

Arts & Sciences Faculty Meeting
May, 7th 2020
AGENDA

LEARN ABOUT WHAT STUDENTS EXPERIENCED THIS SEMESTER IN DREW 110
INVITATION TO A PRE-MEETING SESSION: 12:45-1:10

Daniel Pascoe will show a quick sample of Drew 110 student final presentations
and will lead a brief discussion of outcomes of Drew 110

CALL TO ORDER: 1:15 p.m.

Debra Liebowitz

APPROVAL OF MINUTES

Maria Masucci ----- pp. 2

DEAN'S UPDATES

Debra Liebowitz

Retiring Faculty Encomiums

George-Harold Jennings, Psychology
Dan LaPenta, Theatre
Alan Rosan, Chemistry

ACTION ITEMS:

Conferral of Degrees

Stephanie Caldwell

Finance major and revisions to Data Analytics

Rita Keane ----- pp. 25

University Faculty Handbook- Committee Section

Ed Baring-----pp. 75

Faculty Handbook Section -- Rights and Responsibilities

Sarah Abramowitz-----pp. 6

CoF Handbook changes (Division structure)

Sarah Abramowitz-----pp. 10

CoF Handbook changes (Teaching Faculty Policy update)

Sarah Abramowitz-----pp.11

DISCUSSION:

Independent Study Policies

Juliette Lantz----- pp. 14

Immersive Experiences - expanded system

Juliette Lantz -----pp. 21

Online CSGS graduate degrees

Ryan Hinrichs

REPORTS:

Curricular Report

Rita Keane ----- pp. 25+72

Enrollment Management

Bob Herr ----- pp. 61

Middle States

Hilary Kalagher ----- pp. 62

Academic Standing Committee Report

Scott Morgan----- pp.63

Center for Academic Excellence Report

Nora Boyer----- pp. 65

Academic Integrity Committee Report

Judy Redling----- pp.69

OLD BUSINESS/NEW BUSINESS:

ANNOUNCEMENTS:

Annual Reports due dates change

Textbook orders update

Maria Masucci

ADJOURNMENT

Drew University
Minutes of Arts and Sciences Faculty Meeting
April 24, 2020

In Attendance: Sarah Abramowitz, Erik Anderson, Christopher Andrews, Christopher Apelian, Carolina Arango-Vargas, Lee Arnold, Di Bai, Alex Bajcz, Edward Baring, Brianne Barker, Timothy Barnum, Jim Bazewicz, Jeremy Blatter, Marc Boglioli, Lisa Brenner, Barry Burd, Monica Cantero-Exojo, James Carter, Timothy Carter, Adam Cassano, Chris Ceraso, Jill Cermele, Miao Chi, Kimberly Choquette, Darrell R. Cole, Graham A. Cousens, Allan Dawson, Alex de Voogt, Patrick Dolan, Stephen Dunaway, Christopher Fazen, Sophia Fortune, Kimani Fowlin, Jonathan Golden, Summer Harrison, Emily Hill, Ryan Hinrichs, Shakti Jaising, Sandra Jamieson, George-Harold Jennings, Jason Jordan, Lisa Jordan, John Jordan, Hilary Kalagher, Jason Karolak, Steve Kass, Joshua Kavaloski, Marguerite Keane, Caitlin Killian, Roger Knowles, Wendy Kolmar, Amy Koritz, Minjoon Kouh, Margaret Kuntz, Jessica Lakin, Juliette Lantz, Bjorg Larson, Seung-Kee Lee, Neil Levi, Debra Liebowitz, Jens Lloyd, Jinee Lokaneeta, Yi Lu, Lisa Lynch, Yahya Mete Madra, Maria Masucci, Patrick McGuinn, Christina McKittrick, Rosemary McLaughlin, Christopher Medvecky, Ziyuan Meng, Joanna Miller, Sangay Mishra, Scott Morgan, John Muccigrosso, Rory Mulligan, Philip Mundo, Robert Murawski, Adijat Mustapha, Sean Nevin, Nancy Noguera, Emanuele Occhipinti, Jennifer Olmsted, Mary-Ann Pearsall, Karen Pechilis, Marie-Pascale Pieretti, Gerard Pinto, Muriel Placet-Kouassi, Jonathan Reader, Judy Redling, Kimberly Rhodes, Raul Rosales, Alan Rosan, Jonathan Rose, Susan Rosenbloom, Maliha Safri, Paris Scarano, Claire Sherman, Ellie Small, Bernard Smith, Rebecca Soderholm, Leslie Sprout, Raymond Stein, Sharon Sundue, James Supplee, Phoebe Tang, Marc Tomljanovich, Kristen Turner, Merel Visse, Trevor Weston, Tammy Windfelder, Carlos Yordan, Courtney Zoffness

