FACULTY MEETING - CLA

May 5, 2017
HALL OF SCIENCES 4

AGENDA

CALL TO ORDER: 3:15 p.m. — Chris Taylor

APPROVAL OF MINUTES

March 17	Jessica Lakin ---------- pp. 3 - 8
April 7	Jessica Lakin ---------- pp. 9 -13

DEAN'S UPDATES — Chris Taylor

ENCOMIUMS FOR RETIRING FACULTY

ACTION ITEMS:

1. Resolution on the Conferral of Degrees	Dan Ostin ---------- p.14
2. New Minor: Statistics	Jinee Lokaneeta ---------- pp. 15 - 21
3. New Minor: Data Science	Jinee Lokaneeta ---------- pp. 21 - 29
4. Policy on Special Minors	Jinee Lokaneeta ---------- p. 29
5. DSEM Policy for Transfer Students	Jinee Lokaneeta ---------- pp. 29 - 30

REPORTS:

Curricular Report	Jinee Lokaneeta---------- pp. 15 -34
Committee on Faculty	Maria Masucci
Enrollment Management	Bob Massa
Advancement Report	Ken Alexo ---------- pp. 35 -37
Library Report	Kathy Juliano ---------- pp. 38 - 39
Assessment Committee Report	Alan Rosan ---------- pp. 40 - 43

FOR DISCUSSION

OLD BUSINESS/
NEW BUSINESS

ANNOUNCEMENTS:

Art and Science Update	Jessica Lakin
Instructional Technology	Shawn Spaventa ---------- p. 44
Drew Review	Jared Sutton ---------- p. 45
Prestigious Scholarship Deadlines	Steve Dunaway ---------- p. 46
Art Opening	Michael Peglau ---------- p. 47

ADJOURNMENT

ANNOUNCEMENTS AND CONGRATULATIONS

Christopher Andrews: for authoring May's guest post - "The End of Work (or More Work)? - for *Consume This!* (https://asaconsumers.wordpress.com/), the official blog of the Consumers & Consumption section of the American Sociological Association, writing about research on self-checkout lanes and whether self-service technology is in fact eliminating jobs as many predict.

Lisa Brenner: for presenting at the Philadelphia Theatre Research Symposium on New Plays and New Play Development and for participating on the panel "Case Studies in New Development" talking about Drew's collaboration with Tectonic Theater Project for this year's senior capstone production of "A Metamorphosis" and next year's NY Theatre semester.

Jason Karolak: for his solo exhibition *Slow Talkers* at Devening Projects in Chicago, which runs through May 6th. The exhibition received two reviews: Kelly Reaves, "Eclectic, Electric Neural Nets," *New City*, April 21, 2017; Tom Pekovitch, "Jason Karolak at Devening Projects," *Delicious Line*, April 24, 2017.

Elizabeth Kimball: for presenting "The Affordances of Rhetoric for Historical Sociolinguistics," at the Historical Sociolinguistics Conference, April 7, 2017, at NYU.

Bjorg Larson: for participating as one of several authors on a recently published article in the Journal of Biomedical Optics: "Evaluation of breast tissue with confocal strip-mosaicking microscopy: a test approach emulating pathology-like examination." (J Biomed Opt. 2017 Mar 1;22(3):34002.)

Patrick McGuinn: for interviewing State Board of Education members from across the country on March 19 in DC for the CPRE Knowledge Hub video series on state school reform efforts; for participating in the American Enterprise Institute's "Future of American Education" Working Group in DC on May 4 & 5; and for being invited to speak at the Education Writers Association of America's national conference in DC on June 1.

Raul Rosales: for presenting the paper "Reading Mariel Writing as Latinx Literature" and for chairing the subject area "Latin Americans and Latinos: Identity Issues and Cultural Stereotypes" at the 2017 Popular Culture Association/American Culture Association Annual Conference in San Diego, CA, April 12-15.

Trevor Weston: for the March 24th premiere by the American Composers Orchestra of ***Flying Fish***, a piece co-commissioned by Carnegie Hall. According to the New York Times, the work demonstrated, "…episodes of hurtling energy," with "wondrous aquatic feats." Also for presenting two lectures on his compositions in April to Carnegie Mellon University and the Massachusetts Institute of Technology and for the April 22, Harvard University's Choruses, Boston Modern Orchestra Project and the Boston Children's Chorus performance of ***Griot Legacies*** in the famous Sanders Theatre, Memorial Hall where he participated in a pre-concert talk with Dr. Andrew Clark, the Director of Choral activities at Harvard.

Gamin Bartle, Louis Hamilton (organizer), Emily Hill, Amy Koritz, Jesse Mann, John Muccigrosso, Kim Rhodes, and Hannah Wells: for hosting the spring meeting of the New Jersey Digital Humanities Consortium on April 21. In attendance were Drew faculty, students, and staff, along with representatives from Princeton, Ramapo, Rutgers, New Brunswick, NJIT, Seton Hall, and Montclair State.

Drew University
College of Liberal Arts
Minutes of Faculty Meeting
03/17/17

Present: Sarah Abramowitz, Erik Anderson, Christopher Andrews, Brianne Barker, Jason Bishop, Lisa Brenner, Barry Burd, Adam Cassano, Chris Ceraso, Jill Cermele, Graham A. Cousens, Stephen Dunaway, Wyatt Evans, Jonathan Golden, Seth Harris, Emily Hill, Hilary Kalagher, Jason Karolak, Steve Kass, Joshua Kavaloski, Caitlin Killian, Elizabeth Kimball, Roger Knowles, Wendy Kolmar, Amy Koritz, Minjoon Kouh, Jessica Lakin, Juliette Lantz, Bjorg Larson, Seung-Kee Lee, Debra Liebowitz, Jinee Lokaneeta, Maria Masucci, Rosemary McLaughlin, Christopher M. Medvecky, Joanna Miller, Scott Morgan, John Muccigrosso, Philip Mundo, Robert Murawski, Emanuele Occhipinti, Mary-Ann Pearsall, Karen Pechilis, Marie-Pascale Pieretti, Raul Rosales, Alan Rosan, Rebecca Soderholm, Sharon Sundue, Carol Ueland, Hannah Wells, Tammy Windfelder, Carlos Yordan

Others Present: Stacy Fischer, Jody Caldwell, Obiri Addo

The meeting was called to order at 3:18pm by Dean Chris Taylor.

Discussion:

Academic Structure - Debra Liebowitz provided an update on the academic structure conversations that have been happening, and facilitated a conversation about people's thoughts about moving to a provost model.

Deb noted that although it is clear that we are moving to a provost model, what that will look like is still not determined; Deb used the term "provost model" because it's not clear that the provost necessarily has to be a separate individual. We are already down in administrative FTE with the combination of the CSGS and CLA Dean positions and the retirement of the Associate Dean in CSGS. Taking this opportunity to think about academic structure is very important; we can ensure an academic structure that supports the important activities that are happening in the most efficient way.

A provost model will allow for a unified academic voice to be represented in the administrative structure, and remove these responsibilities from the President's workload. The current academic structure is diffuse and expensive, and some academic units are tied to a school when they are really university functions (e.g., Academic Services). The goals of this process are to reduce expenses, rationalize processes, and reduce redundancy.

Sarah Abramowitz asked how the final decisions about a new academic structure will be made. Deb replied that the five academic leaders and the President are going to make the macro-level decision. But once there is a preliminary structure in place, the real work will begin because we will have to articulate the processes that will allow for the most efficient functioning of this central academic voice. All faculty governance bodies will have to be involved in those conversations. Creating a macro-structure will just be the beginning of this transformation.

A comment was made about how disconcerting it is to have a faculty search underway and then be told there is no funding for that position. Deb agreed and indicated that that is something that might be able to be addressed with centralized planning and budgeting processes.

Wendy Kolmar reiterated the importance of having a strong, unified academic voice on campus. She asked how person who might be serving in a provost capacity would be chosen, and what involvement would there be from the faculties? She indicated the need to have someone who will not just fix processes, but who will invest deeply in Drew and understanding our educational commitments.

Deb indicated that we've tried to keep specific people out of the structural conversations that have happened so far – you can't build a structure around people. She also indicated that it's not clear how we will decide who will serve in these new and/or revised roles.

Karen Pechilis indicated that principles of shared governance must be at the forefront of any structural conversations.

Another faculty member indicated that it would be a good idea to think carefully about the use of search firms in this process. It's getting a little tiresome to spend lot of money on search firms who bring us individuals who are clearly using Drew as a stepping stone and who clearly don't "get" Drew.

Julie Lantz asked about what other positions on campus would be parallel with a provost? Deb replied that the Provost would be the Chief Academic Officer, and is therefore comparable to the Chief Financial Officer. However, there would still be a Presidential Cabinet that includes all the Vice-Presidents from across the University. Jessica Lakin added that there has been no conversation about brings Campus Life and Student Affairs into a Provost's office, which is a structure that exists at some other institutions.

John Muccigrosso indicated that it would be nice to see the IPEDS data on administrative costs over time, and broken down into subcategories. He acknowledged that most schools have a provost (even schools our size), but part of our inefficiency lies in the complexity of our academic structure for our size. He suggested that we consider a Provost/Dean combination position. John also strongly advocated for CSGS programs to grow, and he's concerned that the opposite might be happening by dismantling the independent administrative structure for the CSGS. He noted that we have to move as fast as possible on these programs, and it would be good if they were not all based in the humanities.

Deb agreed, and reported that processes are underway to develop some new CSGS programs that will not be built on the back of a single person; the goal is to integrate these programs fully with CLA and Theo.

Wyatt Evans agreed, and said that if we are taking something apart, it's important to have a plan for how to put it back together again. He also hoped that the academic structure conversations

would take into account hidden administrative costs (e.g., the increase in time that faculty have to devote to doing things that could be handled by skilled administrative assistants).

Deb agreed, and concluded the conversation.

General Education Description – Lisa Brenner reviewed the charge of the new assessment committee. It is an ad hoc committee now, but the committee recommends that it become a standing committee of the College and that it have divisional representation. The committee doesn't have anything to do with resource allocation; student learning assessment is for the stakeholders – what is working and what isn't working?

The committee has been working on a vision statement for our general education program in order to think about the assessment of general education from the top down rather than the bottom up (as we did last year during the Middle States process). In other words, we should know what the vision of our general education is, which can then guide additional conversations about any revisions that need to happen with the articulated student learning outcomes. Lisa noted that this vision statement could be presented in the catalog to both an internal audience and to prospective students and families. Revisions to the student learning outcomes will follow once there is agreement about the general visionary idea and the way to describe the components of the program. She asked for feedback about the first visionary paragraph and for the categories that follow that description.

There was much conversation about the first descriptive paragraph and how it differs from what is currently in the catalog. The draft that is now being circulated isn't too different, but it elaborates on several ideas and cleans up the current language. There was some concern expressed that nothing in this paragraph seems particularly distinctive. The general consensus was that this is a good description, but the language is very academic and the description is long. It might be important to have an internal visionary statement that we use to help us revise and create student learning outcomes, and a separate statement that is in the catalog and used for marketing purposes. One person also noted that the paragraph as drafted now explicitly ties experiences at Drew to New York City, and there is nothing in the general education program that does that. Some members of the faculty still expressed confusion about how this would be helpful to us as we draft/revise student learning outcomes. Specific feedback was solicited from those who had language changes/recommendations.

With regard to the categories that were articulated, Lisa noted that committee members researched the general education programs at all of our peer and aspirant institutions and that a lot of those schools used broad categories like the ones articulated in the circulated document (rather than long lists of specific requirements). The committee is proposing that we follow this model, and use the categories as articulated in this document.

