Preventive Dentistry Scholarship
Ms. Ashley Gibbs, Junior Dental Student, Case Western Reserve University ..... 2009
American Dental Education Association (ADEA)/Johnson and Johnson Preventive Dentistry Scholarship
Ms. Avni Maru, Sophomore Dental Student, Case Western Reserve University ..... 2009
Second Honors, Clinical Science Presentation, the $29^{\text {th }}$ Annual Professionals Day Case School of Dental Medicine, Case Western Reserve University
Ms. Jean Felton, Junior Dental Student, Case Western Reserve University ..... 2008 American Association for Dental Research Bloc Travel Grant
Ms. Ami Maru, Junior Dental Student, Case Western Reserve University ..... 2008First Place, Predoctoral Dental Student Merit AwardThe American Association of Public Health Dentistry
Ms. Ami Maru, Junior Dental Student, Case Western Reserve University ..... 2008
Honorable Mention, Poster Competition, Research ShowCase
Ms. Anita Bhavnani, Sophomore Dental Student, Case Western Reserve University ..... 2007
Honorable Mention, Poster Competition, Research ShowCase
Ms. Anita Bhavnani, Sophomore Dental Student, Case Western Reserve University ..... 2007American Dental Education Association (ADEA)/Listerine
Preventive Dentistry Award
Ms. Anita Bhavnani, Sophomore Dental Student, Case Western Reserve University ..... 2007
International Association for Dental Research (IADR)/ColgatePrevention in Research AwardMs. Anita Bhavnani, Sophomore Dental Student, Case Western Reserve University2007Dentsply Student Clinician American Dental Association Award
The $27^{\text {th }}$ Annual Professionals Day, Case School of Dental Medicine, CWRU
Ms. Ami Maru, Sophomore Dental Student, Case Western Reserve University ..... 2007
Second Honors, Clinical Science Presentation, the $27^{\text {th }}$ Annual Professionals Day Case School of Dental Medicine, Case Western Reserve University
Personal Awards
Excellence in Teaching Award, National Dental Association ..... 2003
Outstanding Service Award to promote Optimal Oral Health for All ..... 2005
American Association of Public Health Dentistry
Special Merit Award, American Association of Public Health Dentistry ..... 2009

## ME Program Option for Graduates of Case Western Reserve University with BS degrees in Engineering and Computer Science

## Background:

The Case School of Engineering (CSE) has recently received approval from the Ohio Board of Regents and the Higher Learning Commission of the North Central Association to offer all Master of Science (MS) degrees and the Master of Engineering (ME) degree via distance delivery mechanisms. Many CSE BS degree recipients choose to enter the job market directly after graduation and are seeking engineering centric careers in industry. In 1995 CSE began offering the Master of Engineering degree for engineers in local industry with the objective of providing them with 18 credit hours of core courses in business and professional development along with 12 credit hours of advanced technical courses. At a recent industry advisory committee meeting for the Department of Biomedical Engineering, it was suggested that we consider offering a ME degree option for CSE BS degree recipients that would allow them to transfer up to 6 credit hours of approved technical electives from their BS program to the ME program. To date between 10 and 15 students have expressed interest in the ME program after graduation, and we expect to enroll between 20 and 25 students per year in the program going forward. CSE currently has the resources to support the program and we will coordinate with the Office of Registrar on the internal transfer of credit as appropriate.

## Proposal:

Students that have received a BS degree in engineering or computer science from CSE, and who are accepted for admission into the Master of Engineering (ME) degree program within a period of 24 months after graduation, are entitled to transfer up to 6 credit hours of course work from their BS degree to their ME degree program.
The courses to be considered for transfer should be specified at the time of application to the ME program, and require approval by the director of the Master of Engineering Program and the Dean of Engineering. Once approved, a request for an internal transfer of credit will be sent to the Registrar, and these courses will be included in the student's planned program of study for the ME degree.

## Proposal for Engineering Masters Education in Wireless Health in San Diego

## Contents:

- Letter from Dean Jeffery Duerk
- Letter from the chairs of biomedical engineering (Robert F. Kirsch) and electrical engineering and computer science (Michael Branicky)
- Pro-forma budget
- Program Description
- Course Descriptions

Jeffrey L. Duerk, Ph.D.
Dean, Case School of Engineering
Leonard Case Professor
Director, Case Center for Imaging Research

Charles Rozek, Ph.D.
Dean, Graduate Studies
Case Western Reserve University
Cleveland, OH 44106
Dear Chuck,
It is my pleasure to provide this note affirming my strongest support for the proposed Master of Science degrees in Wireless Health to be offered by the Departments of Electrical Engineering \& Computer Science (EECS) and Biomedical Engineering (BME). As you are well aware, approximately two years ago the faculty leaders in these departments, led by Professor Mehran Mehregany, began the conceptualization, design and implementation of the curriculum. I was Chairman of BME at the time of the initial development and initial deployment and so I am very familiar with the program.

In its current form, the program is offered directly and via distance learning as a certificate program that has demonstrated significant need within the educational marketplace and provided an impactful and meaningful curriculum to the participating students. There are approximately 30 full paying participants and it is anticipated that the demand will continue to be high; operationally it is also going quite well. A separate financial analysis and budget impact statement has been provided for the program.

The BME and EECS departments' committees on graduate education have reviewed the program and its future implementation and both voted affirmatively to support the MS degree option. The votes occurred on March 15 (BME) and March 16 (EECS). The Graduate Education Committee of the School of Engineering has also reviewed this proposal and they too voted affirmatively on March 20. As dean of the School of Engineering, I will assume operational, curricular and financial oversight and responsibility for the program.

I would be grateful if this could be presented to the appropriate committee of the CWRU Faculty Senate for approval as soon as possible so we can successfully transition from the certificate to the degree stage of this important program.


Professor of Biomedical Engineering and Radiology
Dean, School of Engineering
Leonard Case Professor of Engineering
Director, Case Center for Imaging Research
Case Western Reserve University

March 27, 2012
Charles Rozek, Ph.D.
Dean, School of Graduate Studies
Dear Dean Rozek,
We are writing to request permission to offer our Masters Program in Electrical Engineering (EE) and Biomedical Engineering (BME) in San Diego, with courses that provide an innovative curriculum in the area of wireless health. Details of the proposed program are provided in the two attachments.

Many companies (over 300) are involved in the rapidly growing wireless health industry. Few of the engineers and others employed in this industry have graduate training in areas that are important to the success of their companies. CSE is in a unique position to provide graduate level training because of our expertise in instrumentation and biomedical engineering, and this program will offer integrated training that many of the employees desire. The proposed masters education program will build on our recent success in offering a program awarding a Certificate in Wireless Health.

We expect approximately 25 students to complete the certificate this May, and many of these same students can be expected to continue to take additional courses in the area of wireless health to earn a masters in BME or EE, beginning as early as this fall. We will continue to offer the Certificate program and will have a mix of certificate and masters students on a regular basis.

We have been fortunate to have a close working relationship with Qualcomm (San Diego), a leading wireless health company, as we roll out our program. CSE is working closely with Qualcomm to develop mutually beneficial research and education interactions. Qualcomm has made available an auditorium on their campus to hold the courses, including access for students who are not Qualcomm employees. In addition, Qualcomm awarded an \$80,000 grant to help start up the Certificate program, and has provided exhibit space at major conferences to help promote the educational offerings.

Prof. Mehran Mehregany, with appointments in both EECS and BME, and who is based in San Diego, is leading the startup of this program, and will continue to be its leader. In addition, Prof. Pedram Mohseni in EECS will be the campus based anchor faculty member who will participate in the program and will work with Prof. Mehregany to build a research program paralleling the educational program. We expect additional faculty to undertake research in this field, as its importance expands. For example, wireless health is featured prominently in the recent strategic plan of the National Institute of Biomedical Imaging and Bioengineering of the NIH .

Faculty teaching in this program will have CWRU faculty appointments, typically in the EECS or BME departments of the Case School of Engineering, and all appointments will follow the normal processes and standards of review. We anticipate appointing some adjunct faculty who are based in San Diego, and who are currently employed in the wireless health care industry. Departments handle registration by normal processes, and applications go through Graduate Studies.

Students are supported by normal mechanisms of office hours and educational clinics that have been offered on-site by Dr. Mehregany. As Program Director, he has overall responsibility for the academic support of the students in the program, assisted by the sponsoring departments. He will serve as advisor for the students physically based in San Diego. Students enrolled in the program on the main campus will be assigned a program faculty advisor on campus. Otherwise distance students will also be advised by the Program Director, assisted by other program faculty as the class size grows. The Program Director will also be the student resource for addressing academic issues brought up by students. He will be assisted by the program faculty as necessitated by increasing class size or the nature of the issue to be addressed.

A distinctive, and highly valuable characteristic of our program is its curriculum, with several integrated courses designed specifically to address the needs of engineers working in this nascent interdisciplinary area. Other programs, including one at USC offer less distinctive programs that mostly assemble existing but disconnected courses related to wireless health. Prof. Mehregany is in the process of editing a textbook that will serve the needs of the foundation course "Introduction to Wireless Health". This will be the first textbook with this focus.

Development of a financial model for the program has been aided by the launch of the certificate program this last year. The pro-forma model, included as an attachment, shows a profit even in the first year, and a growing income in succeeding years.

We hope that we have adequately explained our proposal to you. We are committed to establishing this program and would be happy to address any concerns quickly.

Sincerely,


Robert F. Kirsch, Ph.D Prof. BME
Interim Chairman,BME


Michael Branicky, Sc.D.
Prof. EECS
Chairman, EECS

## Pro Forma Budget - Wireless Health Graduate Education Program

| Student Counts | FY13 | FY14 | FY15 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| MS-FT | 15 | 18 | 20 |
| MS-PT | 5 | 8 | 10 |
| Cert | 5 | 8 | 10 |
| Inputs |  |  |  |
| Total students in program | 25 | 34 | 40 |
| Credit hours per Cert. (fall\&spring) perMS-PT | 9 | 9 | 9 |
|  | 9 | 9 | 9 |
| perMS-FT | 27 | 27 | 27 |
| Total credits in program | 495 | 630 | 720 |
| Tuition Rate | 1546 | 1608 | 1672 |
| Certificate Credits | 45 | 72 | 90 |
| MS PT Credits | 45 | 72 | 90 |
| MS FT Credits | 405 | 486 | 540 |
| Certificate Tuition Revenue MS-PT Tuition Revenue MS FT Tuition Revenue | 69,570 | 115,764 | 150,494 |
|  | 69,570 | 115,764 | 150,494 |
|  | 626,130 | 781,410 | 902,963 |
|  |  |  |  |
| Income |  |  |  |
| Tuition Income from Students less fee est. Summer tuition | 749,965 | 992,680 | 1,179,872 |
|  | 0 | 0 | 0 |
| Expense |  |  |  |
| Course Instructors | 120,000 | 123,600 | 135,960 |
| Faculty Summer Salary | 22,044 | 22,705 | 23,386 |
| Staff Support | 30,000 | 60,000 | 61,800 |
| Faculty Fringe | 15,613 | 24,812 | 7,250 |
| Video Recording | 15,000 | 15,450 | 16,995 |
| Books for Instructors | 3,000 | 3,090 | 3,183 |
| Misc copying/office supplies/etc. | 3,000 | 3,090 | 3,183 |
| Telephone charges | 2,280 | 2,348 | 2,419 |
| Office supply needs | 600 | 800 | 1,000 |
| Marketing(producton/advertise/shows/etc | 20,000 | 20,600 | 21,218 |
| Travel | 36,000 | 37,080 | 38,192 |
| Consulting Recruiter fees | 30,000 | 30,900 | 31,827 |
| Advertisement | 24,000 | 24,720 | 25,462 |
| Business development meetings | 12,000 | 12,360 | 12,731 |
| Equipment | 25,000 | 15,000 | 15,450 |
| Subtotal | 358,537 | 396,555 | 400,055 |
| Net Return | 391,427 | 596,125 | 779,816 |

## Graduate Study in Wireless Health

 Master of ScienceFall 2012
Distance offering? Yes, online!
Distance enrollment? Nationwide!


WIRELESS MARKET \$1.8T

HEALTHCARE MARKET \$4.5T

THE WIRELESS HEALTH MARKET IS PROJECTED TO MORE THAN TRIPLE FROM \$2.7B IN 2007 TO \$9.6B IN 2012

## Program Description

Ubiquitous connectivity and computing are bringing about unprecedented mobility-allowing working, entertainment, shopping, socializing, gaming, etc., anytime, anywhere. This trend is also infiltrating health care, promising significant improvements in quality, convenience, reach and cost of care through "wireless health" solutions. Wireless health solutions enable diagnosis, therapy and monitoring of health-related conditions by tracking relevant biomarkers, managing treatment regimen and monitoring progress - while the patient goes about his/her daily life, for the most part.

This course-only (i.e., no thesis required) Master of Science (MS) degree in electrical or biomedical engineering offers a rich set of courses, which together provide a solid grounding in fundamentals and a custom tailoring of breadth/depth of study in wireless health. Students who complete this 9-course, 27credit program will have the requisite knowledge to enter and advance the wireless health industry.

## Educational Objectives

The MS degree provides a comprehensive program that combines theory and practice to cover the entire wireless health value chain, positioning students with exceptional multidisciplinary training for entering and advancing the emerging field of wireless health. A strong basis in fundamentals, across the spectrum of requisite disciplines, is built through 6 topic-specific required courses. Each student further personalizes depth and breadth of study through selection of at least 3 courses from the menu of electives. The required courses and starting menu of electives are outlined in the following table. Each student (team) develops a product plan in E6, which may become the basis of a business plan in E9.

| Course <br> Type | \# | Course Title (prerequisite) each course is 3 credit hours; MS requires $\geq 27$ credits | Format Option | Semester Offered |
| :---: | :---: | :---: | :---: | :---: |
| Required | R1 | Introduction to Wireless Health | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | R2 | The Human Body | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | R3 | Health Care Delivery Ecosystem | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | R4 | Wireless Communications and Networking | LEC/ITN | Spring \& Fall ${ }^{1}$ |
|  | R5 | Biomedical Sensing Instrumentation (R1, R2) | LEC/ITN | Spring \& Fall ${ }^{1}$ |
|  | R6 | Life in a Hospital, Clinic or Care Center (R1, R2, R3) | Rotation | Summer |
| Elective | E1 | Principles of Health Care Management (R3) | ITN | Fall \& Spring |
|  | E2 | Introduction to Medical Informatics | ITN | Fall \& Spring |
|  | E3 | Clinical Decision Support Systems | ITN | Fall \& Spring |
|  | E4 | Advance Biomedical Instrumentation (R5) | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | E5 | Mobile Persuasion \& User Experience Engineering | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | E6 | New Health Product Development | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | E7 | RF Engineering for Medical Devices (R4) | LEC/ITN | Spring \& Fall ${ }^{1}$ |
|  | E8 | FDA Medical Device Regulations | LEC/ITN | Spring \& Fall ${ }^{1}$ |
|  | E9 | New Health Technology Ventures (E6) | LEC/ITN | Spring \& Fall ${ }^{1}$ |

LEC: Onsite in San Diego ITN: Distance Learning - Online format ${ }^{1}$ Only ITN in the flagged semester

CASE SCHOOL

## Who Should Attend?

Students with engineering or physical science backgrounds are positioned well to complete the MS program. Students with clinical, health sciences or management backgrounds can also succeed if they have or are willing to gain the necessary background underpinning the engineering-centric courses.

## Admission Requirements

Students will be admitted through the School of Graduate Studies as degree-seeking graduate students in the Case School of Engineering (CSE). Admission will be based on general CSE admission standards for graduate programs, including a minimum GPA of 3.2 in a relevant Bachelor of Science program. GRE is not required. TOEFL is waived for students that have completed a degree program where the language of instruction is English. Otherwise, TOEFL scores must be greater than 100 for the internet-based test (or 550 for the paper-based test).

## Award of the Master of Science (in Electrical or Biomedical Engineering)

Each MS student must complete his/her Program of Study with a cumulative grade point average of 3.0 or greater. A Program of Study must include the 6 required courses and at least 3 elective courses, for a minimum of 27 total credit hours. The courses outlined in the above table constitute a pre-approved Program of Study. Students wishing to substitute other courses, either because they have completed a substantially equivalent graduate level course at another institution of higher education or to obtain a different emphasis, may submit a Revised Program of Study for approval by their academic advisor, the department and the Office of Graduate Studies before their second semester. Students can apply for transfer of credit of up to two equivalent graduate courses (6 credit hours) completed (with a grade of B or better) at another institution of higher learning and not applied toward another degree.

## Timeline for Completion

The MS program may be completed in one calendar year (i.e., consecutive fall, spring and summer semesters) on a full-time basis or in up to three calendar years on a part-time basis. Some of the courses outlined in the above table have one or more prerequisites, which must be considered in constructing one's desired timeline.

## Online Option, Distance Learning and Program Faculty

Yes! All lectures and course material are readily available to the students online. The MS degree offering is available to students nationwide through online resources. The faculty who are teaching in this program have appointments typically in the Electrical Engineering \& Computer Science or Biomedical Engineering Departments of the Case School of Engineering. Their appointments follow the normal processes and standards of internal review.

CASE SCHOOL

## Class Times and Location

This MS program is an offering of the Case Western Reserve University's San Diego Programs, which follow the same academic calendar as the main campus. Classes are in San Diego, California in the technology-centric Sorrento Mesa area. Each course has one lecture per week, typically from 6:00 PM to 8:30 PM PDT on Mondays, Tuesdays, Wednesdays or Thursdays. In reference to the above table of courses, for Fall 2012, R1 is planned for Tuesdays, R2 for Wednesdays and R3 for Thursdays. E5 and E6 are planned for Mondays. Online version of a course is the same as that onsite, in the semester that the onsite version is offered. Otherwise, the online version is the most recent onsite version.

## Tuition and Financial Aid

The 2011-2012 tuition at Case Western Reserve University is $\$ 1,487 /$ credit hour. Case Western Reserve University does not provide internal financial aid for this program. You should inquire if your employer offers a tuition benefit program. You may also contact the Office of Financial Aid at 216-368-4530 or financialaid@case.edu to research external aid programs that may be available to you, for example through Federal initiatives.

## Application Deadline and Process

Applications for the Fall 2012 MS program offering will be accepted until all spots are filled or August 7, 2012, whichever comes first. We encourage early application since capacity is limited and spots will be awarded as applications are received and evaluated.

To apply, go to http://engineering.case.edu/wireless_health, download the MS application, and complete and submit it. Applications should be submitted through the address listed on the application form.

Your application package must include three letters of recommendation from references who can speak to your abilities and accomplishments that position you to successfully complete the MS program. The recommenders should not share the content of the letters of recommendation with you or other third parties. Each letter should be placed in a sealed envelope, with the recommender's signature across the seal, and be submitted as part of the application package.

You will receive an e-mail acknowledgement after we have your complete application package. We will inform you of our decision within six weeks of having received your complete application package, unless we seek additional information.

## Want more Information?

Visit http://engineering.case.edu/wireless_health
Questions can be sent to: wirelesshealth@case.edu

CASE SCHOOL
OF ENGINEERING
CASEWESTERNRESERVE

# Graduate Study in Wireless Health 

| Course <br> Type | \# | Course Title (prerequisite) <br> each course is 3 credit hours; MS requires $\geq 27$ credits | Format Option | Semester Offered |
| :---: | :---: | :---: | :---: | :---: |
| Required | R1 | Introduction to Wireless Health | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | R2 | The Human Body | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | R3 | Health Care Delivery Ecosystem | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | R4 | Wireless Communications and Networking | LEC/ITN | Spring \& Fall ${ }^{1}$ |
|  | R5 | Biomedical Sensing Instrumentation (R1, R2) | LEC/ITN | Spring \& Fall ${ }^{1}$ |
|  | R6 | Life in a Hospital, Clinic or Care Center (R1, R2, R3) | Rotation | Summer |
| Elective | E1 | Principles of Health Care Management (R3) | ITN | Fall \& Spring |
|  | E2 | Introduction to Medical Informatics | ITN | Fall \& Spring |
|  | E3 | Clinical Decision Support Systems | ITN | Fall \& Spring |
|  | E4 | Advance Biomedical Instrumentation (R5) | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | E5 | Mobile Persuasion \& User Experience Engineering | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | E6 | New Health Product Development | LEC/ITN | Fall \& Spring ${ }^{1}$ |
|  | E7 | RF Engineering for Medical Devices (R4) | LEC/ITN | Spring \& Fall ${ }^{1}$ |
|  | E8 | FDA Medical Device Regulations | LEC/ITN | Spring \& Fall ${ }^{1}$ |
|  | E9 | New Health Technology Ventures (E6) | LEC/ITN | Spring \& Fall ${ }^{1}$ |

LEC: Onsite in San Diego ITN: Distance Learning - Online format ${ }^{1}$ Only ITN in the flagged semester

## Bulletin Descriptions of the Courses

R1 - Introduction to Wireless Health: Study of convergence of wireless communications, microsystems, information technology, persuasive psychology, and health care. Discussion of health care delivery system, medical decision-making, persuasive psychology, and wireless health value chain and business models. Understanding of health information technology, processing of monitoring data, wireless communication, biomedical sensing techniques, and health monitoring technical approaches and solutions.

R2 - The Human Body: Study of Structural organization of the body. Introduction to anatomy, physiology, and pathology, covering the various systems of the body. Comparison of elegant and efficient operation of the body and the related consequences of when things go wrong, presented in the context of each system of the body. Introduction to medical diagnosis and terminology in the course of covering the foregoing.

R3 - The Health Care Delivery Ecosystem: Heath care delivery across the continuum of care in the United States, including health policy and reform, financing of care, comparative health systems, population health, public health, access to care, care models, cost and value,
comparative effectiveness, governance, management, accountability, workforce, and the future. Discussions of opportunities and challenges for wireless health, integrated into the foregoing topics. Perspective on health care delivery in other countries.

R4 - Wireless Communications and Networking: Essentials of wireless communications and networking, including teletraffic engineering, radio propagation, digital and cellular communications, wireless wide-area network architecture, speech and channel coding, modulation schemes, antennas, security, networking and transport layers, and 4G systems. Hands-on learning of the anatomy of a cell phone, and a paired wireless health device and its gateway.

R5 - Biomedical Sensing Instrumentation: Study of principles, applications, and design of biomedical instruments with special emphasis on transducers. Understanding of basic sensors, amplifiers, and signal processing. Discussion of the origin of biopotential, and biopotential electrodes and amplifiers (including biotelemetry). Understanding of chemical sensors and clinical laboratory instrumentation, including microfluidics.

R6 - Life in a Hospital, Clinic and Care Center: Rotation through one or more health care provider facilities for a first-hand understanding of care delivery practice, coordination, and management issues. First-hand exposure to routine medical devices and instruments, and their related use. Familiarity with provider protocols, physician referral practices, electronic records and clinical decision support systems.

E1 - Principles of Health Care Management: Accounting, marketing, finance, law and management for the health care industry. Government policy and its impact on health care management. Knowledge and skills in research, critical thinking, problem solving and current technology for application and use in a health care setting. Teamwork, leadership skills and professional ethics through classroom activities.

E2 - Introduction to Medical Informatics: Current and emerging trends in health information systems. Database management, system interoperability, patient privacy, network security, electronic medical records, telehealth, regulatory issues, clinical decision support, mobile documentation devices and wireless communications in healthcare. Impact of wireless health technology and integration to existing health data management systems.

E3-Clinical Decision Support Systems: Design principles behind Clinical Decision Support Systems (CDSS), foundations of knowledge-based systems, pattern recognition systems, inference engines, machine learning, clinical vocabularies, legal and ethical issues. FDA requirements for approving patient-centered clinical decision support systems and CDSS applications in mobile health technology.
*Student develops a new product/service plan in E6, followed by a related business plan in E9.

E4 - Advance Biomedical Instrumentation: Analysis and design of biosensors in the context of biomedical measurements. Base sensors using electrochemical, optical, piezoelectric, and other principles. Binding equilibria, enzyme kinetics, and mass transport modalities. Adding the "bio" element to base sensors and mathematical aspects of data evaluation. Applications to clinical problems and biomedical research.

E5 - Mobile Persuasion and User Experience Engineering: Social, cognitive, behavioral, and contextual elements of healthcare technology and systems. User-centered design paradigm from a broad perspective, emphasizing how to employ user research techniques to discover needs and create product requirements. Practical utilization of user centered design method and assessment techniques for approaching a design problem.

E6 - New Health Product Development: Product development issues faced in medical devices in general and in wireless health in particular. Discussion of the various stages from idea generation through prototype and product development, to validation and clinical/market testing. Techniques and processes for managing different stages of product development process and associated tools. Critical evaluation and analysis of new products and product strategies in wireless health. (*)

E7-RF Engineering for Medical Devices: RF/Wireless connectivity domains for medical applications: NFC (Proximity-IEC 14443, RFID), BAN and PAN (6LowPAN, ANT, BT, ZigBee), LAN (802.11a/b/g/n-MIMO) and WAN. RF Propagation: Body Channel Communications, baseband and modulation (OFDM, CDMA, TDMA). RF Design for medical applications: circuit and RFIC, power management, thermal management, packaging. Antenna Engineering: radiation, materials, Implanted Antennas for Biomedical Applications. RF in medical imaging.

E8 - FDA Medical Device Regulations: Understanding the federal system, including separation of powers, the executive branch and its departments, the congress, the Federal Communication Commission, policy versus regulation versus legislative. Learning what is a medical device, including introduction to the Food and Drug Administration, the classification system, radiation emitting products, software, radio-frequency wireless technology in medical devices, converged medical devices, international aspects. Understanding regulation of health information technology and wireless health, including regulatory acts, reimbursement, privacy, security.

E9 - New Health Technology Ventures: Processes and techniques for generating and assessing ideas for viable business models in wireless health. Techniques and skills to distinguish between interesting and viable ideas. Possible business models and related challenges for converting a concept into a business. Intellectual property and capturing value through licensing. Case studies illustrating the gap between success and failure in creating and managing a new venture in wireless health. (*)
*Student develops a new product/service plan in E6, followed by a related business plan in E9.