Others in Attendance: MaryAnn Baenninger, Margery Ashmun, Matthew Beland, Sunita Bhargava, Andrew Bonamici, Nora Boyer, Barb Bresnahan, Jody Caldwell, Stephanie Caldwell, Stacy Fischer, Cordelza Haynes, Bob Herr, Kathy Juliano, Alex McClung, Frank Merckx, Joanne Montross, Daniel Pascoe-Aguilar, Irina Radeva, Danielle Reay, Candace Reilly, Brian Shetler, Shawn Spaventa, Gregory Townsend, Javier Viera, Kristen Williams

The meeting was called to order at 3:22pm.

On April 23, 2020, President Baenninger announced to the Drew community that Debra Liebowitz, Provost and Dean of the College of Liberal Arts and the Caspersen School of Graduate Studies will be leaving the University on June 12, 2020 to become the provost at Quinnipiac University. MaryAnn remarked “This appointment is a culmination of her work at Drew as a scholar, teacher, advocate, partner, team-builder, steward, and collaborator with students, faculty, staff, trustees, senior leadership, alumni, and community members alike. All of us in our extended Drew family will miss Deb’s leadership, commitment, and spirit; however, it’s clear that the Quinnipiac position is the next and proper step—and a wonderful opportunity—in her trajectory as a university leader.”

At the Zoom conference meeting, several faculty members took this opportunity to pay tribute to Debra by expressing their appreciation and admiration for her. A virtual toast offered best wishes to Debra to celebrate this special achievement. Debra was grateful for all the lovely sentiments and

added that while she is very excited about this opportunity she regrets that she is leaving in the midst of the COVID-19 crisis.

President's Announcements

An email will be sent out today to students regarding several issues that are uppermost on their minds. The communication will include:

- Information and the process for refunds on room and board.
- A procedure for students to recover their possessions that were left in the residence halls.
- Students will also hear about the Federal Care Act. Drew will receive money as part of emergency funding for students which must go directly to those students.
- The announcement about Commencement that is tentatively scheduled for August 1st.
- We will also be presenting a virtual commencement at 10:30 am on May 9th to mark the original commencement date.

Cabinet, APBC and the DVT Co-vid group is fleshing out a framework for enhancing our approach to virtual learning, so it is durable if we do go online for the Fall. The academic piece will be led by the Provost's office.

The President has been receiving letters of thanks for all that our community has done and she is forwarding them to individuals mentioned.

The Dean's Announcements

1. The Day of Scholars event was a great success. Debra expressed her appreciation to the faculty for their engagement during the new virtual experience. The afternoon would not have been possible without the help of Shawn Spaventa, Megan McHugh, Ellen Whiteman and Justin Jackson. Faculty is encouraged to look at the senior art show on Instagram. The Out of the Box virtual theater event was also held and was well received by those who participated. Lastly, the Drew 110 final presentations were an excellent collaboration between Academic Affairs and Student and Campus Life. The student's presentations were an important demonstration what they were learning in this course.
2. In preparation for Fall 2020, we have to plan to be online even if we aren't fully remote. We will need to do training and planning to be prepared. There will be two faculty development workshop days on May 13 and 15th. Segments of this training will be University-wide and others school specific which will include some programmatic assessment. The details for these two days are forthcoming.
3. The awards for the three schools will be announced in conjunction with the virtual ceremony on May 9th. The Communication department will be pushing out press releases to local publications for those student who have received an award. Alexia de Fays will be in touch with the A & S faculty for information on the recipients.
4. Summer courses are not eligible for the new P/LP/U grading policy.

5. As a reminder some students are fasting for Ramadan.
6. We understand that a growing number of students are unresponsive to faculty outreach. We ask that you take the following actions:
 - Submit a Beacon alert, if you haven't already, confirming when the student became unresponsive and whether or not the student could pass the class based on work completed.
 - Submit an incomplete request and do not submit a grade for a student who has been unresponsive. This will allow additional time to try to connect with the student and could potentially provide an opportunity for them to complete the course upon improvement in their circumstances or to submit a late request for the P/LP/U grading option.