Adam Cassano asked about the ordering of the category creation. Were descriptions written to try to group requirements together, or were things grouped and then descriptions drafted? Lisa replied that it was the latter, but that the categories still seemed to work to the committee. She also noted that the proposed categories are not inconsistent with those being used at other schools. Sharon Sundue noted that this is exactly the way that she communicates about the general education program because it tells a more compelling story to potential students than a long list of individual requirements. The current Associate Deans agreed and noted that they do this as well.

There was some conversation about the ways in which this was going to help with assessment of general education. Several faculty members asked whether there would be student learning outcomes generated for the overall categories rather than the individual kinds of requirements, but as the committee is not at this point yet, it isn't clear how this would happen. Others noted that it is important to understand how students are fulfilling general education requirements. Alan Rosan concluded this conversation by noting that we would be able to articulate the specific student learning outcomes for general education from these categories (once there is agreement about the categories), but that it is first important to see the big picture. It remains to be determined whether student learning outcomes are articulated at the category or requirement level. One faculty member noted that this large vision for the general education program would be very helpful when advising first-year students, and others agreed.

Faculty Regulations – Chris Taylor noted that we would begin the discussion of this draft of the faculty regulations by focusing on parts I-V. He hopes this can be further discussed at the next division meetings and brought forward for a vote at the next faculty meeting. Josh Kavaloski facilitated the conversation about specific feedback.

Many faculty members noted that when we first approved the INTO program, it was clear that we wanted the faculty to be integrated and to be full members of the College faculty. This document continues to not allow those individuals to vote, although they can attend meetings. Is this appropriate? Others noted that there is a great deal of uncertainty about the status of these faculty members (e.g., their hiring and review, promotion, workload, compensation, etc.). While we all want to be inclusive, we don't have control over some of the policies that affect them; therefore, it may not be appropriate for them to have voting rights. Regardless of the actual decision, clarity needs to be ensured throughout the document (e.g., do faculty only teach matriculated students).

Other issues that were noted:

- The bylaws are cited, but do not appear to be available online. Chris Taylor noted that he would investigate this issue.
- A quorum should be counted by checking people in the room, not just looking at the attendance roster. And a quorum should be voting members of the faculty, not voting members of the faculty meeting (III.5.b.i).

- It should be the case that the agenda for the faculty meeting, and all associated materials, comes out at least 72 hours in advance. It should be extraordinary to have something that comes to the faculty meeting without previous discussion at division meetings.
- There was a discussion about whether committee votes should be public. Some faculty members noted this is standard parliamentary procedure and should be available in the interests of transparency, but Chris Taylor noted that this could dissuade people from running for election. A straw poll of faculty members who were still in attendance indicated that votes should be kept in the Dean's Office, but do not need to be reported publicly.
- Is what is stated in IV.1.c really the primary function of a committee? And shouldn't all members of a committee be voting members of the faculty (IV.2.f), not just chairs?
- A question was raised as to why all committees are listed here, rather than just CLA committees? We don't have oversight or control of committees that are at the University level, so it is odd to include those in the CLA faculty regulations.
- It would be nice to see the principles used to seat committees somewhere in this document.

The meeting was adjourned at 5:32pm.

Jessica Lakin

Drew University
College of Liberal Arts
Minutes of Faculty Meeting
04/07/2017

Present: Sarah Abramowitz, Erik Anderson, Lee Arnold, Di Bai, Brianne Barker, Susan Beddes, Jason Bishop, Marc Boglioli, Lisa Brenner, Barry Burd, Monica Cantero-Exojo, James Carter, Adam Cassano, Chris Ceraso, Jill Cermele, Miao Chi, Patrick Dolan, Stephen Dunaway, Wyatt Evans, Jonathan Golden, Louis Hamilton, Sandra Jamieson, George-Harold Jennings, Hilary Kalagher, Jason Karolak, Steve Kass, Joshua Kavaloski, Marguerite Keane, Caitlin Killian, Roger Knowles, Wendy Kolmar, Minjoon Kouh, Margaret Kuntz, Jessica Lakin, Juliette Lantz, Dan LaPenta, Neil Levi, Jinee Lokaneeta, Maria Masucci, Rosemary McLaughlin, Christopher M. Medvecky, Joanna Miller, Sangay Mishra, Scott Morgan, John Muccigrosso, Philip Mundo, Robert Murawski, Emanuele Occhipinti, Karen Pechilis, Michael Peglau, Muriel Placet-Kouassi, Jonathan Reader, Judy Redling, Kimberly Rhodes, Raul Rosales, Alan Rosan, Jonathan Rose, Susan Rosenbloom, Maliha Safri, Paris Scarano, Rebecca Soderholm, Leslie Sprout, Sharon Sundue, Carol Ueland, Hannah Wells, Carlos Yordan

Others Present: Mary Ann Baenninger, Stacy Fischer, Colby McCarthy, Alex McClung, Frank Merckx, Kira Poplowski, Jim Skiff, Marti Winer, Margery Ashmun, Jody Caldwell, Jennifer Heise, Kathy Juliano, Rick Mikulski, Brian Shetler, Obiri Addo, Shawn Spaventa

The meeting was called to order at 3:16pm

Approval of Minutes: The minutes of the March 3rd meeting were approved with a minor edit: the discussion of the revision to the Film Studies minor did not occur in conjunction with the development of the Media and Communications major. It was decided that the minutes of the March 17th extra faculty meeting would be approved at the next faculty meeting pending the addition of more detail about the general education assessment conversation.

Dean's Updates: Chris Taylor announced that Admissions is in the midst of its critical yield season and is preparing for "Make Your Day" visits on Mondays and Fridays that often involve class visits. Chris asked faculty members to advise Karen Blount in Admissions of any changes to their class schedules on Mondays and Fridays through the end of the term so prospective students aren't brought to empty classrooms.

Chris also reported that the Admissions Advisory Committee has shared with Divisions the names of students who show a high likelihood of matriculating at Drew. Admissions is requesting that faculty members reach out to make connections with these students to assist in yield efforts or alert Bob Massa with any conflicts so alternate plans may be made.

Action Items:

1. COF Division III Election: Josh Kavaloski reported that the Committee on Faculty needs a faculty representative from Division III to serve for a 2-year period beginning Fall 2017. Monica Cantero was nominated. With no further names put forth, Chris stated elections will be held electronically within one week.

2. Secs. I-VI of the Faculty Regulations: Chris Taylor asked for a final discussion of Sections I-VI of the proposed regulations, stating that the next step will be to vote on each section separately. Jill Cermele extended thanks to all those who contributed feedback and clarified language on page 46 - "The faculty of the CLA consists of all current employees of the University who have been duly appointed by the Dean and who have full time or part-time teaching responsible for students, the majority of whom are matriculated in the CLA." Rosemary McLaughlin reiterated Chris Taylor's statement that there would be no vote at the meeting, merely discussion. Voting would happen electronically on Monday. She urged faculty members to weigh their concerns against the need to make decisions and put faculty regulations in place.

Steve Kass questioned the ways in which these regulations differ from the current approved version; he's concerned that people can't see what has changed and therefore don't know what to comment on; e.g., students have been removed from some key committees, but he didn't realize this was a change until he went back to the current regulations and attempted to track the changes. Rosemary reminded everyone that there have been multiple opportunities throughout the fall to discuss revisions, and noted that the most recent changes have been highlighted in a different color here so that people can see what has changed since the last draft was circulated.

Faculty members continued to discuss Section I – Composition of the Faculty, and Section II – Faculty Governance. Issues raised and discussed were as follows:

- There was clarification about the fact that the University By-Laws dictate that each school organizes its own faculty regulations.
- Should students serve on major committees (e.g., Dean's Council)? It was noted that there has been no conversation about this theoretical issue.
- Should appointments to committees be subject to the approval of the faculty?
- Some noted a desire to see shared governance as a greater focus, but others were concerned that changing language quoted from the University By-Laws did not make sense.

There was a general sense from some people that they would like more time to review the draft regulations. After some further conversation, Chris Taylor pulled the discussion and urged colleagues to use the online mechanism for comments. He said only five people had made use of the online forum. John Muccigrosso asked if only one Roman Numeral could be addressed at a time and was there a way to see where changes have been made from the original document? Jessica Lakin noted that these sections still exist as approved and can be viewed online. Sandra Jamieson indicated that she thinks discussion with colleagues at a full faculty meeting is very important.

Reports:

Curricular Report: No questions were posed to Jinee Lokaneeta regarding the Curricular Report.

Enrollment Management: Bob Massa shared that, to date, there are 125 deposits. These 125 students have higher SAT scores than those admitted last year. He shared his optimism for the admission season as campus visits are up 40% and the yield from these visits has proven to be significantly higher. He stated there have been many more interviews and thanked faculty members for their participation in Admitted Student Day. Bob said there would be another on April 23, with 133 students with reservations versus 104 at this same time last year. He stressed the importance of increasing yield with fewer applications.

Bob said the Class of 2020 was offered experiential learning fellowships (ELF) that they can start to use in the summer of 2017 for research, study abroad, and internships. Instructions for how students will access the ELF funding is in the packet on page 65. Bob clarified that the London TREC was left off the list for ELF funding because it's a semester long program paid for with Drew tuition and financial aid. Bob asked the faculty to direct students to Financial Aid with any questions regarding the ELF.

In closing, Bob expressed his thanks to all the faculty members who participated in the letter writing campaign.

Civic Engagement Faculty Advisory Board: Susan Rosenbloom thanked the 14 faculty members who taught Community Based Learning classes to almost 200 students. She reported that 35,000 community service hours were performed by Drew students in AY 2016.

INTO: Sharon Sundue shared that the INTO enrollments have more than doubled and applicants are more diverse. While applications from China are lower, they have increased enrollments from Southeast and North Asia, and particularly from Korea, Brazil, Russia, South Africa, and Kenya (where Allan Dawson has been doing some recruiting). Sharon stated that the discount rate for the Pathways students is about 20% and said 46 students are finishing the pathway this spring and all but two have completed the matriculation form for the fall. Sharon asked faculty members to reach out to Judy Redling for assistance with students needing academic coaching.

Library Report: There were no questions for Kathy Juliano regarding her report. Debra Liebowitz thanked Kathy for taking over on an interim basis for Chris Anderson.

A half hour extension to the Faculty Meeting was approved.

Conversation with the President: President MaryAnn Baenninger wants to share with the faculty some data to support the effectiveness of the short-term strategic plan for the University, SHINE. She reviewed data from the past decade showing that there is now: growing undergraduate enrollment, increasing selectivity, increasing retention and diversity, increasing net tuition revenue, increasing faculty salaries, and dramatically more satisfaction from students

with the food quality on campus. She also reported increases in giving to the University, although there is still a need to further increase unrestricted giving.

She thanked the faculty for its part in these successes, and reported that we are now turning to plans to realize efficiencies that will result in cost savings – a restructuring of the academic administration, a tighter management of capital expenditures, a thorough analysis of benefits (particularly management of significant increases in the cost of healthcare), realized savings and opportunities for redeployments from the voluntary retirement program, and an analysis of University-owned vacant residential properties and lots. All of these initiatives are intentionally designed not to affect campus life, student affairs, and the academic experience. Information about all of these topics can only be shared more broadly once the VRP is finalized in mid-July, so she encouraged all faculty and staff members to stay connected over the summer.