## INTRODUCTION TO WIRELESS HEALTH <br> FALL 2012 <br> EBME/EECS 480A

COURSE DESCRIPTION: Study of convergence of wireless communications, microsystems, information technology, persuasive psychology, and health care. Discussion of health care delivery system, medical decision-making, persuasive psychology, and wireless health value chain and business models. Understanding of health information technology, processing of monitoring data, wireless communication, biomedical sensing techniques, and health monitoring technical approaches and solutions. ( 3 credit hours)

FACULTY: The faculty teaching in this program have appointments in a department of the university. Their appointments follow the normal processes and standards of internal review.

TEXTBOOKS: Wireless Health by Mehregany, ed. (planned for Fall 2012)

## ADDITIONAL MATERIAL:

The Creative Destruction of Medicine by Topol (Basic Books).
Mobile Persuasion: 20 Perspectives of the Future of Behavior Change, Fogg and Eckles, eds. (Stanford University)

COURSE OBJECTIVES: This course is designed to provide the students with the fundamental and practical knowledge necessary for an overall grasp of the field of wireless health.

CLASS TIME / LOCATION: Once a week (not Fridays), 6:00 to 8:30 PM, San Diego.

OFFICE HOUR / LOCATION: 4:00 to 6:00 PM, same day and location as lecture.

## COURSE GRADE:

Homework (66\%): 6 assignments, biweekly
Project (34\%): Identify and understand a health or wellness need of a medically underserved group and develop a wireless health solution in response.

## LECTURE SCHEDULE:

WK 1 Creative destruction of medicine
WK 2 Wireless health applications and devices
WK 3 Persuasion psychology
WK 4 User interface engineering
WK 5 Health care delivery and medical decision making
WK 6 Health information technology and clinical decision support systems
WK 7 Security and interoperability
WK 8 FDA medical device regulation
WK 9 Value chain and business models
WK 10 Wireless communications and networking
WK 11 Wireless sensor networks
WK 12 Biomedical microsystems
WK 13 Near-body health monitoring
WK 14 On-body health monitoring
WK 15 In-body health monitoring

## University Student Ethics Policy http://studentaffairs.case.edu/ai/policy.html Violations of the Student Ethics Policy will result in failure in the assignment in question or the course, or referral to the academic integrity board as per university policy.

All forms of academic dishonesty including cheating, plagiarism, misrepresentation, and obstruction are violations of academic integrity standards. Cheating includes copying from another's work, falsifying problem solutions or laboratory reports, or using unauthorized sources, notes or computer programs. Plagiarism includes the presentation, without proper attribution, of another's words or ideas from printed or electronic sources. It is also plagiarism to submit, without the instructor's consent, an assignment in one class previously submitted in another. Misrepresentation includes forgery of official academic documents, the presentation of altered or falsified documents or testimony to a university office or official, taking an exam for another student, or lying about personal circumstances to postpone tests or assignments. Obstruction occurs when a student engages in unreasonable conduct that interferes with another's ability to conduct scholarly activity. Destroying a student's computer file, stealing a student's notebook, and stealing a book on reserve in the library are examples of obstruction.

CaseWestern Reserve

EST 1826

## THE HUMAN BODY <br> FALL 2012 <br> EBME/EECS 480B

COURSE DESCRIPTION: Study of Structural organization of the body. Introduction to anatomy, physiology, and pathology, covering the various systems of the body. Comparison of elegant and efficient operation of the body and the related consequences of when things go wrong, presented in the context of each system of the body. Introduction to medical diagnosis and terminology in the course of covering the foregoing. (3 credit hours)

FACULTY: The faculty teaching in this program have appointments in a department of the university. Their appointments follow the normal processes and standards of internal review.

TEXTBOOK: The Human Body in Health and Disease by Thibodeau and Patton (Elsevier, 5th ed.)

Additional Material: An Introduction to Medical Terminology for Healthcare: A Self-Teaching Package by Hutton (Churchill Livingstone, 4th ed.)

COURSE OBJECTIVES: This course is designed to provide the students with a basic understanding of anatomy, physiology, and pathology, as well as an introduction to medical terminology.

CLASS TIME / LOCATION: Once a week (not Fridays), 6:00 to 8:30 PM, San Diego.

OFFICE HOUR / LOCATION: 4:00 to 6:00 PM, same day and location as lecture.

## COURSE GRADE:

Quizzes (77\%): 7 quizzes, biweekly
Project (23\%): Virtual dissection of the body

## LECTURE SCHEDULE:

| WK 1 | Ch 1/2: | Structure and function of the body/Chemistry of life |
| :---: | :---: | :---: |
| WK 2 | Ch 3: | Cells and tissues |
| WK 3 | Ch 4: | Organ systems of the body |
| WK 4 | Ch 5: | Mechanisms of disease |
| WK 5 | Ch 6/7: | Integumentary system and body Membranes/Skeletal system |
| WK 6 | Ch 8/9 | Muscular system/Nervous system |
| WK 7 | Ch 10/11: | Senses/Endocrine system |
| WK 8 | Ch 12: | Blood |
| WK 9 | Ch 13/14: | Heart and heart disease/Circulation of blood |
| WK 10 | Ch 15: | Lymphatic system and immunity |
| WK 11 | Ch 16/17: | Respiratory system/Digestive system |
| WK 12 | Ch 18/19: | Nutrition and metabolism/Urinary system |
| WK 13 | Ch 20/21: | Fluid and electrolyte balance/Acidbase balance |
| WK 14 | Ch 22/23: | Reproductive systems/Growth and development |
| WK 15 | Ch 24: | Genetics and genetic diseases |

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## BIOMEDICAL SENSING INSTRUMENTATION SPRING 2013 EBME/EECS 480C

COURSE DESCRIPTION: Study of principles, applications, and design of biomedical instruments with special emphasis on transducers and in the context of wireless health applications. Understanding of basic sensors, amplifiers, and signal processing. Discussion of the origin of biopotential, and biopotential electrodes and amplifiers (including biotelemetry). Understanding of chemical sensors and clinical laboratory instrumentation, including microfluidics. (3 credit hours)

FACULTY: The faculty teaching in this program have appointments in a department of the university. Their appointments follow the normal processes and standards of internal review.

TEXTBOOK: Medical Instrumentation (Application and Design) by Webster (Wiley, 4th ed.)

ADDITIONAL MATERIAL: Reference Articles and Recitations to teach underlying concepts in order to accommodate the diversity of student backgrounds.

PREREQUISITES: EECS/EBME 480A and 480B.

COURSE OBJECTIVES: This course is designed to provide the students with a basic understanding of biomedical instrumentation with emphasis on transducers and in the context of wireless health applications.

CLASS TIME / LOCATION: Once a week (not Fridays), 6:00 to 8:30 PM, San Diego.

OFFICE HOUR / LOCATION: 4:00 to 6:00 PM, same day and location as lecture.

## COURSE GRADE:

Homework (66\%): 6 assignments, ~biweekly
Project (34\%): Design, build and demonstrate a wireless health device/instrument that communicates with a smart phone for a specific health/wellness application. \$200 bill of materials budget (excluding the smart phone).

## LECTURE SCHEDULE:

WK 1 Ch 1: Basic concepts of medical instrumentation
WK 2 Ch 14: Electrical Safety ( 60 min ) Workshop: Fundamentals of Design
WK 3 Ch 2: Basic sensors and principles
WK 4 Ch 2: Basic sensors and principles
WK 5 Ch 3: Amplifiers and signal processing
WK 6 Ch 3: Amplifiers and signal processing
WK 7 Ch 4: The origin of biopotentials
WK 8 Ch 4: The origin of biopotentials
WK 9 Ch 5: Biopotential electrodes
WK 10 Ch 5: Biopotential electrodes
WK 11 Ch 6: Biopotential amplifiers
WK 12 Ch 6: Biopotential amplifiers
WK 12 Ch 10: Chemical biosensors (extra lecture)
WK 13 Ch 10: Chemical biosensors
WK 14 Ch 11: Clinical laboratory instrumentation
WK 15 Ch 11: Clinical laboratory instrumentation

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## THE HEALTH CARE DELIVERY ECOSYSTEM FALL 2012 EBME/EECS 480D

COURSE DESCRIPTION: Heath care delivery across the continuum of care in the United States, including health policy and reform, financing of care, comparative health systems, population health, public health, access to care, care models, cost and value, comparative effectiveness, governance, management, accountability, workforce, and the future. Discussions of opportunities and challenges for wireless health, integrated into the foregoing topics. Perspective on health care delivery in other countries. (3 credit hours)

FACULTY: The faculty teaching in this program have appointments in a department of the university. Their appointments follow the normal processes and standards of internal review.

TEXTBOOK: Health Care Delivery in the United States by Jonas and Kovner (Springer Publishing Company, 10th ed.)

ADDITIONAL MATERIAL: Reference Articles providing a perspective on health care delivery in other countries.

PREREQUISITES: None.

COURSE OBJECTIVES: This course is designed to provide the students with a basic understanding of health care delivery in the United States and the related opportunities and challenges for wireless health.

CLASS TIME / LOCATION: Once a week (not Fridays), 6:00 to 8:30 PM, San Diego.

OFFICE HOUR / LOCATION: 4:00 to 6:00 PM, same day and location as lecture.

## COURSE GRADE:

Quizzes (77\%): 7 quizzes, biweekly
Project (23\%): Bridge the gap between an available wireless health solution and the respective current delivery of care it is intended to displace/improve.

## LECTURE SCHEDULE:

| WK 1 | Ch 1: | The current U.S. health care system |
| :--- | :--- | :--- |
| WK 2 | Ch 2: | Health policy and health reform |
| WK 3 | Ch 3: | Health care financing |
| WK 4 | Ch 4: | Comparative health systems |
| WK 5 | Ch 5: | Population health |
| WK 6 | Ch 6: | Public health: policy, practice, and |
|  |  | perceptions |
| WK 7 | Ch 7: | Health and behavior |
| WK 8 | Ch 8: | Access to care |
| WK 9 | Ch 9: | Organization of medical care |
| WK 10 | Ch 10: | Integrative models and performance |
| WK 11 | Ch 11: | High quality health care |
| WK 12 | Ch 12: | Health care costs and value |
| WK 13 | Ch 13: | Comparative effectiveness |
| WK 14 | Ch 14: | Governance, management, and |
|  |  | Ch 15: |

## University Student Ethics Policy http://studentaffairs.case.edu/ai/policy.html Violations of the Student Ethics Policy will result in failure in the assignment in question or the course, or referral to the academic integrity board as per university policy.

All forms of academic dishonesty including cheating, plagiarism, misrepresentation, and obstruction are violations of academic integrity standards. Cheating includes copying from another's work, falsifying problem solutions or laboratory reports, or using unauthorized sources, notes or computer programs. Plagiarism includes the presentation, without proper attribution, of another's words or ideas from printed or electronic sources. It is also plagiarism to submit, without the instructor's consent, an assignment in one class previously submitted in another. Misrepresentation includes forgery of official academic documents, the presentation of altered or falsified documents or testimony to a university office or official, taking an exam for another student, or lying about personal circumstances to postpone tests or assignments. Obstruction occurs when a student engages in unreasonable conduct that interferes with another's ability to conduct scholarly activity. Destroying a student's computer file, stealing a student's notebook, and stealing a book on reserve in the library are examples of obstruction.

## WIRELESS COMMUNICATIONS AND <br> NETWORKING SPRING 2013 EBME/EECS 480E

COURSE DESCRIPTION: Essentials of wireless communications and networking, including teletraffic engineering, radio propagation, digital and cellular communications, wireless wide-area network architecture, speech and channel coding, modulation schemes, antennas, security, networking and transport layers, and 4 G systems. Hands-on learning of the anatomy of a cell phone, and a paired wireless health device and its gateway. (3 credit hours)

FACULTY: The faculty teaching in this program have appointments in a department of the university. Their appointments follow the normal processes and standards of internal review.

TEXTBOOK: Wireless Communications and Networking by Vijay Garg (Morgan Kaufmann)

ADDITIONAL MATERIAL: Reference Articles and Recitations to teach underlying concepts in order to accommodate the diversity of student backgrounds.

PREREQUISITES: None.

COURSE OBJECTIVES: This course is designed to provide the students with a basic understanding of wireless communications and networking.

CLASS TIME / LOCATION: Once a week (not Fridays), 6:00 to 8:30 PM, San Diego.

OFFICE HOUR / LOCATION: 4:00 to 6:00 PM, same day and location as lecture.

## COURSE GRADE:

Homework (77\%): 7 assignments, biweekly
Projects (23\%): Dissect (i) a cell phone, and (ii) a paired wireless health device and its gateway.

| LECTURE SCHEDULE: |  |  |
| :---: | :---: | :---: |
| WK 1 | Ch 1: | An overview of wireless systems |
| WK 2 | Ch 2: | Teletraffic engineering |
| WK 3 | Ch 3: | Radio propagation and propagation path-loss models |
| WK 4 | Ch 4: | An overview of digital communication and transmission |
| WK 5 | Ch 5: | Fundamentals of cellular communications |
| WK 6 | Ch 6: | Multiple access techniques |
| WK 7 | Ch 7: | Architecture of a wireless wide-area network |
| WK 8 | Ch 8: | Speech coding and channel coding |
| WK 9 | Ch 9: | Modulation schemes |
| WK 10 | Ch 10: | Antennas, diversity, and link analysis |
| WK 11 | Ch 11: | Spread spectrum and CDMA systems |
| WK 12 | Ch 12: | Mobility management in wireless networks |
| WK 13 | Ch 13: | Security in wireless systems |
| WK 14 | Ch 14: | Mobile networking and transport layer |
| WK 15 | Ch 23: | Fourth generation systems and new wireless technologies |

## University Student Ethics Policy

 http://studentaffairs.case.edu/ai/policy.htmI Violations of the Student Ethics Policy will result in failure in the assignment in question or the course, or referral to the academic integrity board as per university policy.All forms of academic dishonesty including cheating, plagiarism, misrepresentation, and obstruction are violations of academic integrity standards. Cheating includes copying from another's work, falsifying problem solutions or laboratory reports, or using unauthorized sources, notes or computer programs. Plagiarism includes the presentation, without proper attribution, of another's words or ideas from printed or electronic sources. It is also plagiarism to submit, without the instructor's consent, an assignment in one class previously submitted in another. Misrepresentation includes forgery of official academic documents, the presentation of altered or falsified documents or testimony to a university office or official, taking an exam for another student, or lying about personal circumstances to postpone tests or assignments. Obstruction occurs when a student engages in unreasonable conduct that interferes with another's ability to conduct scholarly activity. Destroying a student's computer file, stealing a student's notebook, and stealing a book on reserve in the library are examples of obstruction.

## LIFE IN A HOSPITAL, CLINIC OR CARE CENTER

SUMMER 2012, FALL 2012, SPRING 2013 EBME/EECS 480F

COURSE DESCRIPTION: Rotation through one or more health care provider facilities for a first-hand understanding of care delivery practice, coordination, and management issues. First-hand exposure to routine medical devices and instruments, and their related use. Familiarity with provider protocols, physician referral practices, electronic records, clinical decision support systems, acute and chronic care, and inpatient and ambulatory care. ( 3 credit hours)

FACULTY: The faculty overseeing this program have appointments in a department of the university. Their appointments follow the normal processes and standards of internal review.

TEXTBOOK: None.
ADDITIONAL MATERIAL: None.

PREREQUISITES: EECS/EBME 480A, 480B, 480D.

COURSE OBJECTIVES: This course is designed to provide the students with a first-hand understanding of health care delivery in a clinical setting.

TOTAL TIME IN CARE SETTING: 48 hours.
COMPLETION TIME: 6 to 12 weeks, flexible.
LOCATION: A hospital, clinic or care center approved by the faculty. Student may suggest site(s).

COURSE GRADE: Diary (100\%), detailing the experience and learning.

## University Student Ethics Policy http://studentaffairs.case.edu/ai/policy.html Violations of the Student Ethics Policy will result in failure in the assignment in question or the course, or referral to the academic integrity board as per university policy.

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## DEFINITION OF A CREDIT-HOUR

1. The assignment of credit-hours to a course occurs through a formal review process conducted at the appropriate levels of faculty governance.
2. For courses in lecture format, one credit-hour represents the subject content that can be delivered in one academic hour of contact time each week for the duration of one academic semester (typically fourteen weeks) along with a final examination. ror undergraduate courses, one credit-hour also includes associated work that can be completed by a typical student in 2-3 hours of effort outside the classroom. For graduate and professional courses taught in lecture format, 3-4 hours of outside work is expected for each academic hour of contact time.
3. For courses taught in other than lecture format (e.g., seminars, laboratories, independent study, clinical work, research, etc.), one credit-hour represents an amount of content and/or student effort that in aggregate is no less than that described in (2) above.

## Background

The new Program Integrity rules issued by the U.S. Department of Education require CWRU to establish a definition of "credit hour." The definition is to apply to all of our degree programs (undergraduate through graduate/professional).

Boyd Kuhmer (University Compliance Officer) and Colleen Treml (Office of General Counsel) reviewed the draft above, and indicated that this type of definition would be adequate for satisfying Program Integrity needs. However, the Faculty Senate needs to be consulted before CWRU could officially adopt any such definition. This item was referred to the FSCUE and its Curriculum Subcommittee for review and will also be reviewed by the Faculty Senate Committee on Graduate Studies.

## Early Entry Master's Degree Agreements with Non-U.S. Universities

CWRU is considering entering into Early Entry Master's Degree agreements (sometimes referred to as " $3+2$ programs") with non-U.S. universities. Under such an arrangement, undergraduate students would study for three years at their originating university and then matriculate at CWRU for a two-year period of study towards a CWRU master's degree. These students would receive a bachelor's degree from their original undergraduate institution upon completion of their work at CWRU.

Current regulations for admission to a CWRU graduate program require a student to have either completed a bachelor's degree, or be a participant in an established program that integrates a CWRU undergraduate degree with a CWRU graduate degree (e.g., the BS/MS program or the Integrated Graduate Study program). Participants in the proposed program would fall into neither category; instead, these students would be receiving early admission to a CWRU master's program.

However, it is likely that these students will take undergraduate courses at CWRU. Because of the intersection of the proposed Early Entry Master Degree agreements with undergraduate education, the FSCUE recommends the following position statement:

FSCUE Position on Early Entry Master's Degree Agreements
Students matriculating through an Early Entry Master's Degree agreement will not be admitted to the university through the normal undergraduate admissions process. Therefore, the admitting graduate program must be fully responsible for all administrative and educational matters for such students, without imposition on other schools or colleges in the university.

To be admitted under an Early Entry Master's agreement, an applicant should have completed 1) all general education requirements of the undergraduate degree granting university, and 2) at least $75 \%$ of courses and credit hours required by the undergraduate degree granting university for the applicant's undergraduate major and graduation. These requirements should be met before matriculation at CWRU and are consistent with the requirements for other existing programs that integrate undergraduate and graduate study at CWRU. In addition, during the application process the student, with the assistance of the admitting graduate department, must determine a term-by-term plan for the courses to be taken at CWRU to complete the undergraduate degree at the undergraduate degree granting institution. This portion of the application requires approval by 1) all departments offering courses that appear on the term-byterm plan, and 2) the undergraduate degree granting institution. The admitting CWRU program or department is responsible for determining that these entry requirements are met.

International students admitted to an Early Entry Master's Program should satisfy the requirements on the TOEFL or IELTS exam that are in place for undergraduates at the time of admission. Adherence to this standard will allow the students to have a better chance of performing well in classes conducted in English.

Approved March 27, 2012 by the Faculty Senate Graduate Studies Committee
Approved April 2, 2012 by the Faculty Senate Committee on Undergraduate Education

## ENFORCING A DEADLINE FOR DECLARING A MAJOR

Proposal

Students who enroll at Case Western Reserve University as first-year students are expected to declare a major before registering for classes for their fifth semester of enrollment. Transfer students are expected to declare a major before registering for their third semester at Case Western Reserve. Beyond that point, students who have not declared a major will have a registration hold placed on their accounts until they have done so. Those who will have earned fewer than 60 credit-hours (including transfer, AP, IB, and proficiency credit) by the end of their fourth semester for students who started as first-year students, or by the end of their second semester for transfer students, may request that their dean in Undergraduate Studies allow them to register for the next semester by lifting the registration hold. Students may later change their majors should their academic interests change.

## Background

We currently have a statement in the General Bulletin that students "are expected to declare a major no later than the end of the second year," but we have no enforcement mechanism. As a result, some students continue into their third and fourth years without having declared a major, and there is always a small group from whom Undergraduate Studies needs to collect a formal major declaration in order to certify their degrees for graduation. (Currently, 41 students who matriculated as first-year students in August 2009 have not declared a major, about 5\% of the number enrolled on the Fall 2011 census date.) In many cases, they are working purposefully in pursuit of a major, but without the benefit of an assigned advisor in the field or the academic requirements report in SIS that shows all degree requirements and which have been satisfied. In the interest of improving advising and ensuring that students are connected to their major fields, this proposal would require that students declare a major before undertaking the second half of their undergraduate work.

Approved by the FSCUE Subcommittee on Academic Standing, 2/28/2012
Reviewed and supported by the FSCUE Curriculum Subcommittee, 2/29/2012
Reviewed and approved by the FSCUE, 3/6/2012

## Proposal <br> Certificate Program in Clinical Research

## i. Approved graduate program(s) sponsoring the certificate program

The Clinical Research Certificate program will be sponsored by the existing Clinical Research Scholars Program and administered within the Center for Clinical Investigation. The Center currently manages the Master of Science degree in Clinical Research. The certificate program will be administered by the Center's Academic Program Director, the Center's Academic Development and Training's Executive Committee, and a program coordinator. The Executive Committee will function as a steering committee for the certificate program and will be responsible for oversight of all admissions, academic, and curricular issues that may arise. The Executive Committee consists of a chairperson - the Academic Program Director - and two additional faculty members of the Clinical Research Scholars Program. The Academic Program Director is appointed by the Dean of the School of Medicine, and the additional two members of the Executive Committee are selected by the Program Director and approved by the Dean. The Executive Committee oversees the Master of Science degree program in Clinical Research as well as development of the CCI's other academic and training activities. The Executive Committee will be responsible for approving individuals into the program, handling any student or faculty concerns as arise, and periodic reviewing of the curriculum to assure maintenance of academic standards. The current Academic Program Director and chairperson of the Executive Committee is James Spilsbury, Ph.D.

Administrative aspects of the program will be conducted by the Center's Education Administrator/Manager. This position is currently filled by Natalie Milone, MA.

## ii. Need and demand for the certificate program

In its "Roadmap for Medical Research," the National Institutes of Health have highlighted the urgent need to speed biomedical advances and discoveries made in the laboratory to the individual patient and population as a whole. As part of the "Roadmap," the NIH launched the Clinical and Translational Science Awards (CTSA) program to energize clinical translational research and training. Currently, the CTSA program consists of a consortium of 55 medical research institutions located throughout the nation. In 2007, Case Western Reserve University (CWRU), the MetroHealth Medical Center, and the Cleveland Clinic Foundation were awarded one of the CTSA grants (NCRR CTSA Award UL1-RR02498) and formed the Clinical and Translational Science Collaborative, which has as a major goal to accelerate clinical translational research and training in the greater Cleveland area.

The Center for Clinical Investigation is located at CWRU's School of Medicine and serves as the academic home of the Clinical and Translational Science Collaborative. The Center currently directs a number of activities to enhance the clinical translational workforce and infrastructure in greater Cleveland, including a master's program (ongoing) and doctoral program (in development) in clinical research.

The proposed Certificate program will be administered by the Center for Clinical Investigation and will provide foundation training in clinical research methods for clinical-translational scientists. The proposed Certificate program targets clinicians and other health-science professionals who desire further training in clinical research skills to enhance their abilities as clinician-scientists, but who lack adequate time or resources to obtain a formal degree in clinical research. Health-science students, basic-science researchers, and other health-science professionals who desire greater knowledge and skill in clinical research may also be interested.

Experience with CWRU's existing master's program in clinical research illustrates the need for a certificate program. Enrollment in the annual introductory course for the program (CRSP 401 Introduction to Clinical Research) consistently draws 40-80 people (Appendix 1, Table 1). Numerous residents and fellows from the University Hospitals Case Medical Center, the Cleveland Clinic Foundation, and MetroHealth Medical Center attend (Appendix 1, Table 2). After taking the course, several people have applied to the master's program, but others have cited cost or time commitment as reasons not to pursue the degree. The Certificate program will provide a more feasible alternative for residents, fellows, faculty, and other individuals who are interested in conducting clinical research or collaborating with other clinician-scientists who conduct clinical research.

Similar to CWRU, other CTSA awardees nationwide have experienced an expressed need for a certificate program, and 9 of them have developed certificate programs. For example, the certificate program at the University of Cincinnati, the closest existing certificate program in Ohio, started enrolling students in the summer of 2009. As of October 2010, 6 people completed the certificate and 20 were enrolled. Of note, the proposed CWRU Certificate program will not compete with the Cincinnati program because our program will draw from the local pool of students and trainees at the affiliated hospitals in Cleveland.

We anticipate approximately 8 individuals per year will enroll in the program during the initial $1-3$ years, with increasing participation in subsequent years.