Action Items

Curricular Action Items: Rita Keane

1. The new **Action Scholars Program** has three focus areas that include civic, global, and entrepreneurial engagement. The program was discussed in May 2019 and the concerns that were expressed at that time were reviewed in meetings with the appropriate constituents. The document presented today went through the CAPC process. There are some concerns regarding the faculty workload and the need to carefully plan the use of resources. This matter was reviewed in Dean's Council and they were satisfied that the workload could be resolved. The faculty voted unanimously to approve the New Action Scholars program as presented in the faculty meeting packet of April 24, 2020.
2. The **Marketing major** was approved in concept previously by the faculty. The Student Learning Objectives of the program are what is for review and vote in this discussion. Broad concerns were expressed regarding the lack of engagement in the curriculum with the Arts and Humanities. There was a call for the vote to approve the SLO's as they are stated now with the understanding that there would be collaboration with the Arts and Humanities Departments. The motion was approved by the faculty with one abstention.
3. The **Accounting major** curriculum was for review and vote based on the information in the faculty meeting packet. Comments included that the program requires two new full time hires and that with the current hiring freeze this means that we are introducing new programs without the resources. It was clarified that only one hire is required for AY20-21. Much research and thought was given to offering an Accounting major for Drew. Review of the data indicates that Drew is missing an opportunity for applicants and enrollment of new students by not offering this program. The vote was called for the Accounting major curriculum as stated in faculty meeting packet for April 24, 2020 and the motion was approved by the faculty with one abstention.
4. The Bachelor of Science in **Finance** program will be presented to the Board of Trustees at their May meeting. The faculty expressed concerns that the major was rushed through the process and did not undergo the same scrutiny as the Marketing and Accounting majors. A suggestion was made to postpone the vote. After some discussion on the importance to the admission cycle to be able to offer this program for Fall 2020, the faculty called for the vote

to approve offering the major with the curriculum to be approved at the May faculty meeting. The motion was unanimously approved.

Reports

Curricular – No questions on the report.

Committee on Faculty – Announcement of Recommendations

For emeritus status:

George Harold-Jennings
Alan Rosan

For promotion to Professor:

Lee Arnold

For tenure:

Alex de Voogt (He was hired at the Associate
Professor level)

For promotion to Associate Teaching
Professor:

Lisa Jordan
Joanna Miller
Chris Medvecky

Congratulations to all candidates. The Committee's recommendations have been forwarded to the Provost and to the President for presentation to the Academic Affairs Committee of the Board of Trustees and a vote by the whole board on May 16th.

Enrollment Management

1. In keeping with the current trend of other institutions, Drew has extended the deadline to deposit for Fall 2020 to June 1.
2. Owing to the extended date, we are a little behind last year's numbers for deposits. There has been an increase in the appeals for financial aid. Our current discount rate is 58% which is just a little higher than our norm of 57.1%.
3. The good news is that Drew is at a ten year high for applications and admits.
4. In order to avoid the summer "melt", Admissions is beginning in early May to engage with deposited students. Summer orientation will be a remote program.
5. Bob Herr expressed his appreciation to the faculty for their engagement with prospective students and allowing them to attend their classes.

Please see all the other reports from the faculty meeting packet. The discussion on independent study courses will be tabled to the May Arts and Sciences faculty meeting.

The meeting was adjourned at 5:26 PM

Respectfully submitted,

Joanne B. Montross

D R A F T FOR THE FACULTY

Version April 29, 2020

Faculty Rights, Responsibilities and Professional Ethics

Drew University's mission is 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. Through its distinctive emphasis on the reciprocity of knowledge, experience, and service, Drew prepares its students to flourish both personally and professionally as they add to the world's good by responding to the urgent challenges of our time with rigorous, independent, and imaginative thought. The Drew faculty bears primary responsibility for preserving the conditions necessary to advance this mission, including protection of free expression and inquiry; participation in the governance of the University; the application of fair and consistent standards and processes in matters of promotion and tenure; and adherence to a shared set of ethical principles governing faculty members in relation to each other, to their students, and to the University and its staff members.

Drew University recognizes that academic freedom is a fundamental right. Academic freedom can only flourish in an environment where faculty follow the highest ethical standards. We therefore join our colleagues in the Academy by adopting the language of the AAUP (American Association of University Professors) in setting forth the definitions and processes by which these concepts shall be understood, practiced and adjudicated¹.

1. Academic Freedom and other faculty rights

Drew's policy on academic freedom follows best practices as articulated by the American Association of University Professors.² The italicized text is taken directly from AAUP.

- a. *Teachers are entitled to full freedom in research and in the publication of the results, subject to the adequate performance of their other academic duties; but research for pecuniary return should be based upon an understanding with the authorities of the institution.*
- b. *Teachers are entitled to freedom in the classroom in discussing their subject, but they should be careful not to introduce into their teaching controversial matter which has no relation to their subject. Limitations of academic freedom because of religious or other aims of the institution should be clearly stated in writing at the time of the appointment.*
- c. *College and university teachers are citizens, members of a learned profession, and officers of an educational institution. When they speak or write as citizens, they should be free from institutional censorship or discipline, but their special position in the community imposes special obligations. As scholars and educational officers, they should remember that the public may judge their profession and their institution by their utterances. Hence they should at all times be accurate, should exercise appropriate restraint, should show respect*

1

2

for the opinions of others, and should make every effort to indicate that they are not speaking for the institution.