Several questions were raised. One person wondered whether the yield data will impact our score in US News and World Report. In response, Bob Massa noted that it would eventually, but the bigger issues there are that it is going to take some time for us to recover on our graduation and retention rates because they are trailing indicators. Another person asked whether some of the improvements in metrics that were noted were simply a result of picking low-hanging fruit, and questioned whether further increases will be significantly more difficult. President Baenninger agreed that there was some of that, but that we will have to continue investing in the right areas to realize additional gains. Others queried the financial details. One person noted that our discount rate is high, but so is that of our peers and aspirants – why are we struggling while they aren't? The President noted that we aren't funding our high discount rate, which is why there is a need to bring in more unrestricted dollars to the annual fund. The final question concerned the model that leads us to no longer running an annual deficit – what are the biggest factors that allow that to happen? President Baenninger noted that it is certainly increases in enrollment, but there is also a significant reduction in debt in AY19.

The faculty extended its thanks to the President for her presentation.

ANNOUNCEMENTS:

Instructional Technology Update: Deb Liebowitz thanked Sean Spaventa for taking over for Gamin Bartle on an interim basis. The faculty recognized the contributions of both Gamin and Chris Anderson.
Faculty Research Series: Deb Liebowitz noted that the information for Rita Keane's presentation can be found on page 35.
Compline/Operas, Musicals and Spirituals: Jason Bishop invited faculty members to Compline at Drew – an opportunity for quiet time in the Craig Chapel – and extended an invitation to "Operas, Musicals & Spirituals" on April 22.
Civic Engagement Awards and Community Action Week: Chris Taylor directed faculty members to read pages 38-39 for Civic Engagement announcements.
Poetic Histories Symposium and Bang on a Can Performance: Leslie Sprout noted two flyers on pages 40 and 41 that highlight events presented by the Andrew Mellon Arts and the Common Good grants.
Title IX Brochure and Events: See pages 42-44

Art Opening: Michael Peglau invited everyone to the Patty Cateura exhibition curated by Kim Rhodes.

The meeting was adjourned at 5:15pm.

Minutes respectfully submitted by Trish Turvey

Resolution on the Conferral of Degrees

Be it resolved that the Faculty of the College of Liberal Arts recommends to the President and to the Board of Trustees of Drew University the conferral of degrees in course upon all students who have successfully completed their courses of study, and who have met all of the requirements for the degree of Bachelor of Arts, as certified by the Registrar, and who have also met their financial obligations to the University, at the one hundred and forty-ninth annual Commencement Ceremony of Drew University on Saturday, May 13, 2017.

Curricular Report

April 2017

For Action:

- **Statistics Minor**
- **Data Science Minor**
- **Special Minor**
- **DSEM Policy for Transfer Students**

For Information:

New Courses:

- **STAT 120/Statistical Computing in R**
- **STAT 220/Special Topics in Statistics**
- **STAT 240/Statistical Machine Learning**
- **STAT 350/Statistical Theory**
- **STAT 380/Statistics in Context**
- **PHIL 214/Business Ethics (to be cross-listed with REL 214)**
- **REL 365/History of India: Medieval to Modern**
- **DATA 200/Data Science: Introduction, History, and Case Studies**
- **DATA 251/Data Visualization**
- **DATA 252/Modeling and Simulation**
- **DATA 253/Data Analysis**
- **DATA 299/Data Science Across the Curriculum**
- **DATA 400/Applied Data Science**

Revisions to Existing Courses:

- **PHIL 304/Problems of Ethics and Meta Ethics**
  - **Title and description change**
- **ARTH 242/PHIL 334/Aesthetics**
  - **Course number change**
- **ARTH 305/19th-Century European Art**
  - **Title change**

Revisions to Existing Major/Minor:

- **Law, Justice and Society**
  - **Adding courses to electives list**
- **Business Major**
  - **Adding courses to electives list, change to display of courses in catalog and change to number of 300 level courses in the elective category.**

General Education Designations:

- **PHIL 330/Philosophy of Law (course is cross-listed with PSCI 330) [BHUM]**
- **PHIL 214/Business Ethics (to be cross-listed with REL 214) [BHUM]**
- **REL 365/History of India: Medieval to Modern [BINT], [DVIT]**

For Action:

Statistics New Minor:

I. Rationale

What is the rationale for creating this new minor? How will it contribute to the undergraduate education at Drew? What evidence is there of student interest in the minor? How have external benchmarks for the minor such as national association standards or comparable programs at our comparison or peer institutions been used in developing this proposal?

Statistical tools and ways of thinking have become pervasive across the biological, physical and social sciences. In an increasingly data-driven world, an understanding of the mathematical and quantitative aspects of today's issues is an essential element of a liberal education.

The proposed minor in statistics is designed to complement existing science and social science majors and to enable students in these fields to develop a practical understanding of statistical techniques and principles. The proposed program has a strong computational, applied, and interdisciplinary focus which will prepare students to more effectively contribute to their major field of study and to better understand, improve, and protect the world in which we live.

Successful statistics minors will have advantages in the job market and will be more savvy consumers and critically thinking citizens. In addition, the benefits of a statistics minor to those interested in graduate study in almost any field, but particularly in the biological, bio-medical, physical, and social sciences, cannot be overstated.

According to the American Statistical Association, "The widely cited McKinsey report states that 'by 2018, the United States alone could face a shortage of 140,000 to 190,000 people with deep analytical skills as well as 1.5 million managers and analysts with the know-how to use the analysis of big data to make effective decisions'. A large number of those will be at the bachelor's level. The number of bachelor's graduates in statistics has increased by more than 140% since 2003 (21% from 2012 to 2013)."

Due to the generous gift of Steven Gilbert, we were able to make two tenure track hires in statistics, so that we finally have the resources needed to offer a statistics minor at Drew. We originally proposed it in 2009, but it was tabled for lack of resources. There has been strong demand for additional statistical offerings for a while with Math 227, Intermediate Statistics over-enrolled for several years and Jon Kettenring supervising multiple independent studies each semester in statistics.

The American Statistical Association provides curriculum guidelines for statistics minors and ours conforms to those guidelines at http://www.amstat.org/asa/education/Resources-for-Department-Chairs.aspx. American Statistical Association Undergraduate Guidelines Workgroup. 2014. 2014 *curriculum guidelines for undergraduate programs in statistical science*. Alexandria, VA: American Statistical Association.

II. Learning Objectives for the Minor

Learning objectives for the minor: By the end of the minor course of study, students will be able to:

- Use statistical thinking, estimation, statistical testing and resampling.
- Use a variety of predictive and explanatory models in addition to methods for model building and assessment.
- Use professional software including SPSS and R
- Work with real data including accessing and manipulating data in various ways
- Communicate the results of complex statistical analyses in accessible terms to managers and other audiences, both in writing and visually

III. Curriculum/Minor Requirements

a. Outline the requirements for the minor and provide a rationale for the proposed minor structure and courses.

The proposed minor consists of 24 credits of coursework. All courses are 4 credits.

Required Courses (12 credits):

Course Number	Title	Substitutions

MATH 117	Introduction to Statistics	A 4 or 5 on the AP exam
MATH 227	Intermediate Statistics: Applied Linear Models	ECON 303 Economic Methodology and Introductory Econometrics
STAT 380*	Statistics in Context	Courses from other departments that may be taken to satisfy this requirement are applied research methods course (4 credits) with a MATH 117 prerequisite. Existing applicable courses include PSYC 211 Research Methods in Psychology, SOC 210 Sociological Research Methods, NEUR 210 Neuroscience Research Methods, and PH 340 Epidemiology

* Indicates New Course

Elective Courses (12 credits):

Choose three from among:

STAT 120* Statistical Computing in R
STAT 220* Special Topics in Statistics
STAT 240* Statistical Machine Learning
STAT 350** Statistical Theory *Students may substitute MATH 320 Probability and MATH 303 Linear Algebra.*

Prerequisite structure:

Both of the courses that exist currently are labeled MATH (MATH 117 and MATH 227). All of the courses that are labeled STAT are newly proposed. With the solid foundation provided by the MATH courses, and with a desire to have the minor be as easy to fulfill as possible, we do not require any of the STAT courses as prerequisites to other courses. Instead, each of them addresses a different dimension of statistics. Classes at the 100 level have no prerequisites. Classes at the 200 level have MATH 117 as a prerequisite. Classes at the 300 level have MATH 117 and MATH 227 as prerequisites.

The following courses in the minor have no prerequisites:

MATH 117, STAT 120

The following courses in the minor have MATH 117 (or equivalent) as a prerequisite:

MATH 227, STAT 220, STAT 240

The following courses in the minor have both MATH 117 and MATH 227 (or equivalent) as a prerequisite:

STAT 350, STAT 380

Rationale: Students all take a common core. They may choose electives according to their desire to be more theory based or applied.

The prerequisite structure allows flexibility for students to enter the minor in different semesters with the ability to complete it within 3 – 4 semesters.

Note that we will need a new subject code to be created, STAT, for these courses. If that is not possible, it is okay to name them as MATH courses, but we will need to modify the numbers as some of them are already taken. Having the STAT code will allow students to easily search for classes in the minor. In that context, it probably makes sense to change the title of MATH 117 to

STAT 117 and MATH 227 to STAT 227. That will have consequences throughout the catalog as MATH 117 is a prerequisite for several courses. We defer to CAPC's expertise on the issue of appropriate subject code.

b. Provide complete catalog copy for the minor as you want it to appear in the on-line catalog and the next print catalog.

Statistics Minor

Requirements for the Minor (24 credits)

I. Core (12 credits)

MATH 117 Introduction to Statistics or equivalent

MATH 227 Intermediate Statistics or ECON 303 Economic Methodology and Introductory Econometrics

STAT 380 Statistics in Context (Or a course with a MATH 117 prerequisite that uses statistics in the context of another discipline such as PSYC 211 Research Methods in Psychology, SOC 210 Sociological Research Methods, NEUR 210 Neuroscience Research Methods, or PH 340 Epidemiology)

II. Intermediate and Upper Level STAT (12 credits)

Choose three from among:

STAT 120 Statistical Computing in R
STAT 220 Special Topics in Statistics
STAT 240 Statistical Machine Learning
STAT 350 Statistical Theory

c. Provide a table showing a two-year rotation of course offering by semester with proposed instructors.

Fall Odd	Spring Even	Fall Even	Spring Odd
MATH 117 (4 sections) MATH 227 (SA) STAT 120 (CC)	MATH 117 (4 sections) STAT 350 (YL) STAT 380 (CC)	MATH 117 (4 sections) MATH 227 (SA) STAT 120 (CC) STAT 220 (YL)	MATH 117 (4 sections) STAT 240 (CC) STAT 380 (YL)

The proposed instructors for Math 117 are SA, CC, and YL, although these classes may be taught by CA or SK

SA is Sarah Abramowitz

CC is Chris Casement

YL is Yi Lu

CA is Chris Apelian

SK is Steve Kass

IV. Impact on and Connections with Other Departments/Programs

Does the proposed minor offer possibilities for interdisciplinary collaboration? Will the proposed minor depend on courses from other departments? Will the proposed minor offer courses that might be cross-listed by other departments? Will the proposed minor have a significant impact on enrollments in other departments/programs?

The minor has an applied focus and offers possibilities for interdisciplinary collaboration. Math majors can use two courses required for the major towards this minor, so they may complete the minor with only 4 additional courses. Psychology, sociology, neuroscience, and economics majors can also use two courses required for the major towards this minor, so they may complete the minor with only 4 additional courses. This minor should appeal to students in these disciplines. However, students can complete the minor without taking any courses in other disciplines, so it does not depend on courses from other departments. The proposed minor will not have significant impact on enrollments in other departments or programs, but the students in the statistics minor will probably come from these departments because those are the students who are currently enrolling in MATH 227.