## iii. Statement of educational objectives of the certificate program

The proposed Certificate program is designed to provide a firm grounding in the method and conduct of patient-oriented clinical research. After completion of the program, graduates will be better able to conduct clinical research, as well as collaborate with other clinician-scientists conducting clinical research. Based on the core competencies for the Master of Science degree in Clinical Research, we have developed a set of core competencies and educational objectives for the certificate program. Upon completion of the Certificate Program, individuals will be able to:

| Domain | Core Competency | Coursework <br> Supporting <br> Competency |
| :--- | :--- | :---: |
| Formulation <br> of Clinical <br> Research <br> Questions | Formulate important, well-defined clinical research question that are feasible to <br> address. | State succinct research questions that can be answered in specific ways, including <br> posing and testing clinical/translational research hypotheses. |


| Domain | Core Competency | Coursework Supporting Competency |
| :---: | :---: | :---: |
|  | Understand relevant stakeholders in clinical research endeavors: patient groups, practitioners, policymakers | CRSP 401 |
| Literature Critique | Critique and interpret results of published studies in a balanced and evidencebased fashion. | CRSP 402 |
|  | Assess major sources of bias and variations in previous studies. | CRSP 402 |
|  | Interpret previous literature/studies in a causal framework. | CRSP 402 |
|  | Place a study in the context of existing research along a translation continuum (laboratory to patient to population). | CRSP 402 |
| Study Design | Describe possible study designs for addressing a research question (i.e., cohort, clinical trials, case-control, cross-sectional, genetic epidemiology studies, focus group, etc.), explaining when each study design is appropriate and the strengths and weaknesses of each. | CRSP 401, 402 |
|  | Identify a target population for a research project. | CRSP 401 |
|  | Determine expertise and resources needed to implement all components of a research project. | CRSP 401 |
|  | Design and write a protocol for clinical/translational research study | CRSP 401 |
| Analytic <br> Methods | Analyze quantitative data, working with professional methodologists, as needed. | CRSP 431 |
|  | Use the paradigms and methods in statistical science, including various sub-fields of epidemiology. | CRSP 431, 402 |
|  | Demonstrate firm understanding of the fundamental concepts of statistical reasoning, mostly traditional (frequentist), but also Bayesian. | CRSP 431 |
|  | Frame scientific questions in statistical terms; relate/translate statistical results back to the scientific questions. | CRSP 431 |
|  | Match statistical approaches with different research designs. | CRSP 431 |
|  | Distinguish research questions that require inference methods from those that require estimation methods from those that require exploratory strategies, such as data mining and statistical learning methods. | CRSP 431 |
|  | Recognize potential sources of bias/confounding and apply appropriate analytic techniques to assess and reduce such problems. | CRSP 431, 402 |
|  | Describe the differences between confounding, effect modification, and mediation. | CRSP 431, 402 |
|  | Build and compare sound statistical models that reflect alternative hypothesized biomedical mechanisms. This includes knowing how different types of outcome data (continuous, binary, multinomial, count, time-to-event) require different statistical models. | CRSP 431 |
|  | Relate the mathematical assumptions inherent in a particular statistical method to what real effect their violations have on the actual analyses. | CRSP 431 |
|  | Explain how traditional methods (based on mathematical models) can be buttressed/replaced by modern computationally intensive methods (e.g. bootstrapping). | CRSP 431 |
|  | Present statistical information, including tables and graphics. | CRSP 431 |
|  | Demonstrate proficiency in at least one statistical software system. | CRSP 431 |
|  | Appreciate the issues associated with the unreliability and bias in measurements and how this can affect data analysis and interpretation. | CRSP 431, 402 |
| Research Ethics | Understand fundamental ethical, legal, and regulatory issues in clinical research. Includes various topics: Belmont Report, informed consent; IRBs, risk-benefit assessment; recruitment, compensation and coercion; commercialization; conflicts of interest; data safety monitoring. | CRSP 401, CRSP 603, CREC certification |

## iv. Curriculum for the certificate program.

A total of 4 courses totaling 11 credit hours are required for successful completion of the program. These courses are currently being offered as part of the Master of Science Program in Clinical Research. No new courses are needed. In addition, individuals must successfully complete the Continuing Research Education Credit (CREC) curriculum to complete the certificate program. Descriptions of the courses and CREC requirement follow:

CRSP 401 (3 credit hours) - Introduction to Clinical Research
This course is designed to familiarize students with the language and concepts of clinical investigation and statistical computing, as well as provide opportunities for problemsolving and practical application of the information derived from the lectures. The material is organized along the internal logic of the research process, beginning with mechanisms of choosing a research question and moving into the information needed to design the protocol, implement it, analyze the findings, and draw and disseminate the conclusion(s).

CRSP 402 ( 3 credit hours) - Study Design and Epidemiologic Methods
This course covers the methods used in the conduct of epidemiologic and health services research. The course begins with how to quantify disease frequency and compare it across populations, often as a way to generate hypotheses about what factors may cause a given condition. The course introduces methodologic issues that need to be considered in the design and conduct of epidemiologic studies, including classification of disease and exposure status, types and consequences of misclassification, effect modification and related concepts. Additional sessions focus on the control of confounding and on the three main types of study designs: randomized trials, cohort studies and case-control studies. Topics include: Measures of disease frequency, measures of effect, classification and misclassification, cross-sectional studies, case-control studies, cohort studies, randomized controlled trials, confounding, bias, and effect modification.

## CRSP 431 (3 credit hours) - Statistical Methods I

This course covers the application of statistical techniques in the biomedical sciences. Content includes basic probability theory, random variables, distribution functions, point and interval estimation, regression, and correlation. The course involves the use of packaged statistical programs (e.g., R).

CRSP 603 (2 credit hours) - Research Ethics and Regulation: Emerging Issues and Ongoing Challenges
This course introduces students to the ethical, policy, and legal issues raised by research involving human subjects. Topics include (among others): regulation and monitoring of research, research in the developing world; research with special populations; stem cell and genetic research; commercialization and conflicts of interest; informed consent; study recruitment; riskbenefit assessment; the use of deception and placebos.

The required courses will be offered every year. CRSP 401 is offered Monday through Friday, 3 hours daily for over a 3-week period in July to accommodate clinician schedules. CRSP 402 and

431 are offered in the Fall semester. CRSP 603 has most recently been offered in the Fall semester, but may move to the Spring semester. Because CRSP 401 is the recommended preparation for CRSP 402, the anticipated order of courses would be: CRSP 401 (summer), with the other CRSP courses taken in subsequent Fall semester(s). However, there is no requirement that the coursework be taken in a specified order or period of time.

## Certificate Curriculum for Medical Students

Counterpart courses for CRSP 401, 402, and 431 are currently available to medical students attending either the University Program or the Cleveland Clinic Lerner College of Medicine (CCLCM):

## CMED 401 ( 3 credit hours) - Introduction to Clinical Research

This course is designed to provide an overview of skills necessary to plan and conduct clinical research. The goals of the 15 -week course are to learn the basic skills necessary to develop and describe a clinical research project and apply these skills by working with a research mentor to develop a project proposal, which can be submitted for funding. Special emphasis is placed on study design and statistical considerations, ethical and legal considerations of clinical research, and specific methodologies such as cost-benefit studies, analyses of large data sets, outcomes research, qualitative methods in clinical research, and development of the necessary components of a written research proposal. Students and faculty devote the last session of the course to conducting a mock-NIH review of their proposals.

## CMED 403 ( 3 credit hours) - Introduction to Clinical Epidemiology

This course introduces basic concepts of epidemiology, with specific focus on application of these concepts in the clinical research arena. Topics include: measures of disease frequency and the strength of their relationships with possible causative factors; primary observational research designs; clinical trials; interpretation of diagnostic and screening tests, and designs for assessing whether disease screening benefits patients; threats to research validity, including selection and measurement biases and confounding; and ethical and regulatory issues in the conduct of human research.

## CMED 402 (3 credit hours) - Statistical Science for Medical Research

This course introduces core concepts and methods of statistical inference for interpreting and precisely communicating information from health science data, with emphasis on clinical research. A comprehensive perspective on statistical modeling unifies several important methods in order to encourage recognition of the breadth and power of modern biostatistics and its role in the health sciences.

CMED 401 is offered in the Spring semester, and CMED 402 and 403 are taught in the Summer.
There is currently no counterpart course for CRSP 603 at the CCLCM; students in the CCLCM will be required to take CRSP 603.

## Continuing Research Education Credit (CREC) Certification

CREC is CWRU's program to provide documented training in the protection of human participants in research that is conducted at University Hospitals Case Medical Center, the

MetroHealth System, and CWRU. Researchers from the Louis Stokes Cleveland Department of Veterans Affairs Medical Center and the Cleveland Clinic may also participate. CREC subscribes to the training program that was developed and is currently offered online by the Collaborative Institutional Training Initiative (CITI), an organization founded in 2000 to develop web-based training in human subjects research protections. As of May 2010, the CITI Program has been utilized by over 1130 participating institutions and facilities from around the world. Individuals who complete the CITI Basic Course in The Protection of Human Research Subjects are certified for 3 years to conduct human subjects research, with continuing certification possible through completion of other Office of Research Administration and CITI educational activities. The Basic Course consists of 18 modules and covers the following topics: History and ethical principles; Basic Institutional Review Board (IRB) regulations and review Process; Informed consent; Social and behavioral research for biomedical researchers, Recordsbased research; Genetic research in human populations; Research with protected populations vulnerable subjects; Group harms: FDA-regulated research, HIPAA and Human Subjects Research; Workers as research subjects; Conflicts of interest in research involving human subjects. The basic course takes approximately 3 hours to complete.

To obtain the Certificate in Clinical Research, individuals must be CREC-certified. CREC certification is administered through CWRU's Office of Research Administration and equivalent offices at the Cleveland Clinic, University Hospitals, and MetroHealth Center. Individuals who receive CREC certification are provided a certificate to this effect, and their current CRECcertification status is monitored by the institutions' offices of research administration.

## v. Justification for the number of credit hours for the certificate program.

The Clinical Research Certificate program is a 11 credit hour program. Students who successfully complete the required coursework will receive a Certificate in Clinical Research issued by the Center for Clinical Investigation. Based on consideration of the critical competency-knowledge areas described above, the required 11-credit hour coursework for the Certificate program was identified: Introduction to Clinical Research; Study Design and Epidemiologic Methods; Statistical Methods 1, and Research Ethics and Regulation. Required CREC certification takes approximately 3 hours to complete. Credit hour requirements and the breadth of curricula of several existing certificate programs in clinical research were also considered (Appendix 2). The examined programs range from 6 to 24 required credit hours and cover similar information.

## vi. Entrance, performance, and exit standards for the certificate program.

Entrance Standards: Entrance to the Certificate program will be administered by the Center for Clinical Investigation. Individuals who want to participate in the program will complete an application form that includes a brief personal statement describing the reason(s) for seeking clinical research training and a recent CV or resume.

We expect that most applicants to the certificate program will have already obtained or are enrolled in a program to obtain an advanced clinical (e.g., MD, MSN, DMD) or academic (MS, PhD ) degree. However, we also anticipate that research assistants, study recruiters, or other
members of research teams working at CTSC institutions, who already have a baccalaureate degree or higher, will be interested in the certificate program. Thus, to include all these individuals, we will require that applicants must have already attained a baccalaureate degree to be admitted to the certificate program. Per CWRU School of Graduate Studies requirements, individuals who are not already graduate-degree-seeking students at CWRU must submit to the School of Graduate Studies a completed non-degree application form. Individuals who are not faculty, staff, or employees of CWRU must also submit a transcript or copy of their diploma, documenting completion of a baccalaureate degree. Per School of Graduate Studies requirements, non-degree-seeking individuals will not need to provide their Test of English as a Foreign Language (TOEFL).

Individuals will be accepted into the program based on the Executive Committee's review of the personal statement and any supporting documentation required by the School of Graduate Studies. Majority vote of acceptance by the Committee members will be necessary for admittance. Once accepted into the Certificate program, participants will register for the courses through the Student Information System.

The program will have rolling admissions, and students will be able to start taking courses in the summer, fall, or spring semester. The coursework for the Certificate will be listed on the official CWRU transcript. However, the Certificate in Clinical Research will be issued by the Center for Clinical Investigation, not the University. Although course credits will appear on the official CWRU transcript and be transferable to fulfill requirements for advanced degrees, the certificate itself will not appear on the official CWRU transcript.

Length of Program: Once accepted into the program, individuals will have 3 calendar years to complete the requirements.

Performance Standards: A grade of B or higher in each graded course will be required for successful completion of the Certificate program. Enrollees will be responsible for keeping track of the courses they take. To oversee students' progress in the program, enrollees will be required to submit a one-page Program Progress Checklist to the Education Manager at the end of each semester indicating the course(s) completed that semester. The Education Manager will notify the Executive Committee if any students are not making an adequate progress towards the Certificate. The Committee will make recommendations for remediation or any further action to assist students in successfully completing the program.

Exit Standards: Students who complete all required coursework will submit a checklist to the Center for Clinical Investigation notifying the Center for Clinical Investigation's Education Administrator/Manager that all coursework is completed. Students will also submit a copy of their CREC certification. This administrator will verify with the registrar's office that all requirements have been met. After this verification, the Academic Program Director will approve the awarding of the certificate in writing, and the Administrator/Manager will issue a certificate to the enrollee, documenting completion of the program.

## vii. Faculty expertise contributing to the certificate program.

Faculty responsible for the Certificate program will be drawn from the CWRU School of Medicine's Department of Epidemiology and Biostatistics, the Department of Medicine, the Center for Clinical Investigation, the MetroHealth Medical Center, and the Cleveland Clinic Lerner College of Medicine. Faculty members currently responsible for the required coursework are:

## CRSP 401 - Introduction to Clinical Research

## Lecturer \& Coordinator

Doug Einstadter, MD, MPH
Professor, Department of Medicine, CWRU School of Medicine; Member, Center for Health Care Research and Policy; Staff Physician, Department of Medicine, MetroHealth Medical Center. Research interests include: use of large databases in health services research; application of geographic information systems to health services research; use of informatics to improve quality of care.

## Lecturers

David Aron, MD, MS
Professor, Department of Medicine, CWRU School of Medicine; Associate Chief of Staff for Education, Louis Stokes Cleveland VA Medical Center; Director, VA National Quality
Scholar Fellowship Program in Ohio; Director, Center for Quality Improvement Research, VA Medical Center.

Shari Bolen, MD, MPH
Assistant Professor, Department of Medicine, CWRU School of Medicine; Physician, Division of Internal Medicine, MetroHealth Medical Center. Dr. Bolen conducts health services research in diabetes and obesity, with an emphasis on ways to improve care. Research interests include: comparative effectiveness, systematic reviews/meta-analyses.

Randall Cebul, MD
Professor, Department of Medicine, CWRU School of Medicine; Director, Center for Health Care Research and Policy, MetroHealth Medical Center; Director, Better Health Greater Cleveland. Research interests involve: epidemiologic methods; information technology and the decision sciences to examine and improve health care delivery, emphasizing preventive services and the care and outcomes for persons with chronic illnesses.

Philip Cola, MA
Vice-President, Research and Technology, IRB Administrative Office Head, University Hospitals Case Medical Center. Areas of expertise include: ethical conduct of research, research regulations.

David Kaelber, MD, PhD, MPH
Assistant Professor, Departments of Medicine and Pediatrics, CWRU School of Medicine; Chief Medical Informatics Officer, Division of Internal Medicine and Pediatrics, MetroHealth Medical Center. Research interests include: medical informatics, medical education, chronic diseases (hypertension and obesity) in children and adolescents.

Steven A. Lewis, MS, MBA
Research Biostatistician, MetroHealth Medical Center. Research interests consist of: categorical data analysis, generalized linear models, multivariate methods, sample size determination, and data visualization.

Thomas Love, PhD
Associate Professor, Department of Medicine, CWRU School of Medicine; Director, Biostatistics and Evaluation Unit, Center for Health Care Research and Policy, MetroHealth Medical Center. Research interests include: biostatistics, observational studies and propensity methods, risk adjustment, health information technology, education.

Joe Sudano, PhD
Assistant Professor, Department of Medicine, CWRU School of Medicine; Senior Researcher, Center For Health Care Research and Policy, MetroHealth Medical Center; Associate Director of Education, Center for Reducing Health Disparities, MetroHealth Medical Center. Research interests include: health care disparities; social determinants of health; measurement equivalence, validity, and item-response theory in cross-cultural health status measurement; health outcomes research.

Tracy J. Wilson-Holden
Director, Research Integrity and Education, Office of Research Compliance, CWRU. Area of expertise: ethical conduct of research, especially management of research data.

Mark Votruba, PhD
Associate Professor, Department of Economics, Weatherhead School of Management;
Director, Health Economics Research Unit, Center For Health Care Research and Policy, MetroHealth Medical Center. Research Interests include health economics (allocation of medical resources, incentives for care, insurance markets) and public economics (social program participation, social interactions effects).

## CRSP 402 - Study Design and Epidemiologic Methods

Doug Einstadter, MD, MPH
Professor, Department of Medicine, CWRU School of Medicine; Member, Center for Health Care Research and Policy; Staff Physician, Department of Medicine, MetroHealth Medical Center. Research interests include: use of large databases in health services research; application of geographic information systems to health services research; use of informatics to improve quality of care.

## CRSP 431 - Statistical Methods I

Ralph O'Brien, PhD
Professor, Department of Epidemiology \& Biostatistics, CWRU School of Medicine. Areas of expertise include: statistical science, especially sample-size analysis and robust tests for assessing variability differences.

## CRSP 603 - Research Ethics and Regulation

Nicole Deming, JD, MA
Assistant Professor, Department of Bioethics, CWRU School of Medicine; Center for Biomedical Ethics at MetroHealth Medical Center. Research interests include: informed consent process, patient/physician communication, professionalism, research regulations, and living organ transplants.

## Faculty Expertise for Counterpart Medical School Courses

CMED 401 - Introduction to Clinical Research

## Course Director

Matthew Karafa, PhD
Assistant Professor, CCLCM; Quantitative Health Sciences Project Staff, Cleveland Clinic Foundation.

## Lecturers

Carolyn Apperson-Hansen, Mstat
Director, Research Concierge, Clinical and Translational Science Collaborative, CWRU. Ms. Apperson-Hansen provides support in all phases of clinical and translational sciences in the regulatory and technology areas as well as assists inexperienced investigators to understand research study needs and navigate multi-disciplinary research processes. She has extensive experience in statistical analyses and database management.

Alex Fu, PhD
Assistant Professor, CCLCM; Associate Staff, Quantitative Health Sciences, Cleveland Clinic Foundation. Dr. Fu's research interests include: pharmacoeconomics, utility assessment, health policy evaluation, propensity score method, and econometrics, particularly in the areas of diabetes and mental illness.

Gretchen Hallerberg, Medical Library Director, Cleveland Clinic Foundation
Michael Kattan, MBA, PhD
Professor, Department of Medicine, CCLCM; Chairman, Department of Quantitative Health Sciences, Cleveland Clinic Foundation.

Amy Moore, Scientific Publications, Cleveland Clinic Foundation
Nancy Obuchowski, PhD
Professor, CCLCM; Vice Chair, Quantitative Health Sciences, Cleveland Clinic Foundation.
Research interests include: design and analysis of studies of screening and diagnostic tests; extension of Receiver Operating Characteristic (ROC) analysis to nominal, ordinal, or continuous outcomes; testing the equivalence of diagnostic tests.

Ralph O'Brien, PhD

Professor, Department of Epidemiology \& Biostatistics, CWRU School of Medicine. Areas of expertise include: statistical science, especially sample-size analysis and robust tests for assessing variability differences.

Carmen Paradis, MD
Clinical Assistant Professor, CCLCM; Center for Ethics, Humanities and Spiritual Care, Cleveland Clinic Foundation; Member, Institutional Review Board, Cleveland Clinic Foundation; Research Subject Advocate, Clinical and Translational Science Collaborative Research Unit, CWRU. Research interests include: research ethics, informed consent, and ethics education.

Shannon Morrison, MS
Statistical Programmer, Quantitative Health Sciences, Cleveland Clinic Foundation.
CMED 402 - Statistical Science for Medical Research
Amy Nowacki, PhD
Assistant Professor, CCLCM; Assistant Staff, Department of Quantitative Health Sciences, Cleveland Clinic Foundation. Research interests include: clinical trial design and randomization schemes, prediction, validation, and statistical education.

## CMED 403 - Introduction to Clinical Epidemiology

## Course Directors

Peter Imrey, PhD
Professor, Department of Medicine, CCLCM; Staff, Department of Quantitative Health Sciences, Cleveland Clinic Foundation. Research interests include: analysis of multivariate categorical data; linear models; sample survey methods; quantitative epidemiology.

Daniel Sessler, MD
Professor, Department of Anesthesiology, CCLCM; Chair, Department of Outcomes Research, Cleveland Clinic Foundation. Dr. Sessler coordinates more than a hundred studies, including large, multi-center outcome trials.

## viii. New resources, courses, etc., if any, necessary to support certificate program.

Managerial and administrative tasks necessary for the proposed Certificate program will be added to the Center for Clinical Investigation's Executive Committee and Education Administrator/Manager's responsibilities, respectively. The extra effort to implement the program is minimal. The CRSP Master's degree program generates adequate financial resources to conduct the courses, and the current CRSP courses will be able to handle additional students that are projected. No other input is required to support the program.

## Appendix 1

Table 1: Annual Enrollment in CRSP 401 "Introduction to Clinical Research"

| Year | Number |
| :--- | :--- |
| 2002 | 44 |
| 2003 | 26 |
| 2004 | 47 |
| 2005 | 40 |
| 2006 | 55 |
| 2007 | 62 |
| 2008 | 45 |
| 2009 | 49 |
| 2010 | 78 |
| Total: | 446 |

Table 2: Annual Enrollment in CRSP 401 by Academic Level*

|  |  | ACADEMIC LEVEL |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Total | Faculty | Fellows | Medical <br> Residents | Other |
| 2006 | 55 | 8 | 31 | 15 | 1 |
| 2007 | 62 | 5 | 33 | 23 | 1 |
| 2008 | 45 | 5 | 22 | 15 | 3 |
| 2009 | 49 | 3 | 32 | 12 | 2 |
| 2010 | 78 | 4 | 62 | 11 | 1 |
| Total | 289 | 25 | 180 | 76 | 8 |

*Enrollment breakdowns by academic level unavailable for years previous to 2006

## Appendix 2

## Example Certificate Programs

| Institution | Required Coursework Topics | Credit Hr Requirements |
| :---: | :---: | :---: |
| Columbia (pre-doc) | - Principles of Epidemiology <br> - Biomedical Informatics <br> - Research Ethics <br> - Clinical Trials <br> - Biostatistics <br> - Practicum | 6 semester hrs |
| University of Pennsylvania | - Research methods/study design <br> - Biostatistics <br> - Database management <br> - Ethical Scientific-Research conduct | 9 semester hrs |
| University of Tennessee | - Fundamentals of Clinical Investigation <br> - Biostatistics <br> - Principles of Epidemiology <br> - Ethical and Legal Issues in Clinical Research | 12 semester hrs |
| UC Berkeley | - Introduction to Clinical Research: Clinical Trial Phases and Design <br> - Clinical Trial Planning: Protocol Development, Data Management, and Clinical Site Activities <br> - Clinical Trial Implementation: Site Initiation, Subject Recruitment, Monitoring, and Safety Reporting <br> - Clinical Trial: Data Analysis, Regulatory Audits, Vendor Selection, and Project Management | 12 semester hrs |
| University of Pittsburgh | - Clinical research methods <br> - Biostatistics <br> - Computer Methods <br> - Measurement <br> - Ethics and Regulation of Research | 15 credit hrs |
| University of Oregon (bench focus) | - Clinical Research design <br> - Biostatistics <br> - Proposal development <br> - Evidence Based medicine <br> - Molecular Biology | 24 semester hrs |

Office of the Dean
10900 Euclid Avenue
To: Pamela B. Davis, M.D., Ph.D.
Dean, School of Medicine
Cleveland, Ohio 44106-4915
Visitors and Deliveries
Biomedical Research Bldg - Rm 113
Phone 216.368.2825
From: Jill Barnholtz-Sloan, Ph.D.
Chair, Faculty Council 2011-2012


Fax 216.368.2820
http:/ / casemed.edu
Date: January 24, 2012

Re: Proposal for the Certificate Program in Clinical Research

At its meeting on January 23, 2012, Faculty Council reviewed a proposed new Certificate Program in Clinical Research.

The proposed Certificate program will be administered by the Center for Clinical Investigation and will provide foundation training in clinical research methods for clinical-translational scientists. The proposed Certificate program targets clinicians and other health-science professionals who desire further training in clinical research skills to enhance their abilities as clinician-scientists, but who lack adequate time or resources to obtain a formal degree in clinical research. Health-science students, basic-science researchers, and other health-science professionals who desire greater knowledge and skill in clinical research may also be interested.

The proposed Certificate program is designed to provide a firm grounding in the method and conduct of patient-oriented clinical research. After completion of the program, graduates will be better able to conduct clinical research, as well as collaborate with other clinician-scientists conducting clinical research.

Accordingly, the Faculty Council concluded the Certificate Program in Clinical Research would be beneficial for the initial estimated 8 students that would be interested in enrolling per year (with increasing participation antipated in subsequent years). By a vote of 33 in favor; 0 against, 0 abstain, the proposal was recommended for approval.

Please review the proposal and add any additional comments; then forward to the University Faculty Senate for its review and recommendation.

Thank you.

## SCHOOL OF MEDICINE

Case Western Reserve
UNIVERSITY

To: Gary Chottiner, Ph.D.
Chair, Faculty Senate
From: Pamela B. Davis, M.D., Ph.D. Dean, School of Medicine

Date: January 25, 2012
Re: Proposal for the Certificate Program in Clinical Research
Enclosed please find a proposal for a new Certificate Program in Clinical Research. The program has been recommended for approval by the Faculty Council of the School of Medicine, acting under our Bylaws for the Faculty of Medicine, and has my enthusiastic endorsement. *
I understand that the process for further review includes oversight by the Faculty Senate's Graduate Studies Committee and the Faculty Senate as a whole. Please let me know if I can provide any additional information.

Thank you for your consideration.
C: (all w/o enclosures): Jill Barnholtz-Sloan, Ph.D.
James Spilsbury, Ph.D.

# Summary of Suggested Changes to CWRU COI Policy 

## Key:

a. Changed to comply with 2011 DHHS Final Rule
b. Changed for factual accuracy/consistency/procedural relevancy
c. Changed for clarity/Requested by Faculty Senate Bylaws Subcommittee

## Summary of changes

Note: Minor spelling, grammatical, typographical and formatting changes are not captured as part of this summary, but have been corrected for readability, clarity and consistency.

1. New Section: Availability of Policy, page 1.

Added section on posting and availability of the policy, per DHHS Final Rule (a.).
2. Section: The University Conflict of Interests Committee, page 1 and throughout document.

The name of the review committee had been changed from, "Conflict of Interest Committee" to, "Conflict of Interests Committee." (c.)
3. Section I. A. Who is covered by this policy?, page 2.

Added language for applicability, per DHHS Final Rule (a.).
Modified language at request of Faculty Senate Bylaws Subcommittee (c.).
4. Section I. C. Disclosure, page 2 and throughout the document.
"Disclose(d/s)/disclosure(s)/disclosing" replaces "report(ed/s)/reporting" to reflect utilization of terminology in DHHS Final Rule. Definition adapted from DHHS Final Rule appears as added language to this section (a.).
5. Section I. C.1. Who must disclose?, page 2.

For consistency, moved from section I.C.5. When is disclosure to be made? (b.).
6. Section I.C.2. What activities must be disclosed?, page 3.
"Definition(s)" replaces "Glossary" to reflect utilization of terminology in DHHS Final Rule (a.).
7. Section I.C.3. What activities are permitted without disclosure?, page 3.

## Summary of Suggested Changes to CWRU COI Policy

Language modified for clarity. (c.)
8. Section I.C. 3. What activities are permitted without disclosure?, pages 3-4.

Language regarding travel was moved or modified. Language regarding income was added. Changes per exclusions in DHHS Final Rule (a.).
9. Section I.C. 4 How is disclosure to be made and to whom?, page 4.

Description of the disclosure process modified and adjusted for factual accuracy/consistency with current procedure (b.).
10. Section I.C. 5 When is disclosure to be made?, page 4.

Description of the disclosure timeline modified and adjusted for factual accuracy/consistency with current procedure (b.).

Disclosure period changed from 10 days to 30 days per DHHS Final Rule (a.).
Information regarding confirmation/updating of previous disclosure added for clarity (c.).
11. Section I.D. 1 What is the process?, pages 4-5.

Addition of detail and description of the disclosure process in this section was modified and adjusted for factual accuracy/consistency with current procedure (b.).

Modified language at request of Faculty Senate Bylaws Subcommittee (c.).

Note: Many examples of activities that could represent individual conflicts of interest were deleted from this revision. The revised examples have been reviewed and modified for accuracy and consistency. These examples are also incorporated into a companion document (i.e. definitions/frequently asked questions) (b.).
12. Section I.D. 2 Management, page 5.

Added language for applicability, per DHHS Final Rule (a.).
13. Section I.D. 2 Management, pages 5-6.

Language deleted, modified and adjusted for factual accuracy/consistency with current procedure (b.).

Modified from original document to cover DHHS Final Rule definition of research (a.).

## Page 2 of 4

## Summary of Suggested Changes to CWRU COI Policy

Confirmation of acceptance by Investigator will be documented, as per DHHS Final Rule (a.).
Details of process and procedure will be addressed in a companion document (e.g. Standard Operating Procedures) (c.).
14. Section I. E. Training, G. Subrecipient Reporting, and H. Record Keeping, page 6.

Added language for applicability, per DHHS Final Rule (a.).
Training description includes modified language at request of Faculty Senate Bylaws Subcommittee (c.).
15. Section I. F. Reporting, page 6.

Section moved from Section I.C.5. (b.) and edited per DHHS Final Rule (a.).
16. Section I. I. Appeals, pages 6-7.

Language modified and adjusted for clarity (c.).
Modified language at request of Faculty Senate Bylaws Subcommittee (c.).
Language modified and adjusted for factual accuracy/consistency with current procedure Modified language capturing changes now appears in Section III. Confidentiality (b.).

Language deleted reflects procedural change in appeals process so that deans and senior officials are consulted as needed. The Confidentiality section outlines the plan for sharing information with deans and senior officials.

## 17. Section II. D.1. Review, pages 8-9.

Language modified and adjusted for clarity (c.).
Language deleted, modified and adjusted for factual accuracy/consistency with current procedure (b.).

Note: Many examples of activities that could represent institutional conflicts of interest were deleted from this revision. The revised examples have been reviewed and modified for accuracy and consistency. These examples are also incorporated into a companion document (i.e. definitions/frequently asked questions) (b.).
18. Section II. D.2. Management, pages 9-10.

Page 3 of 4

## Summary of Suggested Changes to CWRU COI Policy

Language modified and adjusted for clarity (c.).
Language deleted, modified and adjusted for factual accuracy/consistency with current procedure (b.). These changes included no longer requiring input from University officials to finalize the plan. This process is done on an as-need basis.
19. Section II. E. Appeals, page 10.

Language modified and adjusted for factual accuracy/consistency with current procedure (b.).
Modified language at request of Faculty Senate Bylaws Subcommittee (c.).
20. III. Confidentiality, page 10.

Added language for applicability, per DHHS Final Rule (a.).
Language added for factual accuracy/consistency with current procedure (b.).
21. IV. Sanctions, pages 10-11.

Added language for applicability, per DHHS Final Rule (a.).
Language added for factual accuracy/consistency with current procedure (b.).

## 22. Definitions, pages 12-13.

Additional language and new definitions added to cover DHHS Final Rule definitions. Previous definition of "Investigator" was modified to cover DHHS Final Rule definitions (a.).

Language modified and adjusted for clarity (c.).
Language added for factual accuracy/consistency with current procedure (b.).
Modified definition of financial interests language at request of Faculty Senate Bylaws Subcommittee (c.).

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## CASE WESTERN RESERVE UNIVERSITY

## POLICIES ON INDIVIDUAL CONFLICTS OF INTEREST AND INSTITUTIONAL CONFLICTS OF INTEREST

## Introduction

This document establishes policies on individual conflicts of interest and institutional conflicts of interest.

Research, scholarship, and other creative endeavors have enormous potential to benefit humankind, and the University strongly supports efforts to bring discoveries to society. The purpose of these policies is to protect the University, its faculty, non-faculty employees, students, and trainees, and human subjects and animals in research and to comply with applicable federal laws. The policies seek to accomplish this by striking the proper balance between, on the one hand, the goal of preserving academic freedom and encouraging outside scholarly and entrepreneurial activities by members of the University that enhance the prestige and reputation of the University and benefit society, and, on the other hand, the need to preserve the integrity of the University and its members and to fulfill the University's responsibilities to the public. In striking this balance, the interests of the public, the integrity of the University and its individual members, and the safety of research subjects always must be given priority.

These policies apply generally to the members of the Board of Trustees, all University officers, senior officials, faculty (whether or not engaged in research or other scholarly or creative endeavors), volunteer faculty at the School of Medicine engaged in research, post-doctoral fellows and scholars, non-faculty employees, students, and trainees. The specific policies cover specific types of individuals.

## Availability of the Policy (a)

The University will maintain an up-to-date, written, enforced policy on financial conflicts of interest that complies with applicable regulations, including any federal financial conflict of interest regulations. The policy will be posted and available via a publicly accessible web site. The University will inform covered individuals of the policy and of their responsibilities regarding disclosure. The University will inform covered individuals in the event that the policy is revised and updated (a).

## The University Conflict of Interests

 CommitteeThe members of the Conflict of Interests Committee, including the leadership of the committee, are appointed by the President and include faculty, non-faculty employees, and administrators. The Conflict of Interests Committee includes at least one member of the public who serves as a regular member of the Conflict of Interests Committee, and a second member of the public who serves as an alternate member of the Conflict of Interests Committee. The members of the public must not have any affiliation with the University (including as alumni, faculty, clinical faculty, adjunct faculty, or emeritus faculty) or with its affiliated hospitals (other than as patients). To the maximum extent possible, the members of the public must be independent of the line of authority for institutional oversight of research. A majority of the members of the Conflict of Interests Committee are members of the faculty as defined in Article I, sections (A) and (B) of the University Faculty Handbook, and one of these faculty members is appointed by the Executive Committee of the Faculty Senate. Membership also includes representatives from

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hospitals affiliated with the University. These members only participate in the resolution of conflicts of interest involving research.

Members of the Conflict of Interests Committee must recuse themselves from consideration of their own conflicts of interest, or institutional conflicts of interest that relate to their own conflicts of interest.

## I. Individual Conflict of Interest Policy

## A. Who is covered by this policy?

The conflict of interest policy applies to the members of the Board of Trustees; all University officers; senior ("cabinet-level") officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, Inclusion and Equal Opportunity, and any other individual that the President designates); all University faculty except special faculty members who are not paid by the University, unless engaged in research; emeritus faculty who have an ongoing relationship with the University who are engaged in research; post-doctoral fellows; all employees; students; and trainees. "University faculty" are those individuals defined as in the Faculty Handbook.

This policy applies to these individuals regardless of where they conduct activities covered by the policy.

## B. What is an individual conflict of interest?

An individual conflict of interest exists when an individual covered by this policy has a financial interest that might adversely affect or appear to a reasonable person to adversely affect the individual's judgment in carrying out University responsibilities, or that might adversely affect or appear to a reasonable person to adversely affect the University's responsibility to the public, the
safety of research subjects, or the integrity of research.

## C. Disclosure

"Disclosure" - "Disclosure" means an individual's disclosure of financial interests and/or significant financial interests to the University (a).

The disclosure requirements under this policy are broad, in order to provide adequate protection for individuals covered by the policy, the University and affiliated institutions, and the public interest. It is important to recognize that a disclosure requirement does not indicate that the activity in question is in any way objectionable; indeed, disclosure is required in connection with many activities in which members of the University are expected to engage, such as funded research, or that are otherwise praiseworthy, such as the receipt of honorary awards.

## 1. Who must disclose?

The following individuals must disclose under this policy: the members of the Board of Trustees; all University officers and senior officials, as defined in section I(A) of this policy; all University faculty (whether or not engaged in research), except special faculty members who are not paid by the University, unless engaged in research; emeritus faculty/key personnel and other individuals who contribute to the scientific development or execution of a research project in a substantive way, and any other employees at the request of their supervisor. Individuals who have no disclosable interests must still submit an annual disclosure form to be in compliance with this policy (b).

Students and post-doctoral fellows and scholars do not have to disclose unless they contribute to the scientific development or execution of a research project in a substantive way.

## 2. What activities must be disclosed?

Individuals covered by this policy must disclose any financial interest (defined in the attached

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Definitions (a) and the acceptance of any gifts, favors, or anything of value, by the individual or the individual's spouse, dependent children, domestic partner, or any other dependent person who is a member of the same household as the individual, that directly or indirectly might influence or appear to a reasonable person to influence the individual's responsibilities as a member of the University.

Individuals covered by this policy who engage in research must disclose any financial interest, no matter how small, that the individual or the individual’s spouse, dependent children, domestic partner, or any other dependent person living in the same household as the individual, has in any entity that sponsors or supports the research or that holds a financial interest in the subject of the research, and also must disclose the acceptance of any gift, favor, or anything of value from an entity that sponsors the research or that holds a financial interest in the subject of the research.

Individuals covered by this policy also must disclose whenever a previously disclosed conflict of interest is eliminated.

Whenever an individual covered by this policy has any doubt about whether or not an activity must be disclosed, the individual should disclose the activity.

## 3. What activities are permitted without disclosure?

Certain activities may be engaged in without disclosure. Typically, these are activities not covered in section 2 above, and in which academics routinely engage and in which an individual's financial interests are not expected to influence his/her (c.) judgment. Disclosure is also not required for salary, royalties or other remuneration paid by the University to the individual if the individual is currently employed or otherwise appointed by the University (a).

Examples of activities in which individuals may engage without disclosure include:

Receiving royalties for published scholarly work and other writings.

Accepting reasonable meals and other customary business amenities (such as pads and pens) that are provided as part of a seminar, course, meeting, or other businessrelated gathering.

Honoraria for reviewing scholarly manuscripts for publication by academic journals or presses.

Travel that is reimbursed or sponsored by a federal, state or local government agency, an institution of higher education as defined at 20 U.S.C. 1001(a), an academic teaching hospital, a medical center, or a research institute that is affiliated with an institution of higher education.

Income from investment vehicles, such as mutual funds and retirement accounts, as long as the Investigator does not directly control the investment decisions made in these vehicles.

Income from seminars, lectures, or teaching engagements sponsored by a Federal, state, or local government agency, an Institution of higher education as defined at 20 U.S.C. 1001(a), an academic teaching hospital, a medical center, or a research institute that is affiliated with an institution of higher education.

Income from service on advisory committees or review panels for a Federal, state, or local government agency, an Institution of higher education as defined at 20 U.S.C. 1001(a), an academic teaching hospital, a medical center, or a research institute that is affiliated with an institution of higher education (a).

Royalties or other payments extending from intellectual property rights assigned to University, and agreements to share in royalties or other payments related to such rights (a).

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Grants and contracts administered through the University.

Whenever an individual has any doubt about whether or not an activity must be disclosed, the individual should disclose the activity.

## 4. How is disclosure to be made and to whom?

All members of the University community are covered by the COI policy, but disclosure requirements vary according to the individual's role(s) with the University.

Generally, annual disclosure is made to the Conflict of Interests Committee using the form provided by the University.

Members of the Board of Trustees, the President, and other senior officials disclose using a separate process administered by the Office of the General Counsel.

Those staff members and other individuals who are not required to complete an annual disclosure form must disclose to their supervisors any financial interest that relates to their University responsibilities. Supervisors who determine that an individual may have a conflict of interest must report this to the Conflict of Interests Committee for further review.

Compliance with this policy does not relieve the individual from complying with pertinent regulatory committee disclosure requirements. (b).

## 5. When is disclosure to be made?

Disclosure must occur at least annually in accordance with the time period prescribed by the University. For those who are listed on sponsored projects, disclosure must occur no later than the time of funding application (b). Individuals also must disclose, as appropriate, within 30 (a.) days of discovering or acquiring a disclosable interest or within 30 days after a financial (b.) interest has been eliminated (a).

Individuals who have been recruited to the University must disclose any conflicts of interest sufficiently in advance of their start date that the conflicts can be reviewed and resolved by the Conflict of Interests Committee prior to their start date.

Disclosure or confirmation/updating of previously disclosed information also (c) is required at the time a research proposal is submitted on the electronic University Review Form, and when a research proposal is submitted to relevant review bodies as required (c).

## D. Review

## 1. What is the process?

The Conflict of Interests Committee Chair and Staff, or the Office of General Counsel Staff (b). conducts an initial review of all the disclosures they receive (b).

If necessary, they obtain additional information from the disclosing individual and from other individuals who possess relevant information. The Conflict of Interests Committee Chair and Staff, or the (b.) Office of the General Counsel Staff, as appropriate, notifies the Conflict of Interests Committee or the Board of Trustees, respectively, of those activities that must be further reviewed (b).

The Conflict of Interests Committee reviews all disclosures to determine whether the disclosed financial interests are significant, whether they are related to the individual's University responsibilities, and whether a management plan is required. Reviews of individual disclosures conducted solely by the Audit Committee of the Board of Trustees are conducted according to the rules of the Board of Trustees (b).

In conducting review, the Conflict of Interests Committee considers a number of factors, including the value of the individual's financial interest; and in the case of research, whether the individual is uniquely qualified by virtue of expertise and experience to conduct the research project, whether the research could not be

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conducted as safely or effectively without that individual, and the degree of risk imposed on research subjects.

Following are some examples of conflicts of interest. In specific cases, individuals may be able to engage in some of these activities with a suitable management plan:
a. While serving as an investigator on a research project that relates to a company's products, an individual is receiving consulting fees from and has equity in the company.
b. An individual manages the renovation of departmental offices and participates in the selection of an architectural firm in which his spouse is a partner.
c. A faculty member with a financial interest in an outside company serves as the direct academic supervisor of a university student employed by that company.
d. While serving on the board of directors of a business, an individual acts as an investigator on research sponsored by the business.
e. An individual makes referrals to a business in which he or she has a financial interest. Section Modified (b).

## 2. Management

The Conflict of Interests Committee may decide to approve an activity subject to a suitable management plan.

To "manage" means taking action to address a financial conflict of interest, which can include reducing or eliminating the financial conflicts of interest, and, in the case of conflicts of interest involving research, to ensure, to the extent possible, that the design, conduct, and reporting of research will be free from bias (a).

The management plan may include but is not limited to:
a. Requiring the individual to recuse him/herself from particular business decisions.
b. Requiring the individual to inform certain persons or institutions about the conflict of interest and the management plan (such as the relevant review bodies, as required (b); state and federal officials; research sponsors; co-investigators; colleagues; junior colleagues; students; trainees; members and prospective members of the individual's research laboratory; journals to which manuscripts about the research are submitted; and media, lay, and professional audiences with whom the research or other activity is discussed orally or in writing).
c. Requiring the individual to refrain from participating in certain activities or aspects of activities relating to the research project (such as requiring IRB members with conflicts of interest in connection with research protocols to recuse themselves from deliberations on those protocols, or, where compelling circumstances exist to allow certain research stages or activities to proceed despite a conflict of interest, restricting the individual's roles to those stages and activities, including establishing a point in time for stopping participation and strategies to keep the individual's involvement at a minimum).
d. Requiring the activity to be approved by additional individuals or entities (such as deans, department chairs, or program chairs).
e. Requiring others to review academic decisions in which the individual participates.
f. Requiring independent involvement in the research (such as in recruiting and selecting subjects, participating in or designing the consent process, providing clinical treatment

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to subjects apart from the research intervention or procedures, monitoring data, reviewing study design, collecting data, and determining authorship status or order).
g. Requiring the individual to reduce, modify, or eliminate a financial interest (including divesting ownership, restricting the sale or exercise of stock and stock options, and deferring or waiving royalties or milestone payments).
h. Requiring the individual to vacate a position.
i. Prohibiting the individual from disclosing confidential institutional information or channeling discoveries to an outside entity.
j. Prohibiting the research from taking place at the University.
k. Requiring continued oversight of the activity by the Conflict of Interests Committee.

Management plans are developed according to the nature of the significant financial interest and of the related University activity, --e.g., whether there is an institutional as well as an individual conflict of interest, and whether the investigator is conducting research.

## Section Deleted and Modified (b.)

The COI Committee may involve the individual in the conflict of interest assessment. If the COI Committee determines a management plan is required, then upon finalizing the management plan, the COI Committee will provide the management plan to the individual and inform the individual that the management plan is in effect (a).

## E. Training

The University will comply with federal financial conflict of interest regulations regarding providing training on requirements, including disclosure requirements for
investigators applying for and engaged in PHS-
funded research (a).

## F. Reporting (a)

The University will comply with federal regulations regarding reporting of financial conflicts of interest, e.g., by submitting financial conflict of interest reports to the awarding component, as required.

The University will comply with federal financial conflict of interest regulations regarding making publicly available information on identified financial conflicts of interest held by investigators and key personnel on PHSsponsored research (b).

## G. Subrecipient Reporting

The University will comply with federal conflict of interest regulations regarding subrecipient agreements, including for PHS-funded awards (a).

## H. Record Keeping

The University with federal regulations regarding maintaining records relating to all disclosures of financial interests and the University's review of, and response to, such disclosures (a).

## I. Appeals

If an individual covered by this policy who is a faculty member is dissatisfied with a determination of the Conflict of Interests Committee, the individual may submit a written appeal to the Provost within 10 days of receipt of the decision. The appeal shall be decided by the Provost or his/her designee. The Provost or his/her designee will make best efforts to render a (c) decision in writing within 30 days of receipt of the appeal (b). If the Provost upholds the Conflict of Interests Committee's determination, the Provost's decision is final. If the Provost modifies or overrules the Conflict of Interests Committee's determination, the Conflict of Interests Committee may appeal to the President.

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A non-faculty employee who is dissatisfied with a determination of the Conflict of Interests Committee may submit a written appeal to the Senior Vice President for Administration within 10 days of receipt of the decision. The appeal shall be decided by the Senior Vice President or his/her designee. The Senior Vice President or his/her designee will make best efforts to render a decision in writing within 30 days of receipt of the appeal (c). If the Senior Vice President for Administration upholds the Conflict of Interests Committee's determination, the decision of the Senior Vice President for Administration is final. If the Senior Vice President for Administration modifies or overrules the Conflict of Interests Committee's determination, the Conflict of Interests Committee may appeal to the President.

If the individual is the President, the President may submit a written appeal to the Audit Committee of the Board of Trustees within 10 days of receipt of the decision.

If the individual is a member of the Board of Trustees, the appeal is conducted in accordance with the policies and procedures of the Board of Trustees.

## Section Deleted and Modified (b)

## II. Institutional Conflict of Interest Policy

## A. Who is covered by this policy?

This institutional conflict of interest policy applies to the members of the Board of Trustees, the President, the Provost, all senior ("cabinetlevel") officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates), vice presidents, vice provosts, deputy provosts, deans, associate and vice deans, department chairs, academic division chiefs, directors of department-level centers, IRB chairs, the chair of the Conflict of Interests

Committee, the chair of the Institutional Biosafety Committee, and directors of institutes and centers with department-level status.

## B. What is an institutional conflict of interest?

An institutional conflict of interest arises when the financial interests of the University, or of a University official acting within his/her authority on behalf of the University, may influence or appear to influence the research, education, clinical care, business transactions, or other activities of the University. In the case of research, the concern is that the financial interests of the University, or of a University official acting within his/her authority on behalf of the University, might affect-or reasonably appear to affect-University processes for the conduct, review, or oversight of the research.

An institutional conflict of interest also might arise when an individual covered by this policy receives a financial or other benefit from the use or disclosure of non-public information pertaining to the University.

Institutional conflicts of interest may arise when outside activities are inconsistent with an individual's responsibilities to the University. Outside activities include leadership participation in professional, community, or charitable activities, self-employment, participation in business partnerships, employment or consulting arrangements with entities other than the University, either compensated or uncompensated, and service on any private-sector board, including for-profit, non-profit, advisory, or honorary. These activities are inconsistent with an individual's responsibilities to the University when they adversely influence or appear to adversely influence the research, education, clinical care, business transactions, or other activities of the University.

An individual conflict of interest may raise an institutional conflict of interest issue and vice versa.

## C. Disclosure

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There is no separate individual disclosure under the institutional conflict of interest policy. The information disclosed on individual conflict of interest forms is used in carrying out the institutional conflict of interest policy.

In addition, the Conflict of Interests Committee periodically must receive the following information:

1. From the Senior Vice President of Finance and Chief Financial Officer, a list of the entities in which the University has any financial interest.
2. From the Board of Trustees, a list of the entities in which members of the Board of Trustees and senior officials of the University, their spouses, dependent children, domestic partners, or any other dependent person living in the same household as the individual, have any financial interest. The list of entities provided by the Audit Committee of the Board of Trustees to the Conflict of Interests Committee does not contain the identities of the individuals who have the financial interest in those entities.
3. From the Office of Development, a list of major gifts to the University.
4. From the Office of Research and Technology Management, a list of the University's equity holdings and technology licenses.

## D. Review

## 1. What is the process (c)?

Reviews of individual disclosures conducted solely by the Audit Committee of the Board of Trustees are conducted according to the rules of the Board of Trustees.

In the case of all other individual disclosures, the Conflict of Interests Committee Chair and Staff, or the Office of General Counsel Staff (b)
conducts an initial review. If necessary, they obtain additional information from the disclosing individual and from other individuals who possess relevant information.

The Conflict of Interests Committee Chair and Staff utilize information provided by the offices and departments of the institution (e.g., from the Senior Vice President of Finance and Chief Financial Officer, the Board of Trustees, the Office of Development, and the Office of Research and Technology Management) to review potential institutional conflicts of interest received (c).

The Conflict of Interests Chair and Staff then identify those activities that must be further reviewed by the Conflict of Interests Committee. The Conflict of Interests Committee will review the disclosures it receives to determine whether the disclosed financial interests of institutional officials or of the University are significant and whether they are related to University activities, and, if so, whether management is required to manage the institutional conflict of interest.

In conducting review, the Conflict of Interests Committee considers a number of factors, including value of the institutional financial interest and the nature of related University activities (b).

Following are some examples of institutional conflicts of interest. In specific cases, individuals may be able to engage in some of these activities with a suitable management plan:
a. A vice president of the University signs off on a procurement decision involving major purchases from or supply contracts with a commercial entity of which he is a director.
b. A department chairman serves as an investigator in a research project sponsored by a company from which she receives consulting income.
c. As patent-holder, the University stands to gain royalties from intellectual

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property licensed to a company, and that intellectual property is being investigated under a research contract with the University.
d. A company that has made a major gift to the University has requested special consideration in the bidding process as a vendor. The individual considering the bid is a consultant for the company.
e. A start-up company partially owned by the University has requested a discounted rate in utilizing several University core facilities. The facilities are overseen by an individual who is the chief scientific officer of the company. Section Modified (b).

## 2. Management

The Conflict of Interests Committee may decide to approve an activity subject to a suitable management plan. The management plan may include:
a. Isolating the individual from involvement in research or decision-making regarding research.
b. Requiring the individual to reduce, modify, defer, waive, or eliminate the financial interest that is the source of the conflict, such as equity holdings, royalty income, stock options and milestone payments.
c. If recusal would preclude the individual from fulfilling the responsibilities of a University position, requiring the individual to eliminate the holdings or vacate the position.
d. Requiring the individual to recuse him- or herself from institutional decisions regarding the outside entity that is source of conflict.
e. Requiring the individual to make periodic written disclosure of the conflict to all administrators, faculty, non-faculty
employees, and students under individual's supervision, to Research Administration (c), IRBs, IACUCs, subjects, state and federal officials, research sponsors, co-investigators, colleagues, junior colleagues, students, trainees, members and prospective members of the individual's research laboratory, journals to which manuscripts about the research are submitted, and media, lay, and professional audiences with whom the research or other activity is discussed orally or in writing.
f. Appointing independent individuals or committees to oversee high-level administrative decisions (e.g., financial decisions, space allocations, appointments and promotions) in which the individual participates.
g. Prohibiting the research from taking place at the University.
h. Eliminating, reducing, or modifying the University's financial stake in an outside entity or research project.
i. Enhancing or creating firewalls or other conflict-management systems to separate financial and research decision-making.
j. Requiring independent involvement in the research (such as in recruiting and selecting subjects, participating in or designing the consent process, providing clinical treatment to subjects apart from the research intervention or procedures, monitoring data, reviewing study design, collecting data, and determining authorship status or order).
k. Preventing the individual from serving as the principal investigator, co-principal investigator, or investigator on the research project.
l. Protecting students, trainees, junior colleagues and/or non-faculty employees by preventing or limiting their participation in the research project, preventing or limiting them from working in newly-formed

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companies involving conflicted superiors, informing them of the potential conflict, giving them access to senior faculty and non-faculty employees to review questions or concerns, having academic decisions outside the research activity made or reviewed by independent individuals, and recusing the conflicted individual from the chain of authority over salary, promotion, and space allocation decisions.
m . Prohibiting the individual from participating in institutional negotiations with the outside entity except as the University directs.
n. Prohibiting the individual from serving on the board of directors of the outside entity, or as an officer, member of the scientific advisory board, member of a speakers' bureau, or consultant.
o. Prohibiting the individual from disclosing confidential University information.
p. Prohibiting the individual from channeling discoveries to the outside entity.
q. Prohibiting the individual from accepting research grants from companies founded by the individual.