V. Effective Date/Transition Plan

What is the effective date for the new minor? If an old minor is being phased out, what is the transition plan? Which students will under the old requirements and which under the new?

Students will be eligible to enroll in the minor starting in Fall 2017. There is no old minor.

VI. Course Descriptions

Attach complete course proposal forms and gen ed forms for each new or revised course included in the minor.

Course Descriptions :

MATH 117 Introduction to Statistics (4 credits)
This course is designed to enable students to use statistics for data analysis and to understand the use of statistics in the media. The course makes use of SPSS, a widely-used statistics package for the computer. Course topics include graphical and tabular presentation of data, measures of central tendency, dispersion, and shape, linear transformations of data, correlation, regression, probability, the normal probability mode[1]l, sampling, *t*-tests, and one-way analysis of variance.
Fulfills the Quantitative-General Education Requirement.

Prerequisite: None.

Same as: MAT 861.

MATH 227 Applied Linear Models (4 credits)
This course covers methods of statistical inference including multi-way analysis of variance and simple and multiple linear regression.
Prerequisite: C- or better in MATH 117.
Students may substitute ECON 303 Economic Methodology and Introductory Econometrics.

STAT 120 Statistical Computing in R (4 credits)

This course provides students with an introduction to computing in the popular statistical programming language R. Topics include: data structures, reading and storing data, data transformation and manipulation, accessing and using packages,

conditionals, loops, functions, graphics and data visualization, and introductory statistical methods for data analysis. No previous programming experience is required.

Prerequisite: None

STAT 220 Special Topics in Statistics (4 credits)

This course is intended to add depth to the minor by including a variety of supplemental topics. Depending on instructor and student interest, topics may include categorical data analysis (including generalized linear models), time series, sports statistics, sampling methods, survey research, and nonparametric statistics.

Prerequisite: C- or better in MATH 117

STAT 240 Statistical Machine Learning (4 credits)

This course provides students with an introduction to statistical machine learning techniques using the statistical programming language R. Emphasis will be on supervised learning methods such as linear and logistic regression, k-nearest neighbors, discriminant analysis, naïve Bayes, and decision trees, as well as model assessment tools such as cross-validation.

Prerequisite: C- or better in MATH 117

STAT 350 Statistical Theory (4 credits)

This course is intended for students interested in augmenting their understanding of the topics covered in MATH 117 and Math 227 with a more thorough treatment of the topics. Additional material includes mathematical notation and fundamental concepts used in statistics, basic discrete probability, probability models and distributions, and more in-depth, mathematical treatment of other topics found in MATH 117. The course also develops some basic mathematical (i.e., matrix algebra) and statistical topics needed for analyzing high-dimensional statistical data. Appropriate for students interested in attending graduate school in statistics or related discipline.

Prerequisite: C- or better in MATH 227 or ECON 303.
Students may substitute MATH 329 Probability and MATH 303 Linear Algebra (8 credits.)

STAT 380 Statistics in Context (4 credits)

In this research seminar, students complete a major research project that includes a significant statistical component. The research project may be a part of another credit -bearing experience (such as a departmental research seminar, honors thesis or independent study) or it may be original for the course. In this course, students will conceptualize, implement, analyze, and communicate the results of the quantitative data analysis portion of their research project.

Prerequisite: C- or better in MATH 227 or ECON 303

Students may substitute a course with a MATH 117 prerequisite that uses statistics in the context of another discipline such as PSYC 211 Research Methods in Psychology, SOC 210 Sociological Research Methods, NEUR 210 Neuroscience Research Methods, or PH 340 Epidemiology.

APPENDIX A

Students may substitute MATH 303 and 320 for STAT 350 and ECON 303 for MATH 227. Existing research methods courses with a MATH 117 prerequisite that may be substituted for STAT 380 are NEUR 210 Neuroscience Research Methods, PH 340 Epidemiology, PSYC 211 Research Methods in Psychology, and SOC 210 Sociological Research Methods. Catalog descriptions of these courses follow.

ECON 303 Economic Methodology and Introductory Econometrics

This course studies empirical economic research, especially focused on the classical linear regression model and how to proceed with econometric analysis when some assumptions of the classical model do not hold. It examines sampling, statistical theory and hypothesis testing. This course also examines criticisms of and alternatives to common econometric methodologies. Students are expected to take this course in their second or third year. Prerequisite: ECON 101, ECON 102, and MATH 117 or MATH 320. Spring Semester

MATH 303 Linear Algebra
Matrices, determinants, systems of linear equations, linear transformations, vector spaces, eigenvalues, applications, and additional topics chosen from numerical methods for solving linear equations, canonical forms, quadratic forms. Prerequisite: C- or better in MATH 250 or MATH 310. Offered spring semester.

MATH 320 Probability
The fundamentals of probability theory including discrete and continuous random variables and their distributions, conditional probability and independence, joint probability distributions, expected values, moment generating functions, laws of large numbers, and limit theorems. Special topics selected from random walks, Markov chains, and applications as time permits. Prerequisite: C- or better in MATH 250 and MATH 310. Same as: MAT+866. Offered fall semester in odd years.

NEUR 210 Neuroscience Research Methods

This course examines research methods commonly employed in the neurosciences, with an emphasis on experimental procedures. The course encourages development of skills in collecting and analyzing quantitative data and in scientific writing. Prerequisite: NEUR 101 and MATH 117. Offered annually. CLA-Writing in the Major

PH 340 Epidemiology

An in-depth study of disease profiles, patterns and frequencies. Concepts of cause and effect; disease transmission, prevention and control; efficacy and effectiveness of intervention strategies; frameworks for development of evidence-based recommendations; as well as applications of epidemiological methods to screening, outbreak investigations, and policy will be examined. Prerequisite: MATH 117 or permission of Instructor. Offered fall Semester.

Data Science New Minor:

I. Rationale

What is the rationale for creating this new minor? How will it contribute to the undergraduate education at Drew? What evidence is there of student interest in the minor? How have external benchmarks for the minor such as national association standards or comparable programs at our comparison or peer institutions been used in developing this proposal?

From the blog https://blogs.valpo.edu/datadesk/2017/04/11/why-undergrad-data-science/: "The job 'Data Scientist' was heralded as "The Sexiest Job of the 21st Century" by Harvard Business Review in 2012[1] at a crest of the ongoing publicity in the career fields associated with 'big data.' Articles on both the discipline and reality regularly appear in a variety of popular press outlets, including The Economist[2] and The New York Times[3], concurrently with growing discussion in more scholarly venues. The increased need for this specialty is driven by the fact that human activity is already generating petabytes of data each day and "data is projected by some experts to increase by 2,000 percent between now and 2020"[4]. Society will need more professionals and researchers capable of competently dealing with the huge influx of data that will be accumulated in the next decade and onward."

In the last forty years, data analysis and visualization, computer simulation, and computer modeling have become important tools for disciplinary research and inquiry. In many areas the change has been revolutionary, transforming the nature of knowledge itself. For example, without computing technology, we simply could not know what we do today about genomics, neuroscience, or geography. Further from traditional science disciplines, data, supported by tools that access, process, summarize, and visualize it, have given us Google Translate, GPS, instant access to centuries' worth of music and art, and much more. Data science has arguably democratized knowledge and information (if sometimes imperfectly). This minor would enable students to participate in the data revolution not only as consumers, but as creators and developers, and to understand and experience the role of data technology in modern research and decision making.

According to the American Statistical Association statement on the role of statistics in data science (http://magazine.amstat.org/blog/2015/10/01/asa-statement-on-the-role-of-statistics-in-data-science/): "Certainly, data science intersects with numerous other disciplines and areas of research. Indeed, it is difficult to think of an area of science, industry, commerce, or government that is not in some way involved in the data revolution. But it is databases, statistics, and distributed systems that provide the core pipeline. At its most fundamental level, we view data science as a mutually beneficial collaboration among these three professional communities, complemented with significant interactions with numerous related disciplines. For data science to fully realize its potential requires maximum and multifaceted collaboration among these groups." This statement explains the interdisciplinary nature of data science and the need for student expertise in a discipline in which these computational and statistical techniques may be used.

Sarah Abramowitz attended the ASA Statistics and Biostatistics Department Chairs workshop in July. While there was a lot of discussion about innovative programs in Data Science and she learned about important components of these programs, all the exemplars were at the Master's level, yet there was a lot of interest at the undergraduate level too. We have an exciting opportunity to create a program at the Bachelor's level that will give students valuable skills that they can apply in graduate work or in the workplace.

In conversations with members of the Digital Humanities initiative and with the faculty involved in the development of the Communications minor, it has become clear that there is widespread interest in this minor. Faculty in fields as wide-ranging as Art, Business, Media and Communications, and Political Science have noted their students' desire for data studies courses. We particularly expect a lot of student interest in DATA 251: Data Visualization. The Mellon Digital Humanities planning group, of which Emily Hill and Steve Kass were a part, discussed the synergies of a data studies and the DH initiative. In fact, Emily Hill was one of five faculty members to work with a group of students in Drew's first Digital Humanities Summer Institute.

This minor in data science is structured to focus on the intersection of statistics, computer science and content knowledge from another discipline. For that reason, the required courses include preparatory and core courses in statistics, models, and computer science and also content knowledge in another discipline. Students take at least four credits at the intermediate or advanced level in another discipline so that they have some expertise in a domain in which they can apply their computational and statistical thinking

Goals:

1. Engagement. Engage students in data science as it applies to disciplines, through data analysis, visualization, computer simulation, and computer modeling. Encourage students to investigate and assess data science used by others to support research and public policy;

2. Perspective. Teach students the uses, potential, and limitations of the tools of computing technology as a foundation for research and knowledge acquisition in disciplines and in society.

3. Collaboration. Applied data science is multidisciplinary. It requires expertise in three areas: in computing, in mathematics and statistics, and as content knowledge and understanding in the domain of application. Beginning in the DATA 25x courses, which have flexible prerequisites, and manifestly in DATA 299 (Data Science across the Curriculum), collaboration will be vital.

Rationale. The role of computing technology in research and public policy, and the use of data in particular, is growing rapidly. To participate fully in modern discourse, students and scholars increasingly need to use computers to model the world, to make predictions, and to analyze data. In addition, they need to understand how computational methods and tools can be used and what potential and limitations they have. Students enrolled in this minor will learn how to investigate disciplinary questions computationally, and they will learn to consider the social and ethical issues of computational study. The minor provides a

multidisciplinary foundation in these skills as well as individual experience applying that foundation through projects in a chosen field of study.

A number of schools offer minors with related, but generally more narrowly-focused goals. These are typically focused on scientific computation with courses in computer science and applied mathematics (Capital University, Boston College), are minors within engineering programs (Ohio State), or are directed towards a single discipline (Nebraska-Lincoln and Duke programs in Bioinformatics). Interdisciplinary, but more (or perhaps too) broadly-conceived "studies" programs, or programs focused on digital archives and resources more than computational tools and data analysis, also exist (Davidson College, Hamilton College, the Ohio Five).

The proposed Drew minor is broadly conceived, innovative, and, for now, distinctive. Without a doubt, though, other schools will develop similar programs soon. Data science is not a fad. Bates College, for example, has announced that it will begin a Digital and Computational Studies Major in 2018, supported by $19 million in gifts.

The American Statistical Association provides curriculum guidelines for data science programs and ours conforms to those guidelines at https://www.amstat.org/asa/files/pdfs/EDU-DataScienceGuidelines.pdf. American Statistical Association Undergraduate Guidelines Workgroup. 2017. 2017 *curriculum guidelines for undergraduate programs in data science*. Alexandria, VA: American Statistical Association.