## Selection Deleted (b)

## E. Appeals

When an individual has an individual conflict of interest and an institutional conflict of interest also exists (b.), the appeal process under the individual conflict of interest policy applies.

In the event that an individual who is charged with executing an institutional conflict of interest management plan but who (b) does not have an individual conflict of interest is dissatisfied with a determination of the Conflict of Committee, the individual may submit a written appeal to the President within 10 days of receipt of the decision. If the individual is the President, the President may submit a written appeal to the Audit Committee of the Board of Trustees within

10 days of receipt of the decision. If the individual is a member of the Audit Committee, the Audit Committee's deliberations and decision is conducted in accordance with the policies and procedures of the Board of Trustees.

If the President or the Audit Committee upholds the Conflict of Interests Committee's determination, the decision is final. If the President modifies or overrules the Conflict of Interests Committee's determination, the Conflict of Interests Committee may appeal to the Audit Committee.

## III. Confidentiality

All information contained in disclosures or obtained in the course of reviewing a potential conflict of interest or institutional conflict of interest, is kept confidential, subject to the University's reporting obligations to government agencies, research sponsors and the public (a). The information is available to the Conflict of Interests Committee and its staff, and to the individuals charged with the responsibility for review in the particular case. In addition, the disclosures received by the Conflict of Interests Committee are shared with the deans and department chairs or supervisors of the disclosing individuals at the request of the individual's dean, chair or supervisor, or at the request of the Conflict of Interests Committee. The individual's department chair, dean or supervisor will be provided with the management plan. There may be instances when other institutional officials must receive this information (e.g., members or staff of regulatory committees with oversight of activities covered in the management plan) (b).

## IV. Sanctions

Failure to comply with these policies includes failing to submit a required disclosure, providing false information, omitting required information, failing to maintain confidentiality, failure to carry out duties prescribed by these policies, and refusal or failure to comply with a management plan adopted under these policies.

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A failure to comply with these policies may, in the case of research, result in a decision by the Vice President for Research to suspend the research project or refuse to approve a new research project for the individual who fails to comply.

A failure to comply also is subject to the full range of University disciplinary procedures, including:
a. Formal admonition.
b. A letter in the individual's file indicating that the individual's good standing as a member of the University has been called into question.
c. Ineligibility of the individual to apply for grants, IRB approval, or supervision of graduate or professional students or trainees.
d. Additional sanctions per research funding agency may apply (such as requiring investigator financial conflict of interest training), up to and including sponsor suspension of funding per applicable federal regulations. The University will comply with federal financial conflict of interest requirements regarding non-compliance retrospective review and corrective action (a).
e. Non-renewal of appointment.
f. Termination of employment.

The person responsible for ensuring that an individual has complied with the University's Conflict of Interest Policy (b) must report a
failure to comply to the Conflict of Interests Committee Chair or Staff (b), who refers it to the Conflict of Interests Committee, except that a failure to comply by the President or a member of the Board of Trustees must be reported to the Audit Committee of the Board of Trustees.

The Conflict of Interests Committee determines if the matter can be handled by requiring the individual to comply with a corrective action
plan devised by the Conflict of Interests Committee. If so, the Conflict of Interests Committee devises the plan and advises the individual of its requirements. If the Conflict of Interests Committee determines that the matter cannot be handled by requiring the individual to comply with a corrective action plan, or the individual refuses to comply, the Conflict of Committee refers the matter, along with its recommendations about how the matter should be handled, to the appropriate individual or body. In the case of faculty, the Conflict of Interests Committee refers the matter to the Provost. In the case of the Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates as a senior "cabinet-level" official, the Conflict of Committee refers the matter to the President.

If an individual other than a non-faculty employee is dissatisfied with a determination of the Conflict of Interests Committee to impose a corrective action plan or with administrative action by the Vice President for Research to suspend or refuse to approve a research project, the individual may submit a written appeal to the Provost within 10 days of receipt of the determination. A non-faculty employee who is dissatisfied with a determination of the Conflict of Interests Committee may submit a written appeal to the Senior Vice President for Administration within 10 days of receipt of the decision.

If the Provost upholds the Conflict of Interests Committee's determination, the Provost's decision is final. If the Provost modifies or overrules the Conflict of Interests Committee's determination, the Conflict of Interests Committee may appeal to the President.

If the Senior Vice President for Administration upholds the Conflict of Interests Committee's determination, the decision of the Senior Vice President for Administration is final. If the Senior Vice President for Administration

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modifies or overrules the Conflict of Interests Committee's determination, the Conflict of Interests Committee may appeal to the President.

Grievance proceedings are conducted in accordance with the procedures provided in the University Faculty Handbook and the Human Resources Policy Manual.

## V. Revisions to the Policies

Any revisions to these policies that are required by law or by government agency action will become part of these policies. Other revisions to these policies become effective upon being approved by the President, the Provost, and the Executive Committee of the Faculty Senate.

## Definitions

"Disclosure" - "Disclosure" means an individual's disclosure of financial interests and/or significant financial interests to the University (a).
"Faculty" - "Faculty," as defined in the Faculty Handbook, comprises tenured or tenure track faculty members, non-tenure track faculty members, and special faculty members. Special faculty members are: 1) those persons holding part-time academic appointments, and 2) persons holding full-time academic appointments, but who have specific, limited responsibilities for the duration of a specific project, or for a limited duration. Examples of special appointments are faculty members hired for one semester, who teach one course on a repeated basis, who engage in clinical supervision only without other responsibilities to the University, or who are engaged in a specific project conducted outside the University.
"Financial conflict of interest report" - In the sponsored research context, this refers to the University's financial conflict of interest report to the awarding component (a).
"Financial interest" - A "financial interest" means anything of monetary value, whether or not the value is readily ascertainable. Examples
of financial interests include the following (a): income; honoraria; consulting fees; advisory board fees; membership on a speaker's bureau; remuneration; gifts or other emoluments; "in kind" compensation; travel expenses and reimbursement (b), other than those paid for by the University or its hospital affiliates, or reasonable travel expenses paid for participation in scholarly and academic endeavors and/or those described in the exclusions in Section I.C.3.of this policy (c); equity such as stock, stock options or other ownership interests, including equity that individuals covered by this policy know they will inherit; royalties; nonuniversity grants; debts; loans; non-university contracts; licensing agreements; inventors’ shares board membership or other officer position with any entity outside of the University or its clinical affiliates, with advisory or fiduciary duties, even if uncompensated (c).
"Individual conflict of interest" - An outside interest that might adversely affect or appear to a reasonable person to adversely affect an individual's judgment in carrying out University responsibilities, or that might adversely affect or appear to a reasonable person to adversely affect the University's responsibility to the public, the safety of research subjects, or the integrity of research. For the purposes of research, a financial conflict interest means a significant financial interest that could directly and significantly affect the individual's University responsibilities, and in the case of research, that could directly and significantly affect the design, conduct, or reporting of research (b).
"Institutional conflict of interest" -- An institutional conflict of interest arises when the financial interests of the University, or a University official acting within his/her authority on behalf of the University, may influence or appear to influence the research, education, clinical care, business transactions, or other activities of the University; when an individual covered by this policy receives a financial or other benefit from the use or disclosure of nonpublic information pertaining to the University; and when outside activities are inconsistent with an individual's responsibilities to the University.

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"Institutional responsibilities" - "Institutional responsibilities" are defined as those professional responsibilities that are conducted on behalf of the University. Examples of institutional responsibilities include: activities such as research, research consultation, teaching, professional practice, institutional committee memberships, and service on panels such as Institutional Review Boards or Data and Safety Monitoring Boards (a).
"Investigator" - "Investigator" means the and any other person who is significantly involved in and responsible for the design, conduct or reporting of research, or proposal for such funding, including the person's spouse and dependent children and/or any other collaborators or consultants. The term also includes investigators working for subgrantees, contractors, subcontractors, and collaborators. See also the definitions provided in this policy for "Project Director/Principal Investigator" and "Senior/key personnel (a)."
"Manage" - "Manage" means taking action to address a financial conflict of interest, which can include reducing or eliminating the financial conflicts of interest, to ensure, to the extent possible, that the design, conduct, and reporting of research will be free from bias (a).
"Outside activities" - "Outside activities" include leadership participation in professional, community, or charitable activities, selfemployment, participation in business partnerships, employment or consulting arrangements with entities other than the University, either compensated or uncompensated, and service on any board, including for-profit, non-profit, advisory, or honorary.
"Project Director/Principal Investigator" - These terms refer to the project director or principal investigator of a research project. See also the definitions provided in this policy for "Investigator" and "Senior/key personnel (a)."
"Senior officials" - "Cabinet-level" officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates).
"Senior/key personnel" - These terms are used interchangeably to refer to the (a)
Director/Principal and any other senior or key personnel identified by the University on PHSfunded grant applications, progress reports, or any other reports to the PHS by the University. See also the definitions provided in this policy for "Investigator" and "Project Director/Principal Investigator (a)."
"Travel expense disclosure" - Disclosure of travel expenses and reimbursement is required for travel that is not reimbursed or sponsored by a federal, state, or local government agency, an institution of higher education as defined at 20 U.S.C. 1001(a), an academic teaching hospital, a medical center, or a research institute that is affiliated with an institution of higher education. Disclosure of the nature of the travel will be accomplished on the annual disclosure form (a).

## CASE WESTERN RESERVE UNIVERSITY

## POLICIES ON INDIVIDUAL CONFLICTS OF INTEREST AND INSTITUTIONAL CONFLICTS OF INTEREST

## Introduction

This document establishes policies on individual conflicts of interest and institutional conflicts of interest. $\qquad$
Research, scholarship, and other creative endeavors have enormous potential to benefit humankind, and the University strongly supports efforts to bring discoveries to society. The purpose of these policies is to protect the University, its faculty, non-faculty employees, students, and trainees, and human subjects and animals in research; and to comply with applicable federal laws. The policies seek to accomplish this by striking the proper balance between, on the one hand, the goal of preserving academic freedom and encouraging outside
| scholarly and entrepreneurial activities by members of the University that enhance the prestige and reputation of the University and benefit society, and, on the other hand, the need to preserve the integrity of the University and its members and to fulfill the University's
| responsibilities to the public. In striking this balance, the interests of the public, the integrity of the University and its individual members, and the safety of research subjects always must be given priority.

These policies apply generally to the members of the Board of Trustees, all University officers, senior officials, faculty (whether or not engaged
| in research or other scholarly or creative endeavors), volunteer faculty at the School of
| Medicine engaged in sponsored University research, post-doctoral fellows and scholars, non-faculty employees, students, and trainees. The specific policies cover specific types of individuals.

Availability of the Policy
The University will maintain an up-to-date, written, enforced policy on financial conflicts of
interest that complies with applicable regulations, including any federal financial conflict of interest regulations. The policy will be posted and available via a publicly accessible web site. The University will inform covered individuals of the policy and of their responsibilities regarding disclosure. The $\leftarrow$ University will inform covered individuals in the event that the policy is revised and updated.

The University Conflict of InterestInterests Committee

The members of the Conflict of InterestInterests Committee, including the leadership of the committee, are appointed by the President and include faculty, non-faculty employees, and administrators. The Conflict of InterestInterests Committee includes at least one member of the public who serves as a regular member of the Conflict of InterestInterests Committee, and a second member of the public who serves as an alternate member of the Conflict of InterestInterests Committee. The members of the public must not have any affiliation with the University (including as alumni, faculty, clinical faculty, adjunct faculty, or emeritus faculty) or with its affiliated hospitals (other than as patients). To the maximum extent possible, the members of the public must be independent of the line of authority for institutional oversight of research. A majority of the members of the Conflict of InterestInterests Committee are members of the faculty as defined in Article I, sections (A) and (B) of the University Faculty Handbook, and one of these faculty members is appointed by the Executive Committee of the Faculty Senate. Membership also includes representatives from hospitals affiliated with the University. These members only participate in the resolution of conflicts of interest involving research.

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The Conflict of Interests Committee is supported by the Conflict of Interests Committee Staff.

Members of the Conflict of ImterestInterests Committee must recuse themselves from consideration of their own conflicts of interest, or institutional conflicts of interest that relate to their own conflicts of interest.

## I. Individual Conflict of Interest Policy=

A. Who is covered by this policy?

The conflict of interest policy applies to the members of the Board of Trustees; all University officers; senior ("cabinet-level") officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice
| President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, Inclusion and Equal Opportunity, and any other individual that the President designates); all University faculty except volunteer faculty in the School of Medicine (mmless engaged in sponsored researeh) and except special faculty members who are not paid by the University, unless engaged in sponsoredUniversity research; emeritus faculty members who have an ongoing relationship with the University-تf, e.g.,. who are applying for or engaged in sponsoredUniversity research; postdoctoral fellows;; all employees; students; and trainees. "University faculty" members are those individuals defined as University facultysuch in the Faculty Handbook.

This policy applies to these individuals regardless of where they conduct activities covered by the policy.

## B. What is an individual conflict of interest?

An individual conflict of interest exists when an individual covered by this policy has a - financial interest that might adversely affect or appear to a reasonable person to adversely affect the individual's judgment in carrying out University responsibilities, or that might adversely affect or appear to a reasonable person to adversely affect the University's responsibility to the public, the safety of research subjects, or the integrity of research.
C. Reporting.Disclosure
"Disclosure" - "Disclosure" means an individual's disclosure of financial interests and/or significant financial interests to the University.

The reportingdisclosure requirements under this policy are broad, in order to provide adequate protection for individuals covered by the policy, the University and affiliated institutions, and the public interest. It is important to recognize that a reportingdisclosure requirement does not indicate that the activity in question is in any way objectionable; indeed, reportingdisclosure is required in connection with many activities in which members of the University are expected to engage, such as funded research, or that are otherwise praiseworthy, such as the receipt of honorary awards.

## 1. Who must reportdisclose?

The following individuals must reportdisclose under this policy: the members of the Board of Trustees; all University officers and senior officials, as defined in section $I(A)$ of this policy; all University faculty (whether or not engaged in research), except volunteer faculty in the School of Medicine (unless engaged in sponsored research) and except special faculty members who are not paid by the University, unless engaged in spensoredUniversity research; emeritus faculty; and senior members who have an ongoing relationship with the University, e.g. who are applying for or engaged in University research; and Senior/key personnel and other individuals who contribute to the scientific development or execution of a research project in a substantive way, and any other employees at the request of their supervisor. Individuals who have no disclosable interests must still submit an annual disclosure form to be in compliance with this policy.

Students and post-doctoral fellows and scholars do not have to repertdisclose unless they contribute to the scientific development or execution of a research project in a substantive way.

## 2. What activities must be reporteddisclosed?

Individuals covered by this policy must reportdisclose any financial interest (defined in the attached glossary Definitions) and the

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acceptance of any gifts, favors, or anything of value, by the individual or the individual's spouse, dependent children, domestic partner, or any other dependent person who is a member of the same household as the individual, that directly or indirectly might influence or appear to a reasonable person to influence the individual's responsibilities as a member of the University.

Individuals covered by this policy who engage in research must repertdisclose any financial interest, no matter how small, that the individual or the individual's spouse, dependent children, domestic partner, or any other dependent person living in the same household as the individual, has in any entity that sponsors or supports the research or that holds a financial interest in the subject of the research, and also must reportdisclose the acceptance of any gift, favor, or anything of value from an entity that sponsors the research or that holds a financial interest in the subject of the research.

Individuals covered by this policy also must repertdisclose whenever a previously reporteddisclosed conflict of interest is eliminated.

Whenever an individual covered by this policy has any doubt about whether or not an activity must be reporteddisclosed, the individual should repertdisclose the activity.

## 3. What activities are permitted without

 reportingdisclosure?Certain activities may be engaged in without repertingdisclosure. Typically, these are activities not covered in section 2 above, and in which academics routinely engage and in which an individual's financial interests are not expected to influence the individual's judgment. his/her judgment. Disclosure is also not required for salary, royalties or other remuneration paid by the University to the individual if the individual is currently employed or otherwise appointed by the University.

Examples of activities in which individuals may engage without reportingdisclosure include:

Receiving royalties for published scholarly work and other writings.

Accepting reasonable meals and other customary business amenities (such as pads
and pens) that are provided as part of a seminar, course, meeting, or other businessrelated gathering.

Income and travel expenses from service on advisory committees or as a reviewer for governmental and recognized inter-governmental or academic entities or professional societies.

> Honoraria for reviewing scholarly manuscripts for publication by academic journals or presses.

Travel that is reimbursed or sponsored by a federal, state or local government agency, an institution of higher education as defined at 20 U.S.C. 1001(a), an academic teaching hospital, a medical center, or a research institute that is affiliated with an institution of higher education.

Income from diversified investment vehicles, such as mutual funds:

Henoraria and travel suppert for scholarly
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control the investment decisions made in these vehicles.

Income from seminars, lectures, or teaching engagements sponsored by a Federal, state, or local government agency, an Institution of higher education as defined at 20 U.S.C. 1001(a), an academic teaching hospital, a medical center, or a research institute that is affiliated with an institution of higher education.

Income from service on advisory committees or review panels for a Federal, state, or local government agency, an Institution of higher education as defined at 20 U.S.C. 1001(a), an academic teaching hospital, a medical center, or a research institute that is affiliated with an institution of higher education.

Royalties or other payments extending from
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University, and agreements to share in royalties or other payments related to such rights.

Grants and contracts administered through the University.

Whenever an individual has any doubt about whether or not an activity must be reporteddisclosed, the individual should reportdisclose the activity.

## 4. How is reportingdisclosure to be made and to whom?

The University's reporting process is administered by the University's-All members of the University community are covered by the Conflict of Interest Office, except that reportingpolicy, but disclosure requirements vary according to the individual's role(s) with the University.

Generally, annual disclosure is made to the Conflict of Interests Committee using the form provided by membersthe University.

Members of the Board of Trustees, the President, the Provost, all-and other senior officials of the University, as well as the Chair of the Conflict of Interest Committee, is-disclose using a separate process administered by the Office of the General Counsel, and except that the General Gounsel reports to the President. Each year,, Those staff members and other individuals eovered by this policy must report in writing any activities listed above. Reports called for by the Gonflict of Interest Gommittee are submitted to that committee. Reports called for by the Office of General Counsel are submitted to that office. The reports received by the Conflict of Interest Committee are shared with the deans and department chairs of the reporting faculty.

Individuals covered by this policy who are not required to repert to the Conflict of Interest Committee (other than those described in the preceding paragraph who must report to the Office of General Counsel or the President) must report complete an annual disclosure form must disclose to their supervisors any financial interest that relates to their University responsibilitiesto their supervisors at their anmual review. Supervisors who determine that an individual may have a conflict of interest must report this to
the Conflict of Interest OfficeInterests Committee for further review.

Compliance with this policy does not relieve the individual from complying with IRB or IACUC reportingpertinent regulatory committee disclosure requirements.

## 5. When is reportingdisclosure to be made?

ReportingDisclosure must occur at least annually \& as instructedin accordance with the time period prescribed by the OfficeUniversity. For those who are listed on sponsored projects, disclosure must occur no later than the time of General Counsel or the Conflict of Interest Office.funding application. Individuals also must report the Conflict of Interest Office or the Office of General Counseldisclose, as appropriate, within 1030 days after they become aware of discovering or acquiring a reportabledisclosable interest or within 30 days after a conflict offinancial interest has been eliminated.-Individuals who have no repertable interests must still submit an anntual report to be in compliance with this policy.

Individuals who have been recruited to the University must reportdisclose any conflicts of interest sufficiently in advance of their start date that the conflicts can be reviewed and resolved by the Conflict of Interestinterests Committee prior to their start date.

ReportingDisclosure or confirmation/updating of previously disclosed information also is required at the time a research proposal is submitted on the electronic University Review Form, and when a research proposal is submitted to relevant review bodies (such as the CWRU IRB, Gancer IRB, CWRU IACUC, and affiliated IRBs).as required.

As per the Code of Federal Regulations (42 CFR part 50), the University will report a conflict of interest related to Public Health Service (PHS) funded research to the PHS awarding component. Whenever possible, this report will take place prior to the expenditure of grant funds. It always will take place within 60 days of identifying a new conflict of interest.

The report to the PHS Awarding component will 4 specify whether the University has managed, reduced or eliminated the financial conflict of interest. If the failure of an individual to comply

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with PHS regulations has biased the design, conduct, or reporting of PHS-funded research, the University must promptly notify the PHS Awarding component of the corrective action taken or to be taken. Note: The PHS Awarding Component will consider the situation and, as necessary, take appropriate action, or refer the matter to the University for further action which may include directions to the Institution on how to maintain appropriate objectivity in the funded project=
m-accordance with 42 CFR 50.604(e), the University will maintain records of all financial disclosures and all actions taken by the University with respect to each conflicting interest for at least three years, and in the case of PHS-funded research, from the date of submission of the final expenditures report or, where applicable, from other dates specified in 45 CFR 74.53(b) for different situations (e.g., transferred records, instances of litigation, etc.)

## D. Review and approval.

## 1. What is the review process?

The Conflict of Interests Committee Chair and Staff, or the Office of General Counsel Staff, as appropriate, conducts an initial review of all the reports it receives. The Conflict of Interest Office conducts an initial review of all reports it receives-disclosures they receive.

If necessary, they obtain additional information from the disclosing individual covered by the policy and from other individuals who possess relevant information. The Conflict of Interests Committee Chair and Staff, or the Office of the General Counsel or the Conflict of Interest Office, as appropriate, then identifies those activities that must be reviewed and approved by the Conflict of Interest Committee, and those activities that may proceed without review by the Conflict of Interest Committee. The Office of the General Counsel or the Conflict of Interest OfficeStaff, as appropriate, notifies the Conflict of InterestInterests Committee or the Board of Trustees, respectively, of those activities that must be further reviewed and approved. .

## 2.What is the approval process?

In reviewing a reperted activity, theThe Conflict of InterestInterests Committee assumes that the activity cannot be undertaken without a suitable
management plan. However. in some cases, the activity may be approvable without a management plam. In determiningreviews all disclosures to determine whether the disclosed financial interests are significant, whether they are related to the individual's University responsibilities, and whether a management plan is required. Reviews of individual disclosures conducted solely by the Audit Committee of the Board of Trustees are conducted according to the rules of the Board of Trustees.

In conducting review, the Conflict of InterestInterests Committee considers the significance of the conflict of interest (such as the sizea number of factors, including the value of the individual's financial interest);; and in the case of research, whether-or not the individual is uniquely qualified by virtue of expertise and experience to conduct the research project-and, whether the research could not be conducted as safely or effectively without that individual $;$, and the degree of risk imposed on research subjects.

Following are some examples of conflicts of $\leftarrow$ interest. In specific cases, individuals may be able to engage in some of these activities with a suitable management plan:
a. Serving-While serving as an investigator on a research project involving human subjects-that is either sponsored by a company or relatedrelates to thea company's products while that faculty member, ${ }_{2}$ an individual is receiving royalties, consulting fees,-from and/or has equity (or stock options or a future "inventor's share") in the same company.
b.Ghostwriting or having the individual's name attached to a paper written by another individual consulting for or directly employed by industry, including papers featuring data that were simply presented to presented to the An individual (without the opportunity to analyze directly, perform ealeulations, review and/or question the data).
c.A faculty member directing students to purchase books for a course from a bookstore in which he or she or his or her immediate family have a significant ownership interest.

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d.b. Managingmanages the renovation of University laboratory or utilizing University
d.b. Managingmanages the renovation of departmental offices and participatingparticipates, in the selection of an architectural firm in which his or her-spouse is a partner.
e.A faculty member acting as a thesis or dissertation advisor to a graduate student for a research project, suggested by the faculty member, that the faculty member expects will substantially enhance the value of a company in which the faculty member has a significant ownership interest.
f.A professor requiring students currently enrolled in his or her class to participate in his or her graduate student's thesis research research project as part of course requirements unless deemed pedagogically justified by the individual's department chair or dean.
g.A professor requiring students currently enrolled in his or her class to participate in his or her or another professor's research project unless deemed pedagogically justified by the individual's department chair or dean.
h.c. A faculty or non-faculty employee with a financial interest in an outside company servingserves as the direct academic or research supervisor of a university student/trainee who is, employed by that company.
i.A faculty member with a financial interest in an outside companyWhile serving as the sole thesis committee chair if the focus of the student's thesis is based on research sponsored by the company.
j.Jssuing a University subeontract for research to an outside entity in which the local principut investigator on the research project has a financial interest.
k.Receiving research support for human subjects research from industry without a contract, or for more than the reasomable costs of eondueting the contracted researel.
1.Aceepting financial suppert direetly from external sources, rather than through the university, for research conducted in a
resources.
m.Accepting compensation from companies for attending or defraying the costs of an industry-sponsored continuing medical education event (including gifts, travel, or accommodations) if the individual is not speaking or presenting.
$n$ n.Presenting talks or serving on speakers’ bureaus that advertise, market or advance industry products, devices or other technologies, including the marketing of offtabel drugs.
$\theta$.Receiving payments conditioned upon a particular research result or tied to successful research outcomes.
p-d. While serving on a the board of directors, participating in human subjects research on a technology owned by or obligated to the- of a business, or receiving an individual acts as an investigator on research sponsored research fromby the business.
q.Possessing a financial interest that competes with the services provided by the University. 4
f.Taking administrative action within the University that is beneficial to a business in which anAn individual has a financial interest.
s.Accepting personal gifts from industry, however small, including for listening to a sales talk by an inductry representative, or for prescribing or changing a patient's prescription.
t.e. Makingmakes referrals to a business in 4 which an individuathe or she has a financial interest.