II. Learning Objectives for the Minor

Learning objectives for the minor: By the end of the minor course of study, students will be able to:

- Demonstrate the ability to communicate effectively about mathematical and statistical concepts, as well as complex data analysis, in both written and verbal formats.
- Implement solutions to mathematical and analytical questions in language(s) and tools appropriate for computer-based solutions, and do so with awareness of performance and design considerations.
- Apply computational and statistical thinking practices to problems in other disciplines.

III. Curriculum/Minor Requirements

a. Outline the requirements for the minor and provide a rationale for the proposed minor structure and courses.

Students minoring in Data Science must complete the following requirements (26 credits)

<u>Data Science Minor</u>

I. Preparatory courses (8 credits):

a. An introductory course in computer programming selected from the following list:
CSCI 149: Introduction to Computer Science in JavaScript
CSCI 150: Introduction to Computer Science in Python
STAT 120 Statistical Computing in R (Proposed for statistics minor)
b. MATH 117: Introductory Statistics

II. Core courses (10 credits):

DATA 200: Data Science: History and Case Studies

DATA 400: Applied Data Science

One of the following courses (4 credits) in principles, methods, and tools:

DATA 251: Data Visualization
DATA 252: Modeling and Simulation
DATA 253: Data Analysis

III. Elective courses (8 credits). At least 4 credits separate from DATA 251-253.:

DATA 251: Data Visualization
DATA 252: Modeling and Simulation
DATA 253: Data Analysis
DATA 299: Data Science across the Curriculum
HIST 215 History by the Numbers
ESS 302/BIO 302: Geographic Information Systems
CSCI 330/DATA 330: Information Management
STAT 240/DATA 240: Statistical Machine Learning
PH 340: Epidemiology
NEUR 366/PHYS 366 Computational Modeling of Neural Systems

Students must take eight elective credits, no more than four of which can come from DATA 251-253. We are distributing the credits in this way to ensure that each minor will include at least one course where students apply their computational and statistical thinking in a particular discipline. We anticipate that many courses will be added to this list as we are made aware of them or as departments and programs develop appropriate courses. In a case, for instance, where a student is majoring in basket weaving but we have no data-related basket weaving options available, the student could register for DATA 299 where they would pair their knowledge of basket weaving with their computational expertise.

Internship or Independent Study credits may count as electives for the minor, when relevant and approved by the director of the minor.

The following are being proposed as new courses for the data studies minor:

DATA 200, 251, 252, 253, 299, 400

The following are being proposed as new courses for the statistics minor but would also count toward the Data Studies minor:

STAT 120, 240

b. Provide complete catalog copy for the minor as you want it to appear in the on-line catalog and the next print catalog.

<u>Data Science Minor</u> (26 credits)

I. Preparatory courses (8 credits):

An introductory course in computer programming selected from the following list:

CSCI 149: Introduction to Computer Science in JavaScript

CSCI 150: Introduction to Computer Science in Python
STAT 120 Statistical Computing in R
MATH 117: Introductory Statistics

II. Core courses (10 credits):

DATA 200: Data Science: History and Case Studies
DATA 400: Applied Data Science (2 credits)

One of the following courses in principles, methods, and tools:

DATA 251: Data Visualization
DATA 252: Modeling and Simulation
DATA 253: Data Analysis

III. Electives (8 credits). At least 4 credits separate from DATA 251-253:

DATA 251: Data Visualization
DATA 252: Modeling and Simulation
DATA 253: Data Analysis
DATA 299: Data Science across the Curriculum
CSCI 330/DATA 330: Information Management
ESS 302/BIO 302: Geographic Information Systems
HIST 215 History by the Numbers
NEUR 366/PHYS 366 Computational Modeling of Neural Systems
PH 340: Epidemiology
STAT 240/DATA 240: Statistical Machine Learning

Internship or Independent Study credits may count as electives for the minor, when relevant and approved by the director of the minor.

c. Provide a table showing a two-year rotation of course offering by semester with proposed instructors.

Fall Odd	Spring Even	Fall Even	Spring Odd
CSCI 150 (x2 secs.) MATH 117 (x4) STAT 120 (CC) CSCI 330 (EH) DATA 253 (YL) DATA 400 (SK)	CSCI 150 (EH) MATH 117 (x4) CSCI 149 (BB) DATA 200 (SK, CC or YL)	CSCI 150 (x2 secs.) MATH 117 (x4) STAT 120 (CC) DATA 252 (CA) DATA 251 (SK, YL, or CC) DATA 400 (SK)	CSCI 150 (x2 secs.) MATH 117 (x4) CSCI 150 (EH) CSCI 149 (BB) DATA 200 (SK, CC or YL) STAT 240 (CC)

For DATA 299, the anticipated instructor and timing depends on student interest as determined by associated course or project. Students who are already participating in a project based course or experience in their majors may get credit if they augment these works using data science techniques learned in classes in this minor. These additions to the work that they are already doing will be overseen by their primary instructor or advisor, assuming they have the expertise, or someone associated with the Data Science minor if they do not. Note that students may complete the minor without taking this course. This will not be a regularly scheduled course, but instead a type of interdisciplinary independent study. Because the prerequisite, DATA 200 will not be offered until Spring 2018, we anticipate that DATA 299 will not be offered before Fall 2018.

Notes:
SK is on sabbatical leave for AY 2017-18 and will resume teaching CSCI 330 and begin teaching DATA 200 thereafter.

MATH 117: Proposed instructors are SA, CC, and YL, although these classes may be taught by CA or SK.
CSCI 150: Regularly taught by EH, and sometimes by NH, BB, or SK.

The Computer Science department offers CSCI 290 and CSCI 390 at least three times per year. This course is not listed above, since not every offering may be appropriate for the Data Science minor.
DATA 251: First offering will be during Fall 2018. After that, instructor and semester may depend on hires made in Computer Science and Media and Communications.
DATA 253: First offering will be Fall 2019.

DATA 400: First offering expected to be Fall 2019.
EH is Emily Hill

BB is Barry Burd

NH is the new non-tenure-track hire in Computer Science (job offer out and pending)

CC is Chris Casement

YL is Yi Lu

CA is Chris Apelian

SK is Steve Kass

IV. Impact on and Connections with Other Departments/Programs

Does the proposed minor offer possibilities for interdisciplinary collaboration? Will the proposed minor depend on courses from other departments? Will the proposed minor offer courses that might be cross-listed by other departments? Will the proposed minor have a significant impact on enrollments in other departments/programs?

The minor has an applied focus and offers possibilities for interdisciplinary collaboration.

Over time, individual disciplines will continue to train their students in more and more computational techniques as appropriate, but this minor will remain valuable for students who want to delve into applied computation more deeply or more broadly, or to anticipate careers — like data journalism or public policy — that transcend single academic disciplines. Careful planning and cooperation across departments will be required in order for this vision to be realized. Once established, this program will also provide a natural opportunity for visiting and interdisciplinary faculty.

V. Effective Date/Transition Plan

What is the effective date for the new minor? If an old minor is being phased out, what is the transition plan? Which students will under the old requirements and which under the new?

Students will be eligible to enroll in the minor starting in Fall 2017. There is no old minor.

VI. Course Descriptions

Note that the course name DATA needs to be created and two cross listed courses need to be created:

CSCI 330/DATA 330: Information Management
STAT 240/DATA 240: Statistical Machine Learning

Attach complete course proposal forms and gen ed forms for each new or revised course included in the minor.

DATA 200: Data Science: Introduction, History, and Case Studies (4 cr.) An introduction to data science centered around small projects and case studies. Basic techniques for data acquisition, public data sources, privacy and security, ethical and legal issues. Case studies will include uses of data and data science in industry and public policy and examples of data journalism.
Prerequisite: None

DATA 251: Data Visualization (4 cr.)
A survey of techniques and tools for effectively visualizing small and large data sets in informative ways for a variety of audiences. Examples from a range of disciplines are used.
Prerequisite: C- or better in MATH 117

Data 252: Modeling and Simulation (4 cr.) Techniques for modeling and simulating systems using a variety of techniques, including statistical models, Monte Carlo simulations, agent-based models, and machine learning.

Prerequisite: C- or better in CSCI 149: Introduction to Computer Science in JavaScript or C- or better in CSCI 150: Introduction to Computer Science in Python or C- or better in STAT 120 Statistical Computing in R (Proposed for statistics minor)

DATA 253: Data Analysis (4 cr.) Techniques for analysis of data using statistics, neural networks, Prerequisite: Minor requirements 1a (an introductory course in computer programming) and 1b (an introductory course in statistics). One of the two prerequisites may be taken concurrently with DATA 253.

Prerequisite: Prerequisite: C- or better in MATH 117 and C- or better in CSCI 149: Introduction to Computer Science in JavaScript or C- or better in CSCI 150: Introduction to Computer Science in Python or C- or better in STAT 120 Statistical Computing in R (Proposed for statistics minor). One of the two prerequisites may be taken as a co-requisite.

DATA 299: Data Science Across the Curriculum (1-4 credits)
Students who wish to undertake a significant data science project may propose to enroll in DATA 299 in conjunction with a civic engagement project, an off-campus experience, a senior thesis, or a faculty research project. DATA 299 proposals must be approved by a faculty member with the requisite expertise who is willing to supervise the project and by the director of the minor. To the extent that supervision of DATA 299 is not counted towards faculty workload, a limited number of proposals can be undertaken. Open to students who have declared a Data Science minor.
Prerequisite: DATA 200.

Students who are already participating in a project-based course or experience in their majors may get credit if they augment these works using data science techniques learned in classes in this minor. These additions to the work that they are already doing will be overseen by their primary instructor or advisor, assuming they have the expertise, or someone associated with the Data Science minor if they do not

DATA 400: Applied Data Science (2 cr.) A weekly seminar for advanced Data Science minors. Students present individual work from previous courses and collaborate to organize a poster session, and students participate in a (new) collaborative data science project in cross-disciplinary groups.

Prerequisite: 16 credits toward the Data Studies minor

Descriptions of current discipline specific Drew courses involving data that may be used for the minor:

CSCI 330 - Information Management

4 credits Theory and practice of information storage, management and retrieval, emphasizing relational database management systems. Case studies of small-scale (personal computing) and large-scale (corporate records on distributed systems) applications. Data modeling, database design and management, query processing, data integrity, and security. Legal and social contexts of data management; the responsibility of professionals to understand requirements, risks, and liabilities. Prerequisite: C- or better in CSCI 151 and CSCI 210.

ESS 302 - Geographic Information Systems

4 credits This course explores GIS (Geographic Information System) and related spatial analysis tools, which are used to elucidate the natural landscape and human modification of the earth's surface. Students will acquire cartographic, ArcGIS, and remote sensing skills through case studies and individual research investigations. Enrollment priority: Given to majors in Biology,Environmental Studies,and Archaeology. Same as: BIOL 302. CLA-Breadth/Interdisciplinary, CLA-Quantitative

HIST 215 - History by the Numbers

4 credits This mid-level course explores various historical topics using the U.S. Census, Statistical Abstracts, opinion polls, online historical archives, and selected European sources. Topics include politics, public opinion, immigration, lifestyle, ethnicity and race, gender and sexuality, economic growth, income inequality, technology and manufacturing, and natural resource utilization. This course seeks to develop students' competency in analyzing quantitative information, and in relating this information to real-world conditions. Students will learn how to read statistical tables, import data to spreadsheet programs, generate graphs, and perform basic analyses using spreadsheet functions. Advanced students will be encouraged to undertake more sophisticated analyses such as word frequency counts and arguments using logical operators. A laptop computer with an installed spreadsheet program required. No mathematics background needed.

CLA-Breadth/Humanities, CLA-Quantitative

NEUR 366 - Computational Modeling of Neural Systems

4 credits Computational neuroscience is the study of the brain as a computational and information-processing organ. It is a highly interdisciplinary field that employs various ideas and techniques from physics, biology, chemistry, mathematics, computer science, psychology, and (of course) neuroscience. In this course, we cover the following topics: biophysics of a single neuron; dynamics of neural networks; models of associative memory and object recognition; and numerical methods and tools for analyzing and simulating a dynamical system. We study the fundamental biophysical properties and processes of the neurons and their networks, while also learning to use several analytical and numerical methods for studying a complex dynamical system. The goal of the course is to develop an interdisciplinary approach for analyzing a biological system. Prerequisite: PHYS 150, MATH 150. Corequisite: PHYS 160, MATH 151. Same as: PHYS 366. CLA-Breadth/Interdisciplinary

PH 340 - Epidemiology

4 credits An in-depth study of disease profiles, patterns and frequencies. Concepts of cause and effect; disease transmission, prevention and control; efficacy and effectiveness of intervention strategies; frameworks for development of evidence-based recommendations; as well as applications of epidemiological methods to screening, outbreak investigations, and policy will be examined. Prerequisite: MATH 117 or permission of Instructor. Offered fall Semester.

STAT 240 - Statistical Machine Learning (Approved last week)

4 credits This course provides students with an introduction to statistical machine learning techniques using the statistical programming language R. Emphasis will be on supervised learning methods such as linear and logistic regression, k-nearest neighbors, discriminant analysis, naïve Bayes, and decision trees, as well as model assessment tools such as cross-validation.

Prerequisite: C- or better in MATH 117

Special Minor Catalog Copy:

Note from CAPC: Currently, the guidelines for the Special Minor only exist in UKNOW. CAPC is recommending that we vote it into the Academic Policies page of the catalog. The policy remains unchanged.

Special Minor

Students may design a minor that focuses on a particular topic, question, problem, or theme not covered by any of the disciplinary or interdisciplinary minors regularly offered as part of the College curriculum. To propose a minor, the student must have an overall GPA of 3.1 or better and should develop the proposal in consultation with a faculty member who agrees to sponsor the minor and to serve as the student's minor advisor.

The self-designed minor:

- must include at least twenty four (24) credits related to the theme, question, topic, or problem.;
- may include no more than four (4) credits at the introductory level;
- will include courses drawn from more than one department or program.

Students proposing a self-designed minor should submit a proposal including:

- a description of the topic, question, problem, or theme on which the minor focuses;
- a clear statement of the rationale for the minor and for the inclusion of the particular courses selected;
- a list of the courses included in the minor and the semester when they will be taken;
- the signature of the sponsoring faculty member as well as a statement of endorsement from him or her.

Students must propose self-designed minors no later than the first semester of the junior year. Proposals, accompanied by the completed form, should be submitted to the Associate Dean for Curriculum and Faculty Development and require approval by the Committee on Academic Policy and Curriculum.

DSEM Policy for Transfer Students:

Current Policy

Applicability of Transfer Credit to General Education Requirements

- Transferred courses are eligible to fill general education requirements in cases where they meet the learning objectives of a specific Drew requirement.
- Drew's first-year college writing requirement is waived if a student transfers in two semesters of college writing from a community college or one semester from a four year college or university.
- Drew's first-year seminar requirement (DSEM) will be waived for students entering Drew with 24 or more credits.

- If Drew transfers 2.5 credits or more for a course taken at another institution, that course may be used to satisfy one 4-credit Drew general education requirement.

Proposed Policy

Applicability of Transfer Credit to General Education Requirements

- Transferred courses are eligible to fill general education requirements in cases where they meet the learning objectives of a specific Drew requirement.
- The Drew Seminar (DSEM) Drew's first-year college writing requirement is waived if a student transfers in two semesters of college writing from a community college or one semester from a four year college or university.
- Drew's first-year seminar requirement (DSEM) will be waived for students entering Drew with 24 or more credits.
- If Drew transfers 2.5 credits or more for a course taken at another institution, that course may be used to satisfy one 4-credit Drew general education requirement.

Rationale

There are relatively few transfer students who arrive at Drew having completed the first year writing requirement but who also have fewer than 24 credits. However, for those students who are in this situation (e.g., spring semester transfer students who started college at a different school and transfer to Drew in the first year), the fact that we have combined the first year writing requirement and the first year seminar into a single course poses problems. Per the current policy, those students need to complete the DSEM still because they have not earned more than 24 credits, and a workaround has to be developed to both get them into the DSEM and still give them credit for the writing course(s) that they took elsewhere. That workaround also has to then be applied in Ladder manually. These students have also expressed unhappiness about the fact that they must complete the DSEM when they have almost always completed a first year seminar at their previous institution (often combined with the writing requirement). (NOTE: the current workaround is that the students complete the DSEM and the course(s) that the students completed to meet the writing requirement are being manually applied to the writing intensive requirement.) The current policy is worded as it is due to the previous iteration of the first year experience where the seminar and writing were separate courses; now that they are combined, it is proposed that we simply eliminate this redundancy and the workaround that it is necessitating. Should students who transfer with fewer than 24 credits wish to take the DSEM, or Academic Writing (WRTG 120), they could still do so.

New Course Descriptions:

STAT 120/Statistical Computing in R

This course provides students with an introduction to computing in the popular statistical programming language R. Topics include: data structures, reading and storing data, data transformation and manipulation, accessing and using packages, conditionals, loops, functions, graphics and data visualization, and introductory statistical methods for data analysis. No previous programming experience is required.

STAT 220/Special Topics in Statistics

This course is intended to add depth to the minor by including a variety of supplemental topics. Depending on instructor and student interest, topics may include categorical data analysis (including generalized linear models), time series, sports statistics, sampling methods, survey research, and nonparametric statistics. Prerequisite: C- or better in MATH 117

STAT 240/Statistical Machine Learning

This course provides students with an introduction to statistical machine learning techniques using the statistical programming language R. Emphasis will be on supervised learning methods such as linear and logistic regression, k-nearest neighbors, discriminant analysis, naïve Bayes, and decision trees, as well as model assessment tools such as cross-validation.
Prerequisite: C- or better in MATH 117

STAT 350/Statistical Theory

This course is intended for students interested in augmenting their understanding of the topics covered in MATH 117 and Math 227 with a more thorough treatment of the topics. Additional material includes mathematical notation and fundamental concepts used in statistics, basic discrete probability, probability models and distributions, and more in-depth, mathematical treatment of other topics found in MATH 117. The course also develops some basic mathematical (i.e., matrix algebra) and statistical topics needed for analyzing high-dimensional statistical data. Appropriate for students interested in attending graduate school in statistics or related discipline. Prerequisite: C- or better in MATH 227 or ECON 303. Students may substitute MATH 329 Probability and MATH 303 Linear Algebra (8 credits.)

STAT 380/Statistics in Context

In this research seminar, students complete a major research project that includes a significant statistical component. The research project may be a part of another credit -bearing experience (such as a departmental research seminar, honors thesis or independent study) or it may be original for the course. In this course, students will conceptualize, implement, analyze, and communicate the results of the quantitative data analysis portion of their research project. Prerequisite: C- or better in MATH 227 or ECON 303. Students may substitute a course with a MATH 117 prerequisite that uses statistics in the context of another discipline such as PSYC 211 Research Methods in Psychology, SOC 210 Sociological Research Methods, NEUR 210 Neuroscience Research Methods, or PH 340 Epidemiology.

PHIL 214/Business Ethics (to be cross-listed with REL 214)

A philosophical and theological study of those ethical, religious, and social issues that play an important role in thinking morally about economic and business practices. Attention is paid to practical ethical problems arising out of the functional areas of management and the wider areas of business and social responsibility in relation to the community, ecology, minorities, the role of multinationals and public safety. Offered spring semester and occasional summers CLA-Breadth/Humanities

REL 365/History of India: Medieval to Modern

This course covers medieval to modern history of India, surveying classical to colonial modes of social order through Independence (1947), with selective postcolonial materials. Major topics include the shift from governance by imperial divine right to the colonialist empire, the project to redefine India as a nation, Gandhi's theories of non-violent resistance and self-rule, women's status and participation in defining modernity, partition and Kashmir, and post-colonial identity and priorities. The course engages a rich variety of primary materials, such as traditional legal treatises, courtly chronicles, fine art and monuments, speeches, and documentary film to study major developments in medieval to modern history of India.

DATA 200/Data Science: Introduction, History, and Case Studies

An introduction to data science centered around small projects and case studies. Basic techniques for data acquisition, public data sources, privacy and security, ethical and legal issues. Case studies will include uses of data and data science in industry and public policy and examples of data journalism.

DATA 251/Data Visualization

A survey of techniques and tools for effectively visualizing small and large data sets in informative ways for a variety of audiences. Examples from a range of disciplines are used.
Prerequisite: C- or better in MATH 117

DATA 252/Modeling and Simulation

Techniques for modeling and simulating systems using a variety of techniques, including statistical models, Monte Carlo simulations, agent-based models, and machine learning. Prerequisite: C- or better in CSCI 149: Introduction to Computer Science in JavaScript or C- or better in CSCI 150: Introduction to Computer Science in Python or C- or better in STAT 120 Statistical Computing in R

DATA 253/Data Analysis

Techniques for analysis of data using statistics, neural networks, Prerequisite: Minor requirements 1a (an introductory course in computer programming) and 1b (an introductory course in statistics). One of the two prerequisites may be taken concurrently with DATA 253. Prerequisite: C- or better in MATH 117 and C- or better in CSCI 149: Introduction to Computer Science in

JavaScript or C- or better in CSCI 150: Introduction to Computer Science in Python or C- or better in STAT 120 Statistical Computing in R (Proposed for statistics minor). One of the two prerequisites may be taken as a co-requisite.

DATA 299/Data Science Across the Curriculum

Students who wish to undertake a significant data science project may propose to enroll in DATA 299 in conjunction with a civic engagement project, an off-campus experience, a senior thesis, or a faculty research project. DATA 299 proposals must be approved by a faculty member with the requisite expertise who is willing to supervise the project and by the director of the minor. To the extent that supervision of DATA 299 is not counted towards faculty workload, a limited number of proposals can be undertaken. Open to students who have completed 16 credits in the Data Science minor.
Prerequisite: C- or better in DATA 200.

DATA 400/Applied Data Science

A weekly seminar for advanced Data Science minors. Students present individual work from previous courses and collaborate to organize a poster session, and students participate in a (new) collaborative data science project in cross-disciplinary groups.Prerequisite: 16 credits toward the Data Studies minor

Changes to Existing Courses:

PHIL 304/Problems of Ethics and Meta Ethics

Current:

Critical discussions of issues in contemporary moral philosophy in the areas of applied ethics, normative ethics, and meta-ethics. At the most highly theoretical level are considerations about the meaning of moral terms that give rise to cognitive and noncognitive theories of ethics. At a more immediate level are problems of practical concern having to do with such issues as euthanasia, abortion, animal rights, and world hunger. Readings are from 20th-century philosophers, most of whom are alive today. Offered spring semester.

Proposed:

PHIL 304/Ethics and Society

Critical discussions of issues in contemporary moral philosophy in the areas of applied ethics, normative ethics and social policy.Issues to be covered include euthanasia, abortion, sexual morality, pornography and censorship, religious freedom, sexual morality, drug control, terrorism, torture, war, spying, animal rights, environment and global climate change,and world hunger. Readings are from 20th-century philosophers, most of whom are alive today. Offered spring semester. CLA-Breadth/Humanities .