In the case of an individual who is newly hired at the University, the Conflict of Interest Committee may permit a prohibited conflict of interest to continue for a finite period of time during a suitable transition period, provided that the period is as shont as possible.

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| 3.2._Management plan. | Formatted: Font: Bold |

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The Conflict of InterestInterests Committee may decide to approve an activity subject to a suitable management plan.

To "manage" means taking action to address a financial conflict of interest, which can include reducing or eliminating the financial conflicts of interest, and, in the case of conflicts of interest involving research, to ensure, to the extent possible, that the design, conduct, and reporting of research will be free from bias.

The management plan may include but is not limited to:
a. Requiring the individual to recuse him/herself from particular business decisions.
b. Requiring the individual to inform certain persons or institutions about the conflict of interest and the management plan (such as the Office of Research Compliance, IRBs, IACUGs, subjects,relevant review bodies, as required; state and federal officials;; research sponsors;; co-investigators;; colleagues; junior colleagues;; students; ${ }_{;}$; trainees $;_{;}$members and prospective members of the individual's research laboratory;; journals to which manuscripts about the research are submitted; $;{ }^{;}$and media, lay, and professional audiences with whom the research or other activity is discussed orally or in writing).
c. Requiring the individual to refrain from participating in certain activities or aspects of activities relating to the research project (such as requiring IRB members with conflicts of interest in connection with research protocols to recuse themselves from deliberations on those protocols, or, where compelling circumstances exist to allow certain research stages or activities to proceed despite a conflict of interest, restricting the individual's roles to those stages and activities, including establishing a point in time for stopping participation and strategies to keep the individual's involvement at a minimum).
d. Requiring the activity to be approved by additional individuals or entities (such as deans, department chairs, or program chairs).
e. Requiring others to review academic decisions in which the individual participates.
f. Requiring independent involvement in the research (such as in recruiting and selecting subjects, participating in or designing the consent process, providing clinical treatment to subjects apart from the research intervention or procedures, monitoring data, reviewing study design, collecting data, and determining authorship status or order).
g. Requiring the individual to reduce, modify, or eliminate a financial interest (including divesting ownership, restricting the sale or exercise of stock and stock options, and deferring or waiving royalties or milestone payments).
h. Requiring the individual to vacate a position.
i. Prohibiting the individual from disclosing confidential institutional information or channeling discoveries to an outside entity.
j. Prohibiting the research from taking place at the University.
k. Requiring continued oversight of the activity by the Conflict of Interestinterests Committee.

Management plans are developed according to the nature of the significant financial interest and of the sponsored research-related University activity, e.g., whether there is an institutional as well as an individual conflict of interest, and whether the investigator is conducting bench, animal or human subjects-research.

Before finalizing a management plan, the-The Conflict of Interestinterests Committee must review the plan with the appropriate dean;may involve the individual in the easeconflict of University officers, with the appropriate senior official; and in the case of non-school-based nonfaculty employees, with the senior University official with oversight over theminterest assessment. If the dean or senior official and the Conflict of InterestInterests Committee are unable to agree on the terms of determines a management plan is required, then upon finalizing the management plan, the matter is referredConflict of Interests Committee will
provide the management plan to the individual and inform the individual that the management plan is in effect.

## E. Training

Information regarding the University's conflict of interest policy and procedures will be made available to the Provest or Senior Vice PresidentUniversity community. All individuals required to disclose will receive pertinent information regarding disclosure requirements. The University will comply with federal financial conflict of interest regulations regarding providing training on requirements, including disclosure requirements for Administration-investigators applying for and engaged in PHS-funded research.
F. EReporting

The University will comply with federal regulations regarding reporting of financial conflicts of interest, e.g., by submitting financial conflict of interest reports to the awarding component, as required.

The University will comply with federal financial conflict of interest regulations regarding making publicly available information on identified financial conflicts of interest held by investigators and key personnel on PHSUniversity research.

## G. Subrecipient Reporting

The University will comply with federal conflict of interest regulations regarding subrecipient agreements, including for PHS-funded awards.

## H. Record Keeping

The University complies with federal regulations regarding maintaining records relating to all disclosures of financial interests and the University's review of, and response to, such disclosures.

## I. Appeals.

If an individual covered by this policy who is a faculty member is dissatisfied with a determination of the Conflict of InterestInterests Committee, the individual may submit a written appeal to the Provost within 10 days of receipt of the decision. The appeal shall be decided by the

Provost or his/her designee. The Provost or his/her designee will make best efforts to render a decision in writing within 30 days of receipt of the appeal. If the Provost upholds the Conflict of Interes $\ddagger$ Interests Committee's determination, the Provost's decision is final. If the Provost modifies or overrules the Conflict of Interestinterests Committee's determination, the Conflict of InterestInterests Committee may appeal to the President.

A non-faculty employee who is dissatisfied with a determination of the Conflict of Interes $\ddagger$ Interests Committee may submit a written appeal to the Senior Vice President for Administration within 10 days of receipt of the decision. The appeal shall be decided by the Senior Vice President or his/her designee. The Senior Vice President or his/her designee will make best efforts to render a decision in writing within 30 days of receipt of the appeal. If the Senior Vice President for Administration upholds the Conflict of InterestInterests Committee's determination, the decision of the Senior Vice President for Administration is final. If the Senior Vice President for Administration modifies or overrules the Conflict of InterestInterests Committee's determination, the Conflict of InterestInterests Committee may appeal to the President.

If the individual is the President or senior official, the President or senior official may submit a written appeal to the Audit Committee of the Board of Trustees within 10 days of receipt of the decision.

If the individual is a member of the Board of Trustees, the appeal is conducted in accordance with the policies and procedures of the Board of Trustees.

If, when the Conflict of Interest Committee and the dean or senior official who reviews a management plan are unable to agree on the terms of the plan and the matter is referred to the Provest or Senior Viee President for Administration, the Conflict of Interest Committee or the dean or senior official is dissatisfied with the decision of the Provost or Senior Vice President for Administration, they may refer the matter to the President.

## II. Institutional Conflict of Interest Policy:

## A. Who is covered by this policy?

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This institutional conflict of interest policy applies to the members of the Board of Trustees, the President, the Provost, all senior ("cabinetlevel") officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates), vice presidents, vice provosts, deputy provosts, deans, associate and vice deans, department chairs, academic division chiefs, directors of department-level centers, IRB chairs, the chair of the Conflict of
| Interest Interests Committee, the chair of the Institutional Biosafety Committee, and directors of institutes and centers with department-level status.

## B. What is an institutional conflict of interest?

An institutional conflict of interest arises when the financial interests of the University, or of a University official acting within his-or_/her authority on behalf of the University, may influence or appear to influence the research, education, clinical care, business transactions, or other activities of the University. In the case of research, the concern is that the financial interests of the University, or of a University official acting within his-or-/her authority on behalf of the University, might affect-or reasonably appear to affect-University processes for the conduct, review, or oversight of the research.

An institutional conflict of interest also might arise when an individual covered by this policy receives a financial or other benefit from the use or disclosure of non-public information pertaining to the University.

Institutional conflicts of interest may arise when outside activities are inconsistent with an individual's responsibilities to the University. Outside activities include leadership participation in professional, community, or charitable activities, self-employment, participation in business partnerships, employment or consulting arrangements with entities other than the University, either
| compensated or uncompensated, and service on any private-sector board, including for-profit, non-profit, advisory, or honorary. These
activities are inconsistent with an individual's responsibilities to the University when they adversely influence or appear to adversely influence the research, education, clinical care, business transactions, or other activities of the University.

An individual conflict of interest may raise an institutional conflict of interest issue and vice versa.

## C. Reporting.Disclosure

There is no separate individual reportingdisclosure under the institutional conflict of interest policy. The information reperteddisclosed on individual conflict of interest forms is used in carrying out the institutional conflict of interest policy.

In addition, the Conflict of Interest
OfficeInterests Committee Staff periodically must receive the following information:

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1. From the Senior Vice President of Finance and Chief Financial Officer, a list of the entities in which the University has any financial interest.
2. From the Board of Trustees, a list of the entities in which members of the Board of Trustees and senior officials of the University, their spouses, dependent children, domestic partners, or any other dependent person living in the same household as the individual, have any financial interest. The list of entities provided by the Audit Committee of the Board of Trustees to the Conflict of Interest Interests Committee does not contain the identities of the individuals who have the financial interest in those entities.
3. From the Office of Development, a list of major gifts to the University.
4. From the Office of Research and

Technology Management, a list of the University's equity holdings and technology licenses.
D. Review-and approval.

1. What is the review-process?

Reviews of reportsindividual disclosures conducted solely by the Audit Committee of the Board of Trustees are conducted according to the rules of the Board of Trustees.

In the case of all other reportsindividual disclosures, the Conflict of Interest-Interests Committee Chair and Staff, or the Office of General Counsel Staff, as appropriate, conducts an initial review. If necessary, it obtainsthey obtain additional information from the disclosing individual-covered by the policy and from other individuals who possess relevant information.

The Gonflict of Interest Office also reviews potential institutional conflicts of interest that are not required to be reported by an individual, such as non reportable potential conflicts that the Gonflict of Interest Office becomes aware of based on its review of the lists it receivesThe Conflict of Interests Committee Chair and Staff utilize information provided by the offices and departments of the institution (e.g., from the Senior Vice President of Finance and Chief Financial Officer, the Board of Trustees, the Office of Development, and the Office of Research and Technology Management) to review potential institutional conflicts of interest received.

The Conflict of Interest OfficeChair and Staff then identifiesidentify those activities that must be further reviewed and approved by the Conflict of InterestInterests Committee,,
The Conflict of Interests Committee will review the disclosures it receives to determine whether the disclosed financial interests of institutional officials or of the University are significant and thosewhether they are related to University activities that may proceed without review by the Conflict of Interest Committee, and notifies the Conflict of Interest Committee of those activities that the committee must review and approve., if so, whether management is required to manage the institutional conflict of interest.
2.What is the approval process?

In reviewing a reported activity, the Conflict of Interest Committee assumes that the activity eannot be undertaken without a suitable management plan. However. in some cases, the activity may be approvable without a management plan. In determining whether a management plan is required, the Conflict of Interest Committee considers the significance of
the institutional conflict of interest (such as the size of the individual's financial interest); whether or not there the individual is uniquely qualified by virtue of expertise and experience to conduct the research project and the research could not be conducted as safely or effectively without that individual; and the degree of risk imposed on research subjects.

In conducting review, the Conflict of Interests Committee considers a number of factors, including value of the institutional financial interest and the nature of related University activities.

Following are some examples of institutional conflicts of interest. In specific cases, individuals may be able to engage in some of these activities with a suitable management plan:
a. Activities in which the University or a University official, acting within his or her authority on behalfA vice president of the University, has a financial interest (as defined below) that may adversely affect or appear to a reasomable person to adversely affect the research, education, clinical care, business transactions, or other activities of the University.
b.Activities in which an individual covered by

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this policy has a financial interest that directly or indirectly might influence or appear to influence the individual's University responsibilities.
e.Activities in which an individual covered by this policy receives a financial or other benefit from the use or disclosure of nonpublic information pertaining to the University.
d.Outside activities (including leadership participation in professional, community, or charitable activities, self-employment, participation in business partnerships, any employment or consulting arrangements with entities other than the University, either eompensated or uneompensated, and any

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for the design, conduct, or reporting of the research) by individuals covered by this policy who have a financial interest (as defined below), no matter how small, that the individual or the individual's spouse, dependent children, domestic partner, or any other dependent living in the same household as the individual, in any entity that sponsors the research or owns a technology that is the subject of the research.
f.a. Research at the University on human subjects or on animals (including serving as the principal investigator or sharing in the responsibility for the design, conduct, or reporting of the research) by individuals covered by this policy who materially participate in a signs off on a procurement or purchasing decision involving major purchases from; or non-routine supply contracts with, a commercial entity that sponsors the researchof which he is a director.

A "financial interest" includes income; homoraria, consulting fees, advisory board fees, membership on a speaker's bureau, remuneration, gifts or other emoluments, "in kind" compensation, equity such as stock, stock options of other ownership interests; royalties; non university grants; debts; lams; nonuniversity contracts; licensing agreements; inventors' shares; and a board or other position with advisory or fiduciary duties, even if uncompensated.

## 3.Management plan.

b. A department chairman serves as an investigator in a research project sponsored by a company from which she receives consulting income.
c. As patent-holder, the University stands to gain royalties from intellectual property licensed to a company, and that intellectual property is being investigated under a research contract with the University.
d. A company that has made a major gift to the University has requested special consideration in the bidding process as
a vendor. The individual considering the bid is a consultant for the company.
e. A start-up company partially owned by the University has requested a discounted rate in utilizing several University core facilities. The facilities are overseen by an individual who is the chief scientific officer of the company.

## 2. Management

The Conflict of InterestInterests Committee may decide to approve an activity subject to a suitable management plan. The management plan may include:
1.a. Isolating the individual from involvement in research or decision-making regarding research.
z.b. Requiring the individual to reduce, modify, defer, waive, or eliminate the financial interest that is the source of the conflict, such as equity holdings, royalty income, stock options and milestone payments.
3.c. If recusal would preclude the individual from fulfilling the responsibilities of a University position, requiring the individual to eliminate the holdings or vacate the position.
4.d. Requiring the individual to recuse him- or $\longleftarrow$ Formatted: Bullets and Numbering herself from institutional decisions regarding the outside entity that is source of conflict.
e. Requiring the individual to make periodic written disclosure of the conflict to all administrators, faculty, non-faculty employees, and students under individual's supervision, to the Office of Research ComplianceAdministration, IRBs, IACUCs, subjects, state and federal officials, research sponsors, co-investigators, colleagues, junior colleagues, students, trainees, members and prospective members of the individual's research laboratory, journals to which manuscripts about the research are submitted, and media, lay, and professional audiences with whom the research or other activity is discussed orally or in writing. 5.
6.f. Appointing independent individuals or committees to oversee high-level

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administrative decisions (e.g., financial decisions, space allocations, appointments and promotions) in which the individual participates.
7.g. Prohibiting the research from taking place at the University.
8.h. Eliminating, reducing, or modifying the University's financial stake in an outside entity or research project.
9.i. Enhancing or creating firewalls or other conflict-management systems to separate financial and research decision-making.

10-j.Requiring independent involvement in the research (such as in recruiting and selecting subjects, participating in or designing the consent process, providing clinical treatment to subjects apart from the research intervention or procedures, monitoring data, reviewing study design, collecting data, and determining authorship status or order).
11.k. Preventing the individual from serving as the principal investigator, co-principal investigator, or investigator on the research project.
12.l.Protecting students, trainees, junior colleagues and/or non-faculty employees by preventing or limiting their participation in the research project, preventing or limiting them from working in newly-formed companies involving conflicted superiors, informing them of the potential conflict, giving them access to senior faculty and non-faculty employees to review questions or concerns, having academic decisions outside the research activity made or reviewed by independent individuals, and
| recusing the conflicted individual from the chain of authority over salary, promotion, and space allocation decisions.
13.m. Prohibiting the individual from participating in institutional negotiations with the outside entity except as the University directs.
14.n.

Prohibiting the individual from serving on the board of directors of the outside entity, or as an officer, member of the scientific advisory board, member of a speakers' bureau, or consultant.

15-0. $\quad$ disclosing confidential University information.
16.p. Prohibiting the individual from
17.q. Prohibiting the universityUniversity
from accepting research grants from from accepting research grants from companies founded by the individual.

Before finalizing a management plan, the
Conflict of Interest Committee must seek input
from the appropriate University officials

## E. Appeals-

When an individual withhas an individual conflict of interest and an institutional conflict of interest also has an individual conflict of interestexists, the appeal process under the individual conflict of interest policy applies.

In the event that an individual who is charged with executing an institutional conflict of interest management plan but who does not have an individual conflict of interest is dissatisfied with a determination of the Conflict of InterestInterests Committee, the individual may submit a written appeal to the President within 10 days of receipt of the decision. If the individual is the President, the President may submit a written appeal to the Audit Committee of the Board of Trustees within 10 days of receipt of the decision. If the individual is a member of the Audit Committee, the Audit Committee's deliberations and decision is conducted in accordance with the policies and procedures of the Board of Trustees.

If the President or the Audit Committee upholds the Conflict of InterestInterests Committee's determination, the decision is final. If the President modifies or overrules the Conflict of InterestInterests Committee's determination, the Conflict of InterestInterests Committee may appeal to the Audit Committee.

## III. Confidentiality

All information contained in reportsdisclosures or obtained in the course of reviewing a potential conflict of interest; or institutional conflict of interest, or conflict of commitment, is strictlykept confidential, subject to the

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University's reporting obligations to government agencies, research sponsors and the public. The information is enly available to the Conflict of Interest OfficeInterests Committee and its Staff, and to the individuals charged with the responsibility for review in the particular case. In addition, the disclosures received by the Conflict of Interests Committee are shared with the deans and department chairs or supervisors of the disclosing individuals at the request of the individual's dean, chair or supervisor, or at the request of the Conflict of Interests Committee. The individual's department chair, dean or supervisor will be provided with the management plan. There may be instances when other institutional officials must receive this information (e.g., members or staff of regulatory committees with oversight of activities covered in the management plan).

## IV. Sanctions

Failure to comply with these policies includes failing to submit a required reportdisclosure, providing false information, omitting required information, failing to maintain confidentiality, failure to carry out duties prescribed by these policies, and refusal or failure to comply with a management plan adopted under these policies.
\|
A failure to comply with these policies may, in | the case of sponsoredUniversity research, result in a decision by the Vice President for Research to suspend the research project or refuse to approve a new sponsoredUniversity research project for the individual who fails to comply.

A failure to comply also is subject to the full range of University disciplinary procedures, including:
a. Formal admonition.

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b. A letter in the individual's file indicating that the individual's good standing as a member of the University has been called into question.
c. Ineligibility of the individual to apply for grants, IRB approval, or supervision of graduate or professional students or trainees.
d. Additional sanctions per research funding agency may apply (such as requiring investigator financial conflict of interest training), up to and including sponsor
suspension of funding per applicable federal regulations. The University will comply with federal financial conflict of interest requirements regarding non-compliance retrospective review and corrective action.
d.e. Non-renewal of appointment.
e.f. Termination of employment.

The person responsible for ensuring that an individual has complied with the University's Conflict of Interest and institutional conflict of interest policiesPolicy must report a failure to comply to the Conflict of Interest Office, whichInterests Committee Chair or Staff, who refers it to the Conflict of InterestInterests Committee, except that a failure to comply by the President or a member of the Board of Trustees must be reported to the Audit Committee of the Board of Trustees.

The Conflict of InterestInterests Committee determines if the matter can be handled by requiring the individual to comply with a corrective action plan devised by the Conflict of InterestInterests Committee. If so, the Conflict of Interestinterests Committee devises the plan and advises the individual of its requirements. If the Conflict of InterestInterests Committee determines that the matter cannot be handled by requiring the individual to comply with a corrective action plan, or the individual refuses to comply, the Conflict of InterestInterests Committee refers the matter, along with its recommendations about how the matter should be handled, to the appropriate individual or body. In the case of faculty, the Conflict of InterestInterests Committee refers the matter to the Provost. In the case of the Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates as a senior "cabinet-level" official, the Conflict of InterestInterests Committee refers the matter to the President.

If an individual other than a non-faculty employee is dissatisfied with a determination of the Conflict of InterestInterests Committee to impose a corrective action plan or with administrative action by the Vice President for Research to suspend or refuse to approve a

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| sponsoredUniversity research project, the individual may submit a written appeal to the Provost within 10 days of receipt of the determination. A non-faculty employee who is dissatisfied with a determination of the Conflict | of InterestInterests Committee may submit a written appeal to the Senior Vice President for Administration within 10 days of receipt of the decision.

If the Provost upholds the Conflict of
| InterestInterests Committee's determination, the Provost's decision is final. If the Provost modifies or overrules the Conflict of InterestInterests Committee's determination, the Conflict of InterestInterests Committee may appeal to the President.

If the Senior Vice President for Administration
| upholds the Conflict of InterestInterests Committee's determination, the decision of the Senior Vice President for Administration is final. If the Senior Vice President for Administration modifies or overrules the Conflict of Interestinterests Committee's determination, the Conflict of InterestInterests Committee may appeal to the President.

Grievance proceedings are conducted in accordance with the procedures provided in Ghapter 3(I)(D) of the University Faculty Handbook and Section V 4 of the Human Resources Policy Manual.

## | V. Revisions to the Policies

Any revisions to these policies that are required by law or by government agency action
| automaticallywill become part of these policies. Other revisions to these policies become effective upon being approved by the President, the Provost, and the Executive Committee of the | Faculty Senate.

## Glossary

## Definitions

"Disclosure" - "Disclosure" means an individual's disclosure of financial interests and/or significant financial interests to the University.
"Faculty" - "Faculty," as defined in the Faculty Handbook, comprises tenured or tenure track faculty members, non-tenure track faculty members, and special faculty members. Special faculty members are: 1) those persons holding part-time academic appointments, and 2) persons holding full-time academic appointments, but who have specific, limited responsibilities for the duration of a specific project, or for a limited duration. Examples of special appointments are faculty members hired for one semester, who teach one course on a repeated basis, who engage in clinical supervision only without other responsibilities to the University, or who are engaged in a specific project conducted outside the University.
"Financial conflict of interest"- report" - In the sponsored research context, this refers to the University's financial conflict of interest report to the awarding component.
"Financial interest" - A "financial interest" includesmeans anything of monetary value, whether or not the value is readily ascertainable. Examples of financial interests include the following: income; honoraria; consulting fees; advisory board fees; membership on a speaker's bureau; remuneration; gifts or other emoluments; "in kind" compensation; travel expenses and reimbursement, other than those paid for by the University- or its hospital affiliates, or reasonable travel expenses paid for participation in scholarly and academic endeavors and/or those described in the exclusions in Section I.C.3.of this policy; equity such as stock, stock options or other ownership interests, including equity that individuals covered by this policy know they will inherit; royalties; non-university grants; debts; loans; non-university contracts; licensing agreements; inventors' shares; and a board or other position in the private sector (including nongovernmental organizations (NGOs)) with advisory or fiduciary duties, even if theompensated. Disclosure of a board membership or other officer position involving advisory or fiduciary duties with any outside
entity is required where: 1 ) the individual receives compensation from the entity (i.e., salary or other remuneration; equity interest, such as stock, stock options or other ownership interest; or other compensation of monetary value); or 2) the board or officer position (whether compensated or uncompensated) is with a for-profit outside entity or with an outside entity (for-profit or non-profit) that has a vendor or sponsor relationship with the University or its clinical affiliates, to the best of the individual's knowledge.
"Individual conflict of interest" - An outside interest that might adversely affect or appear to a reasonable person to adversely affect an individual's judgment in carrying out University responsibilities, or that might adversely affect or appear to a reasonable person to adversely affect the University's responsibility to the public, the safety of research subjects, or the integrity of research. For the purposes of research, a financial conflict interest means a significant financial interest that could directly and significantly affect the individual's University responsibilities, and in the case of research, that $\leftarrow$ could directly and significantly affect the design, conduct, or reporting of research.
"Institutional conflict of interest" -- An institutional conflict of interest arises when the financial interests of the University, or a University official acting within his-or/her authority on behalf of the University, may influence or appear to influence the research, education, clinical care, business transactions, or other activities of the University; when an individual covered by this policy receives a financial or other benefit from the use or disclosure of non-public information pertaining to the University; and when outside activities are inconsistent with an individual's responsibilities to the University.
"Institutional responsibilities" - "Institutional responsibilities" are defined as those professional responsibilities that are conducted on behalf of the University. Examples of institutional responsibilities include: activities such as research, research consultation, teaching, professional practice, institutional committee memberships, and service on panels such as Institutional Review Boards or Data and Safety Monitoring Boards.

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"Investigator" - "Investigator" means the principal investigatorProject Director, Principal Investigator and any other person who is significantly involved in and responsible for the design, conduct or reporting of research, or proposal for such funding, including the person's spouse and dependent children and/or any other collaborators or consultants. The term also includes investigators working for subgrantees, contractors, subcontractors, and collaborators. See also the definitions provided in this policy for "Project Director/Principal Investigator" and "Senior/key personnel."
"Manage" - "Manage" means taking action to address a financial conflict of interest, which can include reducing or eliminating the financial conflicts of interest, to ensure, to the extent possible, that the design, conduct, and reporting of research will be free from bias.
"Outside activities" --_"Outside activities" include leadership participation in professional, community, or charitable activities, selfemployment, participation in business partnerships, employment or consulting arrangements with entities other than the University, either compensated or uncompensated, and service on any board, including for-profit, non-profit, advisory, or honorary.
"Project Director/Principal Investigator" - These terms refer to the project director or principal investigator of a research project. See also the definitions provided in this policy for
"Investigator" and "Senior/key personnel."
"Senior officials" - "Cabinet-level" officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates).
"Senior/key personnel" - These terms are used interchangeably to refer to the Project
Director/Principal Investigator and any other senior or key personnel identified by the University on PHS-funded grant applications, progress reports, or any other reports to the PHS by the University. See also the definitions provided in this policy for "Investigator" and "Project Director/Principal Investigator."
"Travel expense disclosure" - Disclosure of travel expenses and reimbursement is required for travel that is not reimbursed or sponsored by a federal, state, or local government agency, an institution of higher education as defined at 20 U.S.C. 1001(a), an academic teaching hospital, a medical center, or a research institute that is affiliated with an institution of higher education. Disclosure of the nature of the travel will be accomplished on the annual disclosure form.

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# CASE WESTERN RESERVE UNIVERSITY FRANCES PAYNE BOLTON SCHOOL OF NURSING BYLAWS OF THE FACULTY <br> ARTICLE I 

## PURPOSE OF THE BYLAWS

These bylaws of the Frances Payne Bolton School of Nursing of Case Western Reserve University (1) define the duties of the Faculty of Nursing, committees and officers, (2) provide for establishment of committees and (3) provide for election of representatives of the Faculty of Nursing to the Faculty Senate, and to university assemblies as requested.

## ARTICLE II

## RESPONSIBILITIES OF THE FACULTY OF NURSING

## Section 1: This faculty shall have responsibility to:

a. Adopt rules to govern its procedures, provide for its committees and make recommendations to the dean for such organization of the teaching staff as it may determine.
b. Organize and execute the educational program of the School of Nursing including admission and progression policies, curriculum content, degree requirements, instruction, and establishment and dissolution of academic programs, other than degree programs which require additional review and approval procedures as noted in the Faculty Handbook
c. Make recommendations to the dean of initial appointments to the ranks of instructor, assistant professor, associate professor and professor.
d. Establish policies relating to appointment, re-appointment, promotion and tenure for voting faculty and policies for appointment and promotion for special faculty members.
e. Make recommendations to the dean for tenure and promotion of faculty.
f. Elect members to the Faculty Senate and to university assemblies as requested.

ARTICLE III

## MEMBERSHIP

Section 1 Exception to Rule In Faculty Handbook
Because of the practice nature of the discipline, the Provost has granted the School of Nursing an exception to the Faculty Handbook provision requiring that a majority of the voting faculty shall be tenured or tenure track. The goal of the School of Nursing is to reach such a majority..

## Section $2 \quad$ Voting members

The president and the chief academic officer of the university next in rank to the president and all persons holding full-time tenured/tenure track and full-time non-tenure track appointments to Faculty of Nursing at the rank of professor, associate professor, assistant professor, and instructor shall be voting members of the faculty.

## Section 3 Special Faculty (Non-voting members)

Special faculty shall consist of faculty members who are appointed by the dean of the school and 1.) hold full-time academic appointments but have specific, limited responsibilities for the duration of a specific project or for a limited duration, or 2.) hold part-time academic appointments. Special faculty shall have voice but no vote except as noted in Article VIII, Section I b. Subject to approval by the provost, the types and titles of special faculty are as follows:

Comment [el]: Recommended change from the
FC Bylaws Committee

## a. Lecturer

All persons designated as lecturer are those:

1. Who have responsibility for teaching one or more courses included in the school's curricula; and
2. Whose academic qualifications and competencies are other than those for established university ranks.
b. Clinical Faculty

Includes all persons designated at the ranks of clinical professor, clinical associate professor, clinical assistant professor, and clinical instructor, and whose primary appointments are in service agencies whose resources provide settings, by agreement, for students and faculty to have opportunities to engage in education, research and service in accordance with policy and procedures of the School of Nursing.
c. Preceptor

All persons designated as preceptor are those:

1. Whose academic qualifications and competencies are other than those for established university ranks
2. Whose primary appointments are in service agencies whose resources provide settings, by agreement, for students and faculty to have opportunities to engage in education, research and service in accordance with policy and procedures of the School of Nursing.
d. $\quad$ Adjunct Appointments

Persons designated at university ranks of adjunct professor, adjunct associate professor, adjunct assistant professor, and adjunct instructor are those:

1. Whose special competencies can provide a desired complement for some designated service, activity or development of the School of Nursing; and
2. Whose academic qualifications meet criteria established for appointees at the same ranks and tracks as shown in Attachment $A$.

## Research Faculty

Persons designated at university ranks of research assistant professor, research associate professor, or research professor are those whose primary responsibilities are related to the research mission of the school and university. Neither teaching nor service (other than that related to the research mission) is part of the responsibilities of the research faculty member.

1. Research experience and qualifications are comparable to those of tenured/tenure track faculty at corresponding ranks.
2. Appointment as a research faculty member is contingent upon the availability of research funds to totally cover costs of the research and compensation. The appointment will terminate either prior to or at the end of the current appointment period in the absence of sufficient funds to cover these costs.
3. In the case of new appointments and promotions, the Committee on Appointment, Reappointment, Promotion and Tenure will provide a full review, comparable for that done for appointments and promotions of regular faculty to the ranks of assistant professor, associate professor, and full professor.

## ARTICLE IV

## SELECTION OF TRACK

Tenure or non-tenure track must be identified at the time of appointment or promotion to assistant professor or higher. The pre-tenure period in the School of Nursing begins at the rank of assistant professor or higher in the tenure track and is nine (9) years in length.

Tenured and tenure track faculty member obligations to the university include 1) teaching, 2) research, and 3) service to the university community. Non-tenure track faculty member obligations include two of the three.

## ARTICLE V

## OFFICERS

Section $1 \quad$ Chairperson - The president of the university shall preside at faculty meetings. In the president's absence, the chair of the Executive Committee shall chair the meeting; in the absence of the Executive Committee chair, the dean's designee shall preside.

Section 2 Secretary - The secretary shall be appointed annually by the Executive Committee. The functions of the secretary are:
a. Monitoring the preparation of the minutes of the faculty meetings. Signing the official copy of the minutes.
b. Being responsible for distribution of these minutes to the faculty.
c. Serving on the Executive Committee.

## ARTICLE VI

## MEETINGS

Section 1. Regular Meetings - At least four (4) regular meetings shall be held between September 1 and May 31.

Section 2. Special Meetings - Special meetings may be called by the president, by the dean or upon request of three members of the voting faculty.

Section 3. Executive Committee Meetings - At least four (4) meetings shall be held between September 1 and May 31.

Section 4. Quorum - Forty Twenty five percent of the voting members of the faculty shall constitute a quorum.

Comment [e2]: Recommendation from the FS
Bylaws Committee

## Section 5. Voting Body - See Article III, Sections 2 and 3 of these bylaws.

Section 6. Notice-The Chair, or, on the Chair's designation, the Secretary shall notify each member of the faculty at least one week before each regular and special meeting. Such notification shall be in writing and shall specify the time and place of the meeting.

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Bylaws Committee
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## STANDING COMMITTEES

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## Section $1 \quad$ Membership and Voting Privileges

a. The president of the university and the dean of the School of Nursing shall serve as members ex-officio of all faculty committees. Ex-officio status here and in subsequent sections of the bylaws carries with it voting privileges.
b. Persons holding appointments as special faculty may serve on committees and may vote in committees unless otherwise indicated in these bylawsas designated in these bylaws.
c. Students serving on standing committees of this faculty may vote in committees unless otherwise indicated by these bylaws.
d. A faculty member may serve in no more than two (2) elected positions per year on standing committees of these bylaws.
e. An elected member shall be eligible for no more than two (2) consecutive terms on the same committee. An appointment to fill a vacancy on a committee does not constitute a term.
f. An administrative person serving as an ex-officio member of a standing committee shall convene the first meeting of the year, assist with administrative functions of the committee and provide continuity in the committee activities.
g. A quorum of any standing committee shall be one half the voting members unless specifically stated in the by-laws.

Section 2 Election and Appointment - The members of all standing committees shall be elected by the voting faculty or appointed as specifically stated. Faculty nominate themselves for positions on the ballot prepared by the Executive Committee. Committee vacancies will be filled by Executive Committee appointment. Elections will be held spring semester with newly elected and appointed members assuming duties beginning fall semester.

Section $3 \quad$ Term of Office- The members shall serve for a specified term on each appointed

Comment [e4]: Recommendation from the FS Bylaws Committee
or elected committee as designated in Article VII, Sections 6-15 of these bylaws.
Section 4 Chairperson - When the chairperson of a standing committee is not designated, and an ex-officio member is not regularly a member of the committee, a faculty member selected by the Executive Committee shall convene the first meeting of the academic year.
| The chairperson of each standing committee shall be elected annually in the fall by committee_members, unless otherwise specified.

Section $5 \quad$ Reporting - Each standing committee shall submit a written report at
least one time per semester and following each regularly scheduled meeting if they occur more often to the faculty for each faculty meeting.

Section $6 \quad$ Executive Committee of the Faculty
a. Membership - The committee shall be composed of:

1. SevenEight (8그) faculty members: six (6) members shall be voting faculty; onetwo
(21) shall be special faculty.
2. The dean of the School of Nursing - ex-officio.
3. The executive associate dean for academic programs or an administrative officer who has academic status, appointed by the dean - ex-officio.
4. The associate dean for research - ex-officio.
5. The secretary of the faculty - ex-officio.
6. School representative to Faculty Senate Executive Committee - ex-officio

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b. Term - Faculty shall be elected for a term of two (2) years. Four (4) faculty members shall be elected in even years and four (4) faculty members elected in odd years.
c. Functions

1. Identify immediate and long-range issues needing faculty study and action.
2. Provide all faculty the opportunity for discussion of proposals for faculty action.
3. Prepare the agenda for each faculty meeting.
4. Prepare and submit proposed changes in the bylaws to all faculty.
5. Prepare a ballot and conduct an election for all elected positions within the school and university. Electronic ballots are permissible.
6. Appoint ad hoc committees of the faculty. The Executive Committee shall provide each such ad hoc committee with a specific charge stated in writing and the ad hoc committee shall confine itself to the fulfillment of this charge unless otherwise authorized in writing by the Executive Committee. The maximum term of any such ad hoc committee shall be twelve months, subject to extension at the discretion of the Executive Committee.
7. Act on behalf of the faculty between regular meetings of the faculty. Such action shall be reported by the chairperson of the Executive Committee at the next regular meeting of the faculty.
8. Make appointments to fill vacancies on standing and ad hoc committees unless otherwise stated in these bylaws.
9. Make recommendations to the dean on faculty-requested academic leaves of absence.
10. Evaluate specific cases of student progression/retention as requested by program directors or students.

## Section 7

 Budget Committeea. Membership _ The committee shall be composed of: 1. Six (6) voting faculty members three (3) of whom are elected and three (3) of whom are appointed. Appointments are made by the Executive Committee.
2. The dean of the School of Nursing - ex-officio
b. Term - Voting faculty are elected or appointed for a three (3) year term with one (1) faculty elected and one (1) faculty appointed each year.
c. Functions

1. Review proposed budgets for consistency with strategic plan priorities.
2. Review fiscal reports biannually and as needed.
3. Advise the dean on fiscal matters.
4. Advise the dean on the number and type of faculty and staff positions.
5. Recommend to the dean allocation of resources to
faculty. Section 8 Committee on Curricula
a. Membership - The committee shall be composed of:
6. Four (4) voting faculty members and one (1) special faculty member.
7. Four (4) students: one (1) from the BSN program, one (1) from the MSN program, one (1) from the MN program, and one (1) from the DNP program.
8. Program directors for the BSN, Grad Entry, MSN and DNP programs - ex-officio.
9. The executive associate dean for academic programs - ex-officio.
b. Term - Voting faculty shall be elected for a term of two (2) years. Two (2) voting faculty members shall be elected in even years and two (2) voting and one (1) special faculty member shall be elected in odd years. Students are selected by the appropriate student association and shall serve for one (1) year.
c. Functions
10. Evaluate the curricula and courses in the BSN, MN, MSN, and DNP programs, and other approved academic programs..
11. Recommend to faculty changes to existing programs or courses, creation of new programs, specialties, majors or courses, and deletion of current programs, specialties, majors or courses.
12. Recommend policies to the faculty regarding the progression and graduation of students.

Section $9 \quad$ Committee on Admission to the Master of Nursing (MN) Program
a. Membership - The Committee shall be composed of:

1. Five (5) elected and up to three (3) appointed faculty members all of whom must be voting faculty.
2. Director of the MN Program who shall serve as chair.
b. Term - Faculty shall be elected for a term of two (2) years; three (3) members shall be elected in even years and two (2) members elected in odd years. Up to three (3) faculty shall be appointed annually by the director of the MN program.
c. Functions
3. Evaluate MN program admission policies and criteria and recommend changes to the faculty.
4. Interview non-nurse, post-baccalaureate applicants to the MN program.
5. Admit applicants to the MN program.

## Section 10 Committee on Admission to the Doctor of Nursing Practice Program (DNP)

a. Membership - The committee shall be composed of:

1. Three (3) elected and two (2) appointed faculty members all of whom must be voting faculty.
2. Director of the DNP program who shall serve as chair.
b. Term - Faculty shall be elected for a term of two (2) years; two (2) members shall be elected in even years and one (1) member elected in odd years. Two (2) faculty shall be appointed annually for one (1) year terms by the associate dean for doctoral programs.
c. Functions
3. Evaluate DNP program admission criteria and policies and recommend changes to the faculty.
4. Interview applicants for admission to the DNP program.
5. Admit qualified applicants to the DNP program.

Section 11 Committee on Admission to the Master of Science in Nursing (MSN) Program
a. Membership - The Committee shall be composed of:

1. Four (4) members; all must be voting faculty.
2. Director of the MSN Program, who shall serve as chair.
b. $\quad$ Term - Faculty shall be elected for a term of two (2) years; two (2) members shall be elected in even years and two (2) members elected in odd years.
d. Functions
3. Evaluate admission policies and criteria, for the MSN Program and recommend changes to the faculty.
4. Admit qualified applicants for admission to the MSN program.
5. Interview applicants, if appropriate
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Section 12 Bachelor of Science in Nursing (BSN) Program Admission and Progression Committee
    a. Membership - The committee shall be composed of:
    1. Two (2) elected and two (2) appointed faculty members all of whom must be
        voting faculty. Faculty shall be appointed by the director of the BSN program.
2. Director of the B.S.N. Program, who shall serve as chair.
b. Term - One (1) faculty shall be elected and one (1) shall be appointed in even years; one(1) faculty shall be elected and one (1) faculty shall be appointed in odd years; elected and appointed faculty shall serve two (2) year terms. Faculty shall be appointed by the director of the BSN program.
Functions
1. Evaluate Bachelor of Science in Nursing admission policies and criteria and recommend changes to the Office of Undergraduate Admission.
2. Evaluate applications as requested by the Office of Undergraduate Admission.
3. Advise the director of the BSN program on issues of admission and progression of individual undergraduate nursing students.
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## Section $13 \quad$ Board of Appeals

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a. Membership
1. Equal number of students and faculty.
2. Three (3) voting members of the faculty shall be elected. Student representatives shall be appointed as needed by the Undergraduate Student Nurses Association and the Graduate Student Nurses Association with one each from the BSN, MSN, and MN program.
3. One (1) of the elected faculty members will be designated as chairperson by the dean.
4. If for any reason there are not at least two (2) faculty and two (2) student members of the Board of Appeals available to hear the appeal, the Executive Committee of the faculty shall designate faculty member(s) as replacements and the Executive Committees of the Student Associations designate student member(s) as replacements.
b. Term - Faculty shall be elected for a term of two (2) years. Two (2) shall be elected in odd-numbered years and one (1) in even-numbered years.
c. Functions
1. Schedule and conduct hearings according to policy and procedure after notification of an official appeal of a grievance or after official notification of a potential violation of academic integrity for which the School of Nursing has jurisdiction.
2. Submit recommendations to the dean upon adequate deliberations following the hearing.
Section 14 Committee on Faculty Appointment, Reappointment, Promotion and Tenure
a. Membership
1. The dean of the school who serves as chairperson.
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3. Additional members may be appointed from among the tenured faculty at the discretion of the dean so long as the number does not exceed the number of professors with tenure.
b. Functions
4. Recommend to the faculty revisions or changes in the definitions of faculty appointments to the School of Nursing. (see attachment A)
5. Make recommendations for emeritus status.
6. Review university and school policies relevant to faculty appointments, reappointments, promotion and tenure and to make recommendations for needed change through appropriate channels to the faculty of nursing and to the Faculty Senate.
7. Review procedures relevant to faculty appointments, reappointments, promotion and tenure and make recommendations for needed change through appropriate channels to the faculty of nursing and to the Faculty Senate.
8. Recommend appointments, reappointments, promotions and tenure for the voting faculty.
9. Review the resources and time (taking into account rank and type of faculty appointment) needed for scholarly growth, academic achievement and professional development including the commitment of resources that accompanies an award of tenure, and recommend changes to the faculty of nursing and administration.

Section 15 Committee for Evaluation of Programs
a. Membership

The committee shall be composed of:

1. Four (4) voting faculty members and one (1) special faculty member.
2. Five (5) students: one (1) from each of the four programs, BSN, MSN, MN, DNP and PhD selected by the appropriate student association.
3. The program directors for the BSN, MSN, MN, DNP and PhD Programs - ex officio.
4. The executive associate dean for the academic programs - ex officio.
b. $\quad \underline{T e r m}$

Faculty shall be elected for a term of two (2) years; two (2) members to be elected in even years, and two (2) members elected in odd years. Student members shall be selected by the respective student associations annually.

Functions

1. Develop forms and procedures to evaluate educational process, course and program outcome criteria. Individual faculty members and program directors will be responsible for evaluating courses and teaching effectiveness.
2. Implement, monitor and revise an ongoing system for evaluation.
3. Report its findings and recommendations to the faculty for action.
4. Nine elected members with voting privileges; all voting faculty members with research doctorates (e.g., PhD, DNSc, EdD); one (1) will serve as chair of the admissions committee; the composition of membership will include.
a. Two (2) to four (4) members from each rank: Assistant Professor, Associate Professor, and Full Professor.
b. The majority of Council members should be tenured or on the tenuretrack.
5. Four (4) ex officio members (Dean, Associate Deans for Doctoral Education, Academic Programs, and Research; these members will have voting privileges.
6. The Director of Institutional Research in the School of Nursing (non-voting).
7. One PhD student representative (non-voting)
b. Elections
8. Faculty members will nominate themselves or be nominated by colleagues. Members will be elected from the pool of nursing faculty members who hold research doctorates (i.e., PhD, DNSc, EdD) and have an active program of research (i.e., have conducted and published research within the past three (3) years) and are eligible to teach in the PhD program and/or advise/mentor PhD students.
9. Eligibility for placement on the ballot and the determination of the composition of the committee will be made by a two (2) to three (3) member subcommittee of the PhD Council.
c. Terms of office
10. Three Council members will be elected in the Spring semester each year to serve a three (3) year term so that the terms are staggered; members may serve for not more than two (2) consecutive terms.
11. If a Council member is unable to fulfill his or her term for any reason, the remaining members of the PhD Council will appoint another eligible faculty member to fulfill the term.
d. Functions
12. Establish and maintain criteria for appointment of PhD Council.
13. Establish and maintain all policies for admission, progression, candidacy, and graduation of students in accordance with the policies governing requirements for the PhD in Nursing and the School of Graduate Studies.
14. Develop, evaluate, and change the curricular requirements of the PhD in Nursing program.
15. Recommend to the School of Graduate Studies:
a. PhD nursing students for candidacy.
b. PhD students for graduation
16. Provide advice to the program director on issues related to admission, progression, and evaluation of courses and PhD program.
17. Collaborate with the Office of Student Services at the School of Nursing in PhD student recruitment.
18. Communicate with and obtain feedback from the pool of nursing faculty members who hold research doctorates (e.g., PhD, DNSc, EdD).
19. Monitor the progress of the PhD program in meeting quality indicators.
e. Meetings
20. Monthly meetings will be held during the academic year and as needed during the summer months.
21. Meetings will be open to all nursing faculty members with research doctorates (e.g., PhD, DNSc, EdD).

## Committee on Admission to the PhD Program

a. Membership

1. Six (6) members; all voting faculty members with research doctorates (e.g., PhD, DNSc, EdD).
2. Chairperson elected from PhD Council.
3. Director of the PhD program is a member Ex-officio.
b. Election

Faculty members will nominate themselves or be nominated by colleagues; members will be elected from the pool of nursing faculty members who hold research doctorates (e.g., PhD, DNSc, EdD) and an active program of research/scholarship and are eligible to teach in the PhD program and/or advise/mentor PhD students.
c. Terms of office

1. Faculty shall be elected in the Spring semester of each academic year for a term of two (2) years; three (3) members shall be elected in even years and three (3) members elected in odd years.
2. If a committee member is unable to fulfill his or her term for any reason, the remaining members of the PhD Council will appoint another eligible faculty member to fulfill the term.
d. Function

Recommend to the Associate Dean for Doctoral Education and School of Graduate Studies qualified applicants for admission to the PhD in nursing program.

## ARTICLE VIII

## SPECIAL COMMITTEES

Special committees may be designated to carry on faculty business not otherwise specified in these bylaws. Members shall be appointed by the dean. Special committees shall submit regular reports to the faculty.

## ARTICLE IX

UNIVERSITY FACULTY SENATE
Section $1 \quad$ Representation
a. The faculty of nursing shall elect senators to the Faculty Senate. The number of senators shall be in accordance with the Constitution of the University Faculty.
b. The student body of the School of Nursing may have elected members on the Faculty Senate in accordance with the Constitution of the University Faculty.

## Section 2 Election

a. The senatorial elections shall be held in the spring term.
b. Faculty Senators from the School of Nursing shall be voting members of the faculty. These senators shall be elected to serve three (3) year terms; one-third of them shall complete their term of office on commencement day each year. A Senator shall not be seated unless at least $40 \%$ of the voting members have returned ballots in the election.

ARTICLE X

## REVISION OF BYLAWS

These bylaws may be amended by a two-thirds affirmative vote of the voting members present at any meeting, provided copies of proposed changes have been distributed to all members, both voting and nonvoting, at least two (2) weeks before the meetings at which the vote is taken.

If changes have not been distributed at least two (2) weeks in advance, these bylaws may be amended by a $95 \%$ affirmative vote by the voting members of the faculty present at any meeting.

ARTICLE XI

## PARLIAMENTARY AUTHORITY

Robert's Rules of Order Newly Revised (most recent revision)

## Criteria for Appointment, Reappointment, Promotion and Tenure for Voting Tenured/tenure Track, and Nontenure Track and Special Faculty Members

## Full-Time Tenured/tenure Track

Obligations: | teaching, research and |
| :--- |
| service to the University community |

Lecturer

Instructor
criteria not applicable

## Assistant <br> Professor

## Full-Time Nontenure Track

2 of the 3 listed for tenure track
criteria not applicable

## Special

1 of the 3 listed for tenure track

Academic qualifications and competencies are other than those for established University ranks.
. Master's degree in nursing or Master's degree in a field of special need.
2. Evidence of competence in teaching and in the practice of nursing or in a field of special need.
3. Recognized professional expertise and leadership in a specialty area.

1. Earned doctorate.
2. Excellence in clinical practice and teaching.
3. Scholarly productivity as evidenced by publications in clinical and professional journals, presentations, school/professional committee memberships, and state and local recognition.
4. Master's degree in nursing or masters degree in a field of special need.
5. Evidence of competence in teaching and in the practice of nursing or in a field of special need.
6. Recognized professional expertise and leadership in a specialty area.
7. Earned doctorate.
8. Excellence in clinical practice and teaching
9. Scholarly productivity as evidenced by publications in clinical and professional journals, presentations, school/professional committee memberships, and state and local recognition.

Professor

1. Excellence in teaching.
2. Evidence of academic leadership.
3. Research productivity and scholarship 4. Contribution to international scholarship through publications and presentations.
4. University, School, and professional organization committee membership.
5. Contributions to national organizations.
6. Major University, School and professional organization committee leadership.
7. Substantive scholarly contributions nationally and internationally.
8. Influence in public policy on a national and international level.
9. Expertise in clinical practice
10. Evidence of academic and clinical leadership.
11. Clinical scholarship
12. National and international recognition in the profession.
13. University, School, and professional organization committee membership. 6. Contributions to national organizations.
14. Major University, School and professional organization committee leadership.
15. Substantive scholarly contributions nationally and internationally.
16. Influence the development of professional policies through national or international leadership activities
17. Expertise in clinical practice.
18. Evidence of academic and clinical leadership.
19. Clinical scholarship
20. National and international recognition in the profession.
21. University, School, and professional organization committee membership. 6. Contributions to national organizations.
22. Major University, School and professional organization committee leadership.
23. Substantive scholarly contributions nationally and internationally.
24. Influence the development of professional policies through national or international leadership activities

## BY-LAW III. MEETINGS

## Item a. Regular Meetings.

Pursuant to the Constitution, Article V, Section B, during each academic year the Faculty Senate shall hold at least three regular meetings within the period from September to December, inclusive, and at least three within the period from January to May, inclusive. The period between any two successive regular meetings shall not normally be less than approximately one month. The dates of regular meetings shall be determined by the Executive Committee in consultation with the Secretary.

## Item b. Special Meetings.

Special meetings of the Faculty Senate may be called by the President, by the Chair, by majority vote of the Executive Committee, or upon written petition, stating the purpose of the proposed meeting and signed by not less than twenty percent of the membership of the Faculty Senate. Such petition shall be delivered to the Secretary who shall certify it to the Chair, who, in turn, shall call the special meeting. Special meetings of the Faculty Senate may, at the discretion of the Executive Committee, allow for electronic attendance and voting. The following rules shall apply.
a. A quorum will be determined at the beginning of the meeting by counting the Senators present in the room as well as the Senators attending remotely. The affirmative vote of a majority of the quorum shall be the minimum vote requirement for the adoption of any motion. A majority of the votes cast, or a greater proportion as indicated by the adopted Parliamentary Authority, shall be necessary for the adoption of motions.
b. The technology used for the electronic meetings shall allow the members full access to and full participation in all meeting transactions either continuously or intermittently throughout the specified time of the meeting.
c. Procedural rules related to the conduct of electronic meetings shall be established and promulgated by the Executive Committee, subject to review by the Senate, and held by the Secretary of the Faculty Senate.