ARTH 242/Aesthetics

Current title:

ARTH 242/Aesthetics (cross-listed with PHIL 334)

Proposed Title:

ARTH 334/Aesthetics (cross-listed with PHIL 334)

ARTH 305/19th Century European Art

Current Title:

ARTH 305/19th Century European Art

Proposed Title:

ARTH 305/19th-Century European Art: Neoclassicism to Post-Impressionism

Changes to Existing Major/Minor:

Current Law, Justice and Society Minor:

Requirements for the Minor (24 Credits)

I. Required Core/Gateway Course

- **PSCI 211 - Law, Justice, and Society**

II. Electives

Five other courses are to be chosen from the following courses, provided that courses are from at least two different departments, and at least two courses must have a non-U.S. or International focus.
U.S. Focus:

- **ENGL 309 - Law and Literature**
- **HIST 320 - Modern American Legal History**
- **PSCI 301 - Civil Liberties**
- **PSCI 303 - Constitutional Law and Civil Rights**
- **SOC 307 - Criminology Prerequisite: SOC 101 or equivelent.**
- **SOC 314 - Engendering Prison OR:**
- **WGST 314 - Engendering Prisons Prerequisite: SOC 101 or permission of the instructor.**

Non-U.S./International Focus:

- **CLAS 275 - Law and Trials in Ancient Society**
- **ENGL 310 - Human Rights in Literature and Film Prerequisites: ENGL 150 or ENGL 109 or permission of the instructor.**
- **PSCI 248 - Special Topics in Human Rights**
- **PSCI 344 - Torture: Pain, Body, and Truth**
- **PSCI 365 - Seminar on Human Rights**
- **PSCI 383 - The United Nations System and the International Community Prerequisite: PSCI 104.**
- **RUSS 350 - Banned Books: Russian Literature and Censorship**

Note:

ARGS 863 - Banned Books: Russian Literature and Censorship (Caspersen School of Graduate Studies) and CSOC 561 - Mass Incarceration and Economic Justice (Theological School) may be taken and counted toward the electives portion of the minor requirements.
Other courses offered as special topics may be applied to the minor as deemed appropriate.
Example:
PSYC 360 - Psychology Seminar: Contemporary Issues in Psychology (if topic was: Psychology and the Law [U.S. Focus] or topic similar)
PSCI 256 - Selected Studies in Political Science (if topics was: Introduction to Legal Education [U.S. Focus] or topic similar)
PSCI 332 - Advanced Topics in Political Theory (if topic was: Cultural Diversity and the Law [US Focus] or topic similar -)

Proposed Law, Justice and Society Minor:

Requirements for the Minor (24 Credits)

I. Required Core/Gateway Course

- **PSCI 211 - Law, Justice, and Society**

II. Electives

Five other courses are to be chosen from the following courses, provided that courses are from at least two different departments, and at least two courses must have a non-U.S. or International focus.

U.S. Focus:

- **ENGH 363 - Law and Literature**
- **HIST 320 - Modern American Legal History**
- **PHIL 330 – Philosophy of Law**
- **PSCI 301 - Civil Liberties**
- **PSCI 303 - Constitutional Law and Civil Rights**
- **SOC 307 - Criminology Prerequisite: SOC 101 or equivalent.**
- **SOC 314 - Engendering Prison OR:**
- **WGST 314 - Engendering Prisons Prerequisite: SOC 101 or permission of the instructor.**

Non-U.S./International Focus:

- **CLAS 275 - Law and Trials in Ancient Society**
- **ENGH 313 - Human Rights in Literature and Film Prerequisites: ENGH 150 or ENGH 120 or permission of the instructor.**
- **ENGH 323 - Cinema and Social Justice Prerequisites: ENGH 150 or ENGH 120 or permission of the instructor.**
- **PHIL 330 – Philosophy of Law**
- **PSCI 248 - Special Topics in Human Rights**
- **PSCI 344 - Torture: Pain, Body, and Truth**
- **PSCI 365 - Seminar on Human Rights**
- **PSCI 383 - The United Nations System and the International Community Prerequisite: PSCI 104.**
- **RUSS 350 - Banned Books: Russian Literature and Censorship**

Drew University Fundraising Reports
FY2017

FY16 - FY17 Comparison

July 1, 2016 to March 31, 2017

	FY17			FY16			FY16 Final
	YTD Received	Goal	% to Goal	YTD Received	Goal	% to Goal	
Total Philanthropic Commitments	$9,711,531	$11,000,000	88%	$5,789,327	$12,000,000	48%	$12,599,203
Total Cash & Irrevocable Deferred Gifts	$3,219,915	$8,000,000	40%	$3,605,201	$9,000,000	40%	$5,643,199

Drew University Fundraising Reports
FY2017
FY17 By Purpose and Source
July 1, 2016 to March 31, 2017

Giving by Purpose

	Total Philanthropic Commitments	Cash and Irrevocable Deferred
Capital	$3,544,553	$169,203
Endowment	$2,183,511	$501,828
Restricted	$2,577,231	$1,314,776
Unrestricted	$1,406,236	$1,234,108
• *Annual Fund*	*$881,676*	*$709,548*
• *MEF*	*$524,560*	*$524,560*
Giving by Purpose Total	**$9,711,531**	**$3,219,915**

Giving by Source

	Total Philanthropic Commitments	Cash and Irrevocable Deferred
Trustees	$449,423	$444,059
Alumni	$7,433,421	$864,433
Friends	$730,833	$688,662
Corporations	$154,207	$147,352
Foundations	$150,051	$314,663
Other Organizations	$793,596	$760,746
Giving by Source Total	**$9,711,531**	**$3,219,915**

Drew University Fundraising Reports
FY2017

Annual Fund Report

July 1, 2016 to March 31, 2017

	Cash	Pledge Balance	Total	Goal	% to Goal	Average Gift
FY17	$708,798	$114,449	$823,247	$1,300,000	63%	$427
FY16	$690,067	$140,959	$831,026	$1,300,000	64%	$376
Increase (Decrease) from FY16	$18,731	($26,510)	($7,779)			$52
Increase (Decrease) Percentage	3%		(1%)			14%

Participation (All Funds)

	FY17				FY16			
	Percentage	**# of Donors**	**Goal**	**Donors Needed**	**Percentage**	**# of Donors**	**Result**	**Donors Needed**
CLA	10%	1326	26%	2,040	12%	1595	26%	n/a
DTS	10%	381	19%	307	12%	462	18%	n/a
CSGS	6%	142	14%	155	9%	200	13%	n/a

News from the Drew University Library
CLA Faculty Meeting
May 5, 2017

24/7 hours at the Library have begun!

For the 5th straight year, the Library is pleased to offer 24/7 hours during Reading Days and Exams. Our 24/7 hours began Wednesday, May 3, at 8:30 AM and will end Wednesday, May 10, at 9:00 PM. Library staff volunteers and Circulation staff assistants will keep the Library open during these extended hours. We'll also offer coffee and snacks twice during each late night shift, with support from the Office of Campus Life and Student Affairs.

When planning for Fall Courses, remember the Library!

WHEN you plan your courses for the Fall Semester (we know, not now),
IF you want your students to find outside resources,
AND you want those resources to be from reliable sources,
CONTACT the Library.

We're happy to:

- Design an online guide to sources
- Provide quick orientations to specific databases
- Teach a full session
- Do whatever fits your needs

Email jcaldwel@drew.edu, or your favorite librarian.

Special Collections and University Archives

Opening Reception for Exhibit Honoring Former Ambassador to South Korea

The Drew University Library will be hosting an opening reception for a new exhibit on the life of Richard Walker. A Drew graduate in 1943, Walker was named Ambassador to the Republic of Korea under President Ronald Reagan in 1981, serving until 1986. The exhibit, entitled "The Ambassador's Life: Richard 'Dixie' Walker in South Korea", will focus on the years that Walker spent in South Korea and highlight the work he did as the longest-serving Ambassador to the country. An opening reception for the exhibit will be held on **Wednesday, May 10 at 4:00pm** in the Methodist Archives Building and is open to the whole Drew community. It will include a

brief talk about by the exhibit curator as well as reflections on Walker's legacy and long-term impact on international studies in Asia.

The event on May 10 marks the opening of the exhibit, which will run until August 11. To attend, please RSVP at specialevents@drew.edu or call 973-408-3741.

Assessment Committee Report May 2017

During the 2016-17 academic year, the Assessment Committee met weekly. Over the year, we

- Reviewed the May 2016 Gen Ed Assessment plan developed by the Dean's Office together with Maia Gelashvili (included below).
- Researched all 30 peer and aspirant schools' Gen Ed programs and mission statements
- Worked on revising the Gen Ed framing (in conjunction with Drew's mission statement), A first draft was completed; we are waiting for the new Director of Assessment before we proceed further.
- Met with Diversity Faculty (Fall 16 and Spring 17); revised SLOS in conjunction with faculty.
- Researched AAC&U SLOS and rubrics.
- Met with Q Faculty (Fall 16 and Spring 17); discussed revising SLOS and a better measurement tool (standardized assignment)
- Met with Sandra Jamieson and Liz Kimball to discuss Writing Assessment
- Interviewed candidate for Director of Assessment. New person has been hired and will start in June.
- Recommended this committee become a standing committee. Will need Divisional Representation for I-III.

Discussion Draft 05/16/16
General Education Assessment Plan
College of Liberal Arts

General Education Program Overview

The general education program in the College of Liberal Arts serves the University's mission to offer its diverse community of learners a challenging and individualized education shaped by a deep-rooted culture of mentoring, thoughtful engagement with the world beyond its campus, and a steadfast commitment to lifelong cultivation of the whole person. The program consists of a major area of study, an off-campus experience, and earned credits in several specific required course categories. There are a number of different courses that could be chosen to meet particular general education requirements. Students work closely with their academic advisers to identify experiences that will support students' educational goals. Information about the general education program and requirements is available to students through their academic advisers and in the College Catalog.

General Education Program Goals

The College's general education program reflects six primary goals:

1. Critical Analysis and Reasoning
2. Oral and Written Communication
3. Quantitative Reasoning
4. Information Literacy

5. Diversity, Cultural and Global Awareness
6. Application of Learning

Student learning outcomes for each of these goals have been articulated and are presented in Appendix A. The specific experiences, that are required as part of the general education program support these goals and mastery of the articulated student learning outcomes; where applicable, majors reinforce these goals as well.

Assessment of General Education Student Learning Outcomes

The Dean's Office and the Curriculum and Academic Policy Committee oversee student learning assessment in the College. The assessment plan for the general education program utilizes an expert judgment model that has proven to be both successful and efficient at other institutions. On a pre-determined timeline (discussed in more detail below), the Dean's Office requests information from the individuals with whom students have worked most closely to complete general education requirements: the faculty instructors of their courses and/or the faculty supervisors of their off-campus experiences. These individuals have unique knowledge of students' strengths and weaknesses with regard to the relevant student learning outcomes, and they are uniquely positioned to comment on students' abilities in these areas at the point at which their work with those students comes to a close. Specifically, rubrics have been developed to assess each of the articulated student learning outcomes that comprise the general education program (discussed in more detail below). At the point at which each goal is assessed, faculty experts are asked to utilize the appropriate rubric to rate each individual student who has completed the required experience under their supervision. For example, when the three student learning outcomes associated with the diversity requirement are assessed, faculty members who are teaching courses that have been designated by the Curriculum and Academic Policy Committee as Diversity courses will be asked at the close of the course to rate each student in the course on the rubrics that reflect those outcomes. As the individuals who have worked most closely with students who are developing these skills, the faculty members have expert knowledge about the abilities and competencies of those students. Having just completed the evaluation of multiple examples of students' work in these areas, they are also exceptionally qualified to make these ratings at the moment in time when they are asked to do so.