## Additional Rules for Conducting Electronic Meetings

1. These meetings will be conducted with Adobe Connect (or similar software) and with a phone bridge. Adobe Connect will allow remote participants to hear everything said in the meeting room and to see presentations. The phone bridge will allow Senators in the meeting room to hear the remote participants, when recognized by the chair.
2. The equipment in the meeting room will consist of one camera trained on the podium and a phone bridge. The university ITS department will provide this equipment and the staff needed to operate it. Remote attenders will be expected to use their own computers and phones.
3. The chair-elect will administer the electronic component of the meeting.
4. In the case of technical difficulties, the meeting will be held without the remote attenders, providing that there is a quorum.
5. Remote participants may seek recognition by clicking on the hand icon in Adobe Connect (or using an equivalent function in other software). The chair-elect will notify the chair that a remote participant wishes to address the Senate.
6. Remote attenders may offer motions orally; these will be transcribed for the Senate by the Secretary of the Senate.
7. Remote participants may vote by using the voting feature in Adobe Connect (or using an equivalent function in other software).
8. The feature of Adobe Connect (or any other software that is adopted for this purpose) to prevent all but current Senators from attending the meeting electronically will be implemented.

## Faculty Diversity Report

## Faculty Senate

## April 25, 2012

Marilyn S. Mobley, PhD

Vice President
Inclusion, Diversity and Equal
Opportunity

## Total Faculty by School/College

| Faculty Comparison | 2005/06 <br> Faculty | $\mathbf{2 0 0 6 / 0 7}$ <br> Faculty | 2007/08 <br> Faculty | 2008/09 <br> Faculty | 2009/10 <br> Faculty | 2010/11 <br> Faculty | 2011/12 <br> Faculty |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 220 | 219 | 222 | 229 | 241 | 255 | 261 |
| Dental Medicine | 66 | 68 | 71 | 73 | 70 | 67 | 65 |
| Engineering | 117 | 115 | 110 | 108 | 107 | 111 | 114 |
| Law | 48 | 51 | 51 | 49 | 47 | 43 | 45 |
| Management | 74 | 60 | 61 | 58 | 59 | 66 | 69 |
| Medicine | 748 | 756 | 621 | 585 | 578 | 577 | 593 |
| MSASS | 25 | 26 | 27 | 26 | 25 | 26 | 28 |
| Nursing | 59 | 71 | 75 | 81 | 92 | 87 | 82 |
|  |  |  |  |  |  |  |  |
| Total Faculty | $\mathbf{1 , 3 5 7}$ | $\mathbf{1 , 3 6 6}$ | 1,238 | $\mathbf{1 , 2 0 9}$ | $\mathbf{1 , 2 1 9}$ | $\mathbf{1 , 2 3 2}$ | $\mathbf{1 , 2 5 7}$ |

All numbers are for Board-approved, Case-paid faculty only at the rank of instructor and above.
For the School of Medicine, this number changed after the affiliation agreement went into effect during 2006.

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## Women Faculty by School/College

| Faculty Comparison | 2005/06 <br> Women | 2006/07 <br> Women | 2007/08 <br> Women | 2008/09 <br> Women | 2009/10 <br> Women | 2010/11 <br> Women | 2011/12 <br> Women |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 73 | 81 | 84 | 85 | 96 | 104 | 107 |
| Dental Medicine | 17 | 18 | 21 | 23 | 23 | 22 | 21 |
| Engineering | 12 | 13 | 12 | 14 | 13 | 14 | 14 |
| Law | 12 | 16 | 18 | 19 | 19 | 17 | 17 |
| Management | 16 | 14 | 13 | 11 | 11 | 13 | 15 |
| Medicine | 259 | 265 | 209 | 187 | 190 | 196 | 204 |
| MSASS | 13 | 13 | 13 | 13 | 13 | 15 | 15 |
| Nursing | 54 | 66 | 70 | 77 | 87 | 82 | 74 |
|  |  |  |  |  |  |  |  |
| Total Faculty | 456 | 486 | 440 | 429 | 452 | 463 | 467 |

All numbers are for Board-approved, Case-paid faculty only at the rank of instructor and above.
For the School of Medicine, this number changed after the affiliation agreement went into effect during 2006.

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## Total Minority Faculty by School/College

| Faculty Comparison | 2005/06 <br> Minority | $\mathbf{2 0 0 6 / 0 7}$ <br> Minority | 2007/08 <br> Minority | 2008/09 <br> Minority | 2009/10 <br> Minority | 2010/11 <br> Minority | 2011/12 <br> Minority |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 25 | 25 | 25 | 26 | 30 | 33 | 33 |
| Dental Medicine | 17 | 19 | 19 | 20 | 20 | 18 | 16 |
| Engineering | 30 | 32 | 31 | 33 | 35 | 35 | 34 |
| Law | 5 | 4 | 4 | 3 | 2 | 2 | 3 |
| Management | 16 | 10 | 11 | 13 | 14 | 18 | 19 |
| Medicine | 137 | 152 | 142 | 143 | 143 | 143 | 149 |
| MSASS | 3 | 4 | 4 | 4 | 4 | 5 | 6 |
| Nursing | 5 | 7 | 10 | 9 | 12 | 11 | 12 |
|  |  |  |  |  |  |  |  |
| Total Minority Faculty | $\mathbf{2 3 8}$ | $\mathbf{2 4 6}$ | $\mathbf{2 4 6}$ | $\mathbf{2 5 1}$ | $\mathbf{2 6 0}$ | $\mathbf{2 6 5}$ | $\mathbf{2 7 2}$ |
| Underrepresented <br> Minority Total * | $\mathbf{7 0}$ | $\mathbf{7 2}$ | $\mathbf{6 5}$ | $\mathbf{6 4}$ | $\mathbf{7 0}$ | $\mathbf{7 2}$ | $\mathbf{7 3}$ |

* African Americans, Hispanic Americans, Native Americans, Alaska Natives, Hawaiian Natives, and natives of the U.S. Pacific Islands. Women are considered an underrepresented group in the STEM fields.

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African American Faculty by School/College

| Faculty Comparison | 2005/06 <br> Af-Amer | 2006/07 <br> Af-Amer | 2007/08 <br> Af-Amer | 2008/09 <br> Af-Amer | 2009/10 <br> Af-Amer | 2010/11 <br> Af-Amer | 2011/12 <br> Af-Amer |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 7 | 7 | 6 | 7 | 8 | 8 | 8 |
| Dental Medicine | 7 | 6 | 6 | 5 | 5 | 5 | 5 |
| Engineering | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| Law | 4 | 3 | 3 | 2 | 1 | 1 | 2 |
| Management | 2 | 0 | 0 | 1 | 1 | 3 | 3 |
| Medicine | 13 | 17 | 16 | 12 | 9 | 10 | 8 |
| MSASS | 3 | 4 | 4 | 4 | 4 | 4 | 5 |
| Nursing | 4 | 6 | 8 | 7 | 10 | 9 | 10 |
|  |  |  |  |  |  |  |  |
| Total Faculty | 41 | 44 | 45 | 39 | 39 | 41 | 42 |

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## African American Faculty by Gender \& Tenure Status

| African American Faculty | 2008/2009 |  |  | $2009 / 2010$ |  |  | 2010/2011 |  |  | 2011/2012 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Women | Men | Total | Women | Men | Total | Women | Men | Total | Women | Men |
|  | 4 | 10 | 14 | 5 | 9 | 14 | 5 | 9 | 14 | 6 | 9 |
| Total |  |  |  |  |  |  |  |  |  |  |  |
| Tenured | 8 | 6 | 14 | 8 | 5 | 13 | 9 | 5 | 14 | 8 | 6 |
| Tenure Track | 6 | 0 | 6 | 6 | 0 | 6 | 6 | 1 | 7 | 4 | 1 |
| Non Tenure Track | 4 | 2 | 6 | 5 | 1 | 6 | 5 | 2 | 7 | 6 | 2 |
| Not Applicable |  |  | 40 |  |  | 39 |  |  | 42 |  |  |
| Grand Total |  |  |  | 42 |  |  |  |  |  |  |  |
| $\%$ Tenure Stream | $55 \%$ | $89 \%$ |  | $54 \%$ | $93 \%$ |  | $56 \%$ | $82 \%$ |  | $58 \%$ | $83 \%$ |

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Asian Faculty by School/College

| Faculty Comparison | 2005/06 <br> Asian | 2006/07 <br> Asian | 2007/08 <br> Asian | 2008/09 <br> Asian | 2009/10 <br> Asian | 2010/11 <br> Asian | 2011/12 <br> Asian |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 14 | 15 | 15 | 15 | 17 | 18 | 18 |
| Dental Medicine | 8 | 11 | 11 | 12 | 12 | 10 | 10 |
| Engineering | 26 | 28 | 26 | 29 | 30 | 31 | 30 |
| Law | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Management | 12 | 9 | 10 | 11 | 12 | 14 | 14 |
| Medicine | 106 | 116 | 117 | 118 | 117 | 117 | 123 |
| MSASS | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Nursing | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
|  |  |  |  |  |  |  |  |
| Total Faculty | 168 | 181 | 181 | 187 | 190 | 193 | 199 |

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Asian Faculty by Gender \& Tenure Status

| Asian Faculty | $2008 / 2009$ |  |  | $2009 / 2010$ |  |  | 2010/2011 |  | 2011/2012 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Women | Men | Total | Women | Men | Total | Women | Men | Total | Women | Men |
| Total |  |  |  |  |  |  |  |  |  |  |  |
| Tenured | 13 | 43 | 56 | 15 | 45 | 60 | 17 | 51 | 68 | 17 | 55 |
| Tenure Track | 17 | 53 | 70 | 16 | 51 | 67 | 17 | 49 | 66 | 21 | 45 |
| Non Tenure Track | 11 | 28 | 39 | 14 | 27 | 41 | 13 | 25 | 38 | 14 | 25 |
| Not Applicable | 9 | 13 | 22 | 10 | 12 | 22 | 11 | 10 | 21 | 12 | 10 |
| Grand Total |  |  | 187 |  |  | 190 |  |  | 193 |  |  |
| \% Tenure Stream | $60 \%$ | $70 \%$ |  | $56 \%$ | $71 \%$ |  | $59 \%$ | $74 \%$ |  | $59 \%$ | $74 \%$ |

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Hispanic Faculty by School/College

| Faculty Comparison | 2005/06 <br> Hispanic | 2006/07 <br> Hispanic | 2007/08 <br> Hispanic | 2008/09 <br> Hispanic | 2009/10 <br> Hispanic | 2010/11 <br> Hispanic | 2011/12 <br> Hispanic |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arts and Sciences | 4 | 3 | 4 | 4 | 5 | 7 | 7 |
| Dental Medicine | 2 | 2 | 2 | 3 | 3 | 3 | 1 |
| Engineering | 2 | 2 | 2 | 2 | 3 | 2 | 2 |
| Law | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Management | 2 | 1 | 1 | 1 | 1 | 1 | 2 |
| Medicine | 16 | 16 | 7 | 11 | 15 | 14 | 16 |
| MSASS | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nursing | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
|  |  |  |  |  |  |  |  |
| Total Faculty | 26 | 24 | 17 | 22 | 28 | 28 | 28 |

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Hispanic Faculty by Gender \& Tenure Status

| Hispanic Faculty | $2008 / 2009$ |  |  | $2009 / 2010$ |  |  | $2010 / 2011$ |  | 2011/2012 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Women | Men | Total | Women | Men | Total | Women | Men | Total | Women | Men |
| Total |  |  |  |  |  |  |  |  |  |  |  |
| Tenured | 2 | 3 | 5 | 4 | 2 | 6 | 4 | 2 | 6 | 4 | 2 |
| Tenure Track | 4 | 7 | 11 | 3 | 11 | 14 | 4 | 10 | 14 | 4 | 9 |
| Non Tenure Track | 1 | 0 | 1 | 2 | 3 | 5 | 3 | 4 | 7 | 3 | 5 |
| Not Applicable | 2 | 3 | 5 | 1 | 2 | 3 | 0 | 1 | 1 | 1 | 0 |
| Grand Total |  |  | 22 |  |  | 28 |  |  | 28 |  |  |
| \%Tenure Stream | $67 \%$ | $77 \%$ |  | $70 \%$ | $72 \%$ |  | $73 \%$ | $71 \%$ |  | $67 \%$ | $69 \%$ |

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Native American Faculty by School/College

|  | $2005 / 06$ | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Faculty Comparison | Nat Amer | Nat Amer | Nat Amer | Nat Amer | Nat Amer | Nat Amer | Nat Amer |
| Arts and Sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dental Medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Engineering | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Law | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medicine | 2 | 3 | 2 | 2 | 2 | 2 | 2 |
| MSASS | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nursing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  |  |  |  |  |  |  |
| Total Faculty | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{3}$ |

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Native American Faculty by Gender \& Tenure Status

| Native American Faculty | 2008/2009 |  |  | 2009/2010 |  |  | 2000/2011 |  |  | 2011/2012 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  | Women | Men | Total | Women | Men | Total | Women | Men | Total | Women | Men |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |
| Tenured | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 |  |
| Tenure Track | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |  |
| Non Tenure Track | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| NotApplicable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Grand Total |  |  | 3 |  |  | 3 |  |  | 3 |  |  |  |
| $\%$ Tenure Stream | $--100 \%$ |  |  | $--100 \%$ |  | -- | $100 \%$ |  |  | -- | $100 \%$ |  |

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## Faculty by Gender, Ethnicity, and Rank: Professor

| Professor | 2006/07 |  | 2007/08 |  | 2008/09 |  | 2009/10 |  | 2010/11 |  | 2011/12 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| African American | 2 | 5 | 2 | 5 | 2 | 4 | 3 | 4 | 3 | 4 | 4 | 4 |
| Asian | 3 | 25 | 3 | 26 | 6 | 28 | 7 | 31 | 9 | 32 | 11 | 32 |
| Hispanic | 2 | 1 | 2 | 1 | 2 | 0 | 2 | 3 | 2 | 3 | 3 | 3 |
| White, non-Hispanic | 77 | 357 | 76 | 308 | 81 | 323 | 84 | 322 | 87 | 318 | 87 | 319 |
| Native American | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Unknown / not selfidentified | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Rows shaded in gray are underrepresented minority categories. These categories are African Americans, Hispanic Americans, Native Americans, Alaska Natives, Hawaiian Natives, and natives of the U.S. Pacific Islands. Women are considered an underrepresented group in the STEM fields.

## Advancing diversity through inclusive thinking, mindful learning and transformative dialogue

Faculty by Gender, Ethnicity, and Rank: Associate Professor

| Associate Professor | 2006/07 |  | 2007/08 |  | 2008/09 |  | 2009/10 |  | 2010/11 |  | 2011/12 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| African American | 4 | 7 | 6 | 8 | 4 | 7 | 4 | 5 | 4 | 6 | 4 | 6 |
| Asian | 11 | 27 | 12 | 30 | 11 | 33 | 13 | 31 | 13 | 37 | 14 | 41 |
| Hispanic | 2 | 5 | 0 | 4 | 0 | 4 | 2 | 4 | 3 | 4 | 2 | 3 |
| White, non-Hispanic | 109 | 159 | 97 | 147 | 95 | 139 | 93 | 134 | 97 | 140 | 100 | 148 |
| Native American | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Unknown / not selfidentified | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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## Faculty by Gender, Ethnicity, and Rank: Assistant Professor

| Assistant Professor | 2006/07 |  | 2007/08 |  | 2008/09 |  | 2009/10 |  | 2010/11 |  | 2011/12 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| African American | 10 | 8 | 12 | 5 | 12 | 5 | 12 | 5 | 13 | 5 | 10 | 6 |
| Asian | 32 | 67 | 23 | 67 | 24 | 63 | 25 | 61 | 25 | 56 | 27 | 52 |
| Hispanic | 4 | 7 | 4 | 4 | 5 | 6 | 5 | 9 | 6 | 9 | 6 | 10 |
| White, non-Hispanic | 150 | 162 | 129 | 136 | 119 | 125 | 118 | 114 | 121 | 117 | 122 | 115 |
| Native American | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Unknown / not selfidentified | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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Faculty by Gender, Ethnicity, and Rank: Instructor

| Instructor | 2006/07 |  | 2007/08 |  | 2008/09 |  | 2009/10 |  | 2010/11 |  | 2011/12 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| African American | 7 | 1 | 6 | 1 | 4 | 1 | 5 | 1 | 5 | 2 | 6 | 2 |
| Asian | 7 | 9 | 11 | 9 | 9 | 13 | 10 | 12 | 11 | 10 | 12 | 10 |
| Hispanic | 1 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 0 | 1 | 1 | 0 |
| White, non-Hispanic | 64 | 32 | 55 | 39 | 62 | 40 | 68 | 26 | 69 | 38 | 58 | 36 |
| Native American | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown / not selfidentified | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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## Some Specific Faculty Diversity Initiatives

1. Preparing future faculty.
2. Hiring to achieve critical mass.
3. Joining the PhD Project.
4. Becoming institutional host for the AUMF.
5. Expanding outreach to more diverse networks.

## Questions/Answers/Discussion

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Slide \#4
Total Faculty by School/College

| Faculty Comparison | $\mathbf{2 0 0 5 / 0 6}$ <br> Faculty | $\mathbf{2 0 0 6 / 0 7}$ <br> Faculty | $\mathbf{2 0 0 7 / 0 8}$ <br> Faculty | $\mathbf{2 0 0 8 / 0 9}$ <br> Faculty | $\mathbf{2 0 0 9 / \mathbf { 1 0 }}$ <br> Faculty | $\mathbf{2 0 1 0 / \mathbf { 1 1 }}$ <br> Faculty | $\mathbf{2 0 1 1 / \mathbf { 1 2 }}$ <br> Faculty |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 220 | 219 | 222 | 229 | 241 | 255 | $\mathbf{2 6 1}$ |
| Dental Medicine | 66 | 68 | 71 | 73 | 70 | 67 | 65 |
| Engineering | 117 | 115 | 110 | 108 | 107 | 111 | 114 |
| Law | 48 | 51 | 51 | 49 | 47 | 43 | 45 |
| Management | 74 | 60 | 61 | 58 | 59 | 66 | 69 |
| Medicine | 748 | 756 | 621 | 585 | 578 | 577 | 593 |
| MSASS | 25 | 26 | 27 | 26 | 25 | 26 | 28 |
| Nursing | 59 | 71 | 75 | 81 | 92 | 87 | 82 |
|  |  |  |  |  |  |  |  |
| Total Faculty | $\mathbf{1 , 3 5 7}$ | $\mathbf{1 , 3 6 6}$ | $\mathbf{1 , 2 3 8}$ | $\mathbf{1 , 2 0 9}$ | $\mathbf{1 , 2 1 9}$ | $\mathbf{1 , 2 3 2}$ | $\mathbf{1 , 2 5 7}$ |

All numbers are for Board-approved, Case-paid faculty only at the rank of instructor and above.
For the School of Medicine, this number changed after the affiliation agreement went into effect during 2006.

Slide \#5
Faculty by Gender and School/College

| Faculty Comparison | 2005/06 <br> Women | $\mathbf{2 0 0 6 / 0 7}$ <br> Women | $\mathbf{2 0 0 7 / 0 8}$ <br> Women | $\mathbf{2 0 0 8 / 0 9}$ <br> Women | $\mathbf{2 0 0 9 / 1 0}$ <br> Women | 2010/11 <br> Women | 2011/12 <br> Women |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 73 | 81 | 84 | 85 | 96 | 104 | 107 |
| Dental Medicine | 17 | 18 | 21 | 23 | 23 | 22 | 21 |
| Engineering | 12 | 13 | 12 | 14 | 13 | 14 | 14 |
| Law | 12 | 16 | 18 | 19 | 19 | 17 | 17 |
| Management | 16 | 14 | 13 | 11 | 11 | 13 | 15 |
| Medicine | 259 | 265 | 209 | 187 | 190 | 196 | 204 |
| MSASS | 13 | 13 | 13 | 13 | 13 | 15 | 15 |
| Nursing | 54 | 66 | 70 | 77 | 87 | 82 | 74 |
|  |  |  |  |  |  |  |  |
| Total Faculty | $\mathbf{4 5 6}$ | $\mathbf{4 8 6}$ | $\mathbf{4 4 0}$ | $\mathbf{4 2 9}$ | $\mathbf{4 5 2}$ | $\mathbf{4 6 3}$ | $\mathbf{4 6 7}$ |

All numbers are for Board-approved, Case-paid faculty only at the rank of instructor and above.
For the School of Medicine, this number changed after the affiliation agreement went into effect during 2006.

Slide \#6
Total Minority Faculty by School/College

| Faculty Comparison | $\mathbf{2 0 0 5 / 0 6}$ <br> Minority | $\mathbf{2 0 0 6 / 0 7}$ <br> Minority | $\mathbf{2 0 0 7 / 0 8}$ <br> Minority | $\mathbf{2 0 0 8 / 0 9}$ <br> Minority | 2009/10 <br> Minority | 2010/11 <br> Minority | 2011/12 <br> Minority |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 25 | 25 | 25 | 26 | 30 | 33 | 33 |
| Dental Medicine | 17 | 19 | 19 | 20 | 20 | 18 | 16 |
| Engineering | 30 | 32 | 31 | 33 | 35 | 35 | 34 |
| Law | 5 | 4 | 4 | 3 | 2 | 2 | 3 |
| Management | 16 | 10 | 11 | 13 | 14 | 18 | 19 |
| Medicine | 137 | 152 | 142 | 143 | 143 | 143 | 149 |
| MSASS | 3 | 4 | 4 | 4 | 4 | 5 | 6 |
| Nursing | 5 | 7 | 10 | 9 | 12 | 11 | 12 |
|  |  |  |  |  |  |  |  |
| Total Minority Faculty | $\mathbf{2 3 8}$ | $\mathbf{2 4 6}$ | $\mathbf{2 4 6}$ | $\mathbf{2 5 1}$ | $\mathbf{2 6 0}$ | $\mathbf{2 6 5}$ | $\mathbf{2 7 2}$ |
| Underrepresented <br> Minority Total * | $\mathbf{7 0}$ | $\mathbf{7 2}$ | $\mathbf{6 5}$ | $\mathbf{6 4}$ | $\mathbf{7 0}$ | $\mathbf{7 2}$ | $\mathbf{7 3}$ |

* African Americans, Hispanic Americans, Native Americans, Alaska Natives, Hawaiian Natives, and natives of the U.S. Pacific Islands. Women are considered an underrepresented group in the STEM fields.

Slide \#7
African American Faculty by School/College

| Faculty Comparison | 2005/06 <br> Af-Amer | 2006/07 <br> Af-Amer | 2007/08 <br> Af-Amer | 2008/09 <br> Af-Amer | 2009/10 <br> Af-Amer | 2010/11 <br> Af-Amer | 2011/12 <br> Af-Amer |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 7 | 7 | 6 | 7 | 8 | 8 | 8 |
| Dental Medicine | 7 | 6 | 6 | 5 | 5 | 5 | 5 |
| Engineering | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| Law | 4 | 3 | 3 | 2 | 1 | 1 | 2 |
| Management | 2 | 0 | 0 | 1 | 1 | 3 | 3 |
| Medicine | 13 | 17 | 16 | 12 | 9 | 10 | 8 |
| MSASS | 3 | 4 | 4 | 4 | 4 | 4 | 5 |
| Nursing | 4 | 6 | 8 | 7 | 10 | 9 | 10 |
|  |  |  |  |  |  |  |  |
| Total Faculty | $\mathbf{4 1}$ | $\mathbf{4 4}$ | $\mathbf{4 5}$ | $\mathbf{3 9}$ | $\mathbf{3 9}$ | $\mathbf{4 1}$ | $\mathbf{4 2}$ |

Slide \#9
Asian Faculty by School/College

| Faculty Comparison | 2005/06 <br> Asian | 2006/07 <br> Asian | 2007/08 <br> Asian | 2008/09 <br> Asian | 2009/10 <br> Asian | 2010/11 <br> Asian | 2011/12 <br> Asian |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 14 | 15 | 15 | 15 | 17 | 18 | 18 |
| Dental Medicine | 8 | 11 | 11 | 12 | 12 | 10 | 10 |
| Engineering | 26 | 28 | 26 | 29 | 30 | 31 | 30 |
| Law | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Management | 12 | 9 | 10 | 11 | 12 | 14 | 14 |
| Medicine | 106 | 116 | 117 | 118 | 117 | 117 | 123 |
| MSASS | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Nursing | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
|  |  |  |  |  |  |  |  |


| Total Faculty | 168 | 181 | 181 | 187 | 190 | 193 | 199 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Slide \#11
Hispanic Faculty by School/College

| Faculty Comparison | 2005/06 <br> Hispanic | 2006/07 <br> Hispanic | 2007/08 <br> Hispanic | 2008/09 <br> Hispanic | $2009 / 10$ <br> Hispanic | 2010/11 <br> Hispanic | 2011/12 <br> Hispanic |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arts and Sciences | 4 | 3 | 4 | 4 | 5 | 7 | 7 |
| Dental Medicine | 2 | 2 | 2 | 3 | 3 | 3 | 1 |
| Engineering | 2 | 2 | 2 | 2 | 3 | 2 | 2 |
| Law | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Management | 2 | 1 | 1 | 1 | 1 | 1 | 2 |
| Medicine | 16 | 16 | 7 | 11 | 15 | 14 | 16 |
| MSASS | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nursing | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
|  |  |  |  |  |  |  |  |
| Total Faculty | 26 | 24 | 17 | 22 | 28 | 28 | 28 |

Slide \#13
Native American Faculty by School/College

| Faculty Comparison | 2005/06 <br> Nat Amer | 2006/07 <br> Nat Amer | 2007/08 <br> Nat Amer | 2008/09 <br> Nat Amer | 2009/10 <br> Nat Amer | 2010/11 <br> Nat Amer | 2011/12 <br> Nat Amer |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Arts and Sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dental Medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Engineering | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Law | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medicine | 2 | 3 | 2 | 2 | 2 | 2 | 2 |
| MSASS | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nursing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  |  |  |  |  |  |  |
| Total Faculty | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{3}$ |


[^0]:    墨RINT / GEAVE FEEDBACK / 悉HARE

[^1]:    * A side by side program is composed of existing elements of ongoing programs provided by faculty usually engaged in these efforts. The existing program is to be supplemented by integrative experience designed to make the joint character of the program explicit.