The expert judgment approach to assessment of student learning has been found to be simple, straightforward, efficient, and sustainable. This approach is also more defensible than using a single selected artifact to assess students' progress on articulated student learning outcomes; a single artifact may or may not be representative of students' abilities and may be particularly difficult to judge outside of the specific context in which it was created (which typically happens when using other general education assessment approaches). Finally, this approach is highly flexible in that it allows for the collection of different kinds of assessment data. At step 1, experts assess students utilizing rubrics that are closely aligned with the articulated student learning outcomes. However, should an issue be uncovered that deserves additional exploration (e.g., which kinds of quantitative problems cannot be defined well by students), the specificity of the questions asked of the experts can be refined in subsequent data collection efforts. This step 2 process allows for more detailed data to be gathered, which helps the oversight bodies to determine the exact nature of curricular or other changes that are needed in order to increase

student learning. It is also possible to modify the entire process outlined here and instruct faculty experts to have in mind a particular artifact as they are completing the rubrics (e.g., a final course paper or project). This approach would more closely mirror traditional assessment data collection efforts.

Data Collection & Analyses

Expert faculty members are asked to complete the ratings of their students at the close of the students' relevant experience, which is often at the end of a semester. Ratings are collected electronically; faculty members receive an online survey asking them to complete the appropriate rubric for the outcome that is being assessed for each student enrolled in their course or completing their experience. The data is then compiled by the Dean's Office and reviewed and processed by the Curriculum and Academic Policy Committee. These bodies prepare required reports, and make recommendations to the faculty about the ways in which the data can be utilized to improve student learning and students' academic experiences. Reports are shared with the faculty more broadly utilizing existing governance structures, and with the University Student Learning Assessment Committee.

Timeline

The six general education goals are assessed on a three-year rotating basis. The timeline for assessment of the articulated student learning outcomes associated with each goal, along with target dates for analysis and dissemination of the findings, and action plans to improve student learning, are presented in Appendix B.

Rubrics

The rubrics that are utilized to assess each student learning outcome are based on the AAC&U VALUE rubrics.

Courses in the College curriculum that can be used to meet particular general education requirements are designated as such by the Curriculum and Academic Policy Committee. This committee has also created a curricular map linking the six general education goals to the specific requirements of the general education program; this map is utilized to determine the places where assessment data is collected from faculty experts utilizing the developed rubrics. The complete curricular map is presented in Appendix C, and a table outlining the specific places where assessment data is collected is presented in Appendix D. In short, Critical Analysis and Reasoning, Information Literacy, and Oral and Written Communication will be assessed at the completion of the capstone experience, which is required of all students regardless of major, and which is typically taken close to the point of graduation where it makes the most sense to assess skills that have been introduced and developed throughout the curriculum. Diversity, Cultural and Global Awareness and Quantitative Reasoning will be assessed at the completion of courses designated to meet these requirements by the Curriculum and Academic Policy Committee. Application of Learning will be assessed at the completion of experiences designated to meet the off-campus requirement by the Curriculum and Academic Policy Committee.

Performance Indicators

Each assessment rubric includes five performance categories: Excellent (4), Proficient (3), Developing (2), Rudimentary (1), and Absent (0). We expect 85% of our students to receive a score of 3 or 4 in Critical Analysis and Reasoning, Oral and Written Communication, and Information Literacy, which are assessed in capstone experiences. In Quantitative Reasoning, Diversity, Cultural and Global Awareness, and Application of Learning, which are assessed in the appropriate courses or experiences, we expect 75% of our students to receive a score of 3 or 4. Performance indicators for goals assessed in the capstone were set a little higher than for goals assessed in general education courses and in the off-campus experience because students who are in their capstone experience should be better prepared and more fully developed compared to when outcomes are assessed during courses taken at any other point. Desired performance standards for each general education student learning outcome are presented in Appendix D.

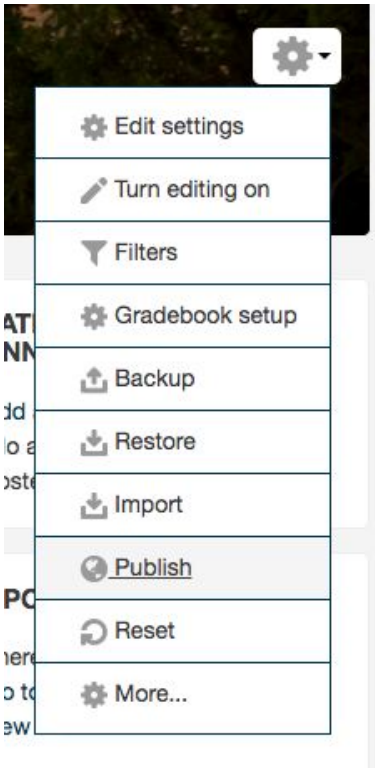
Appendix A – Timeline for Assessment of General Education Student Learning Outcomes

Assessment Plan General Education								
	AY 2015/2016 - Year 1		**AY 2016/2017 - Year 2**		**AY 2017/2018 - Year 3**		**FY 2018/2019 - Year 1**	
	F 15	**Spring 2016**	**Fall 2016**	**Spring 2017**	**Fall 2017**	**Spring 2018**	**Fall 2018**	**Spring 2019**
Undertake Assessment		Diversity	Quantitative	Writing	Language	Breadth	Off-Campus and capstone	Diversity
Analyze and Disseminate Findings			Diversity	Q	W	Language	Breadth	Off-Campus and Capstone
Close the Loop				D	Q	Writing	Lang	Breadth

Moodle 3.2

For Fall of 2017, we are replacing our current Moodle environment with a new version, Moodle 3.2. The courses for Fall 2017 will be created in the new environment on July 10th. If you're interested in working on your course for Fall 2017 before July 10th, we ask that you contact us by filling out a Moodle help request at **help.drew.edu**, so we can further assist you.

Moodle 3.2- New Feature Highlights



Course editing

- A gear menu is present at the top of the course page.
- Here you can turn on editing and locate other important aspects of the course.

Assignment: Overrides

- Deadlines for assignments may now be overridden for individual students and groups (in the same way as for quizzes) with this new feature.

Forum: Discussion locking

- It's now possible to lock discussions after a specified time.

If you have any questions regarding this topic, please call the Service Center at (973)-408-4357 or create a help ticket at help.drew.edu.

The Drew Review

The Drew Review is the annual research journal for the undergraduates of the Drew University College of Liberal Arts, publishing undergraduate research from the previous calendar year. *The Drew Review* is targeting high quality, creative research papers ten pages or more in length. The papers should be 'A' quality and have original and interesting theses. Overall, our mission is to showcase the intellectual vibrancy of the students of the CLA.

IMPORTANT DATES

While you're grading outstanding writing from this past semester, consider nominating your best essays for the Drew Review!

October 16, 2017- Fall Semester Submission Deadlines. Email nominations of outstanding essays to drewreview@drew.edu. Please CC the student you are nominating.

Prestigious Scholarship Deadlines AY 2017-18

Scholarship	Eligibility	Drew Deadline	Tentative Scholarship Deadline
Beinecke	Juniors	1-Feb	16-Feb
Carnegie	Seniors	30-Nov	15-Jan
Fulbright	Juniors, Seniors	8-Sep	10-Oct
Goldwater	Sophomores, Juniors	13-Dec	30-Jan
Marshall	Seniors	11-Sep	2-Oct
Rhodes	Seniors	18-Sep	6-Oct
Truman	juniors (invitation only)	15-Jan	2-Feb

Additional information and details about other scholarships can be found on the CLA Dean Prestigious Scholarships, Fellowships and Grants web page:

http://www.drew.edu/cla/cla-deans-office/prestigious-scholarship-and-fellowships/

Faculty Contact: Stephen Dunaway, Director of Baldwin Honors
sdunaway@drew.edu phone: 973-408-3119

The Art Department

proudly presents the

Senior Exhibition

May 5 - May 10, 2017

Opening Reception May 5, 5:30 - 7:30 PM

Korn Gallery and Senior Studio

Jessica Benitez
Eliza Borgia
Cornelius
Dominique Butler
Emily Cataquet
Jordan Cheeseman
Marcela Claros
Brooke DeSantis
Kayla D'Oyen
Christian Dugan
Christania Hemmings
Allie McMahon
Bayleigh Murphy
Nate Tazewell
Vic Stepka

Curator: Jason Karolak

Gallery Hours 9:30 AM - 5:00 PM
For more information please call (973) 408 - 3758
www.drew.edu/korngallery

Sturgis Standard Code of Parliamentary Procedure

Summary:

Basic Rules of Precedence:

1. When a motion is being considered, any motion of higher precedence may be proposed, but no motion of lower precedence may be proposed.
2. Motions are considered and voted on in reverse order to their proposal. The motion last proposed is considered and disposed of first:

Common Motions in Order of Precedence:

LANGUAGE		Interrupt Speaker?	Second Needed?	Motion Debatable?	Vote Needed?
Privileged Motions: Motions of urgency entitled to immediate consideration.					
1.*Adjourn the meeting.	I move that we adjourn.	NO	YES	YES**	MAJORITY
2. *Recess the meeting.	I move that we recess until…	NO	YES	YES**	MAJORITY
3. Questions of Privilege (Noise, temperature, etc.)	I raise the question of privilege….	YES	NO	NO	Decided by presiding officer
Subsidiary Motion: Motions which alter the main motion, or delay or hasten its consideration.					
4. Postpone temporarily	I move we table the motion..	NO	YES	NO	MAJORITY
5. Close debate	I move to close debate and vote immediately.	NO	YES	NO	TWO THIRDS
6. *Limit or extend debate	I move that the debate on this question be limited to…	NO	YES	YES**	TWO THIRDS
7. *Postpone to a certain time	I move we postpone this matter until…	NO	YES	YES**	MAJORITY
8. *Refer to committee	I move we refer this matter to committee.	NO	YES	YES**	MAJORITY
9. *Amend	I move that we amend this motion by…	NO	YES	YES**	MAJORITY
Main Motions: Motions bringing substantive proposals before the assembly for consideration and action.					
10. * Main motions and restorative main motions	I move that….	NO	YES	YES	MAJORITY

The following motions can be offered whenever they are needed and have no order of precedence. They should be handled as soon as they arise.

LANGUAGE		Interrupt Speaker?	Second Needed?	Motion Debatable?	Vote Needed?
Incidental Motions: Motions that arise incidentally out of the business at hand. They relate to matters incidental to the conduct of the meeting.					
1. Appeal a decision of the chair	I appeal the chair's decision.	YES	YES	YES	MAJORITY
2. Suspend the rules	I move to suspend the rules and...	NO	YES	NO	TWO THIRDS
3. Point of Order	I rise to a point of order	YES	NO	NO	Decided by presiding officer
4. Raise a question relating to procedure.	I rise to a parliamentary inquiry.	YES	NO	NO	Decided by presiding officer
5. Withdrawal of a motion	I move to withdraw my motion.	YES	NO	NO	MAJORITY
6. Separate a multi-part question for voting purposes	I move division on the question.	NO	NO	NO	MAJORITY

*Can be amended

**Debatable if no other motion is pending.

Note: General Consent is a way of saving time by avoiding votes on routine or non controversial matters. After a motions has been moved and seconded the presiding officer may ask if there are any objections. If anyone objects, a vote must be taken on the action. If there are no objections, the matter has been decided by general consent. The presiding officer may also propose actions by general consent without any motion. If anyone immediately objects, the question must be stated and voted on in the usual way