Other faculty rights include:

- d. Faculty have the right to processes of review and promotion that are fair, consistent, and in accordance with all relevant written university policies that are in compliance with the governing Committee on Faculty Handbooks and the Faculty Personnel Policy.
- e. Faculty have the right to participate in shared governance of the University as set forth in the By-Laws of Drew University.
- f. Faculty have intellectual property rights as specified in the Intellectual Property Policy. (link will be removed in the final document
<https://uknow.drew.edu/confluence/display/copyright/Drew+University+Intellectual+Property+Policy>)

The ethical principles shared by members of the Drew faculty derive from many sources, both internal and external, and they are expressed in Drew's governing documents and faculty policies. The purpose of this part of the document is to summarize those principles and provide examples of conduct that is consistent with the professional behavior that they require. The examples of conduct listed here are not exhaustive, and, if a faculty member's behavior violates the faculty's shared principles, they may be subject to sanction, whether or not the behavior is specifically described below. Repeated instances may lead to more serious sanctions.

2. Responsibilities and Professional Ethics of the Faculty

a. Teaching and Standards

Guiding Principles:

"As teachers, professors encourage the free pursuit of learning in their students. They hold before them the best scholarly and ethical standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors make every reasonable effort to foster honest academic conduct and to ensure that their evaluations of students reflect each student's true merit. They respect the confidential nature of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory treatment of students. They acknowledge significant academic or scholarly assistance from them. They protect their academic freedom." (AAUP Statement on Professional Ethics)

Examples of conduct consistent with these principles:

1. Meeting the responsibilities of instruction and supervision, including:
 - (i) Contributing to the teaching mission of the University as reasonably required by the faculty member's affiliation.
 - (ii) Adhering to the policies of the department, program, or school regarding the conduct of courses or deviating only with prior approval from the Department Chair, Program Director, or Dean.

- (iii) Evaluating student work by criteria directly reflective of academic performance or academic requirements.
 - (iv) Meeting academic deadlines including, submitting student grades to the registrar and verifying rosters by specified deadlines.
 - (v) Providing career support such as agreed upon letters of recommendation by specified deadlines.
2. Meeting standards of teaching as articulated in the governing Committee on Faculty Handbooks and the University Faculty Personnel Policy.
 3. Adhering to University policies such as FERPA, Title IX or others addressed in the University Employee Handbook.
 4. Treating students fairly, appropriately, and without discrimination, including harassment, against a student on political grounds, or for reasons of sex, race, color, religion, national or ethnic origin, age, disability, veteran status, national or ethnic origin, sexual orientation, or gender identity or expression.
 5. Using the position, rank, or powers of a faculty member to treat students with respect and with consideration for their well being and refraining from using that position to coerce, exploit, intimidate, bully or harm a student.

b. Scholarship and Professional Standards

Guiding principles:

“Professors, guided by a deep conviction of the worth and dignity of the advancement of knowledge, recognize the special responsibilities placed upon them. Their primary responsibility to their subject is to seek and to state the truth as they see it. To this end professors devote their energies to developing and improving their scholarly competence. They accept the obligation to exercise critical self-discipline and judgment in using, extending, and transmitting knowledge. They practice intellectual honesty. Although professors may follow subsidiary interests, these interests must never seriously hamper or compromise their freedom of inquiry.” (AAUP Statement on Professional Ethics)

Examples of conduct that is consistent with these principles:

1. Conducting scholarship and research ethically.
2. Using research funds appropriately.
3. Adhering to the law, Drew policies, and professional requirements protecting human or animal research subjects (link will be removed later:
<https://sites.google.com/drew.edu/irb/>).
4. Appropriately attributing work by students, colleagues, or others.

5. Meeting scholarship obligations as articulated in the governing Committee on Faculty Handbook.

c. Standards with Respect to Service, Shared Governance, Community Members³, and the University

Guiding Principles:

“As colleagues, professors have obligations that derive from common membership in the community of scholars. Professors do not discriminate against or harass colleagues. They respect and defend the free inquiry of associates, even when it leads to findings and conclusions that differ from their own. Professors acknowledge academic debt and strive to be objective in their professional judgment of colleagues. Professors accept their share of faculty responsibilities for the governance of their institution.” (AAUP Statement on Professional Ethics)

Examples of conduct that is consistent with these principles:

1. Adhering to Drew’s policies such as those found in the University Employee Handbook.
2. Meeting the generally accepted responsibilities of shared governance, service obligations, and annual reflections as articulated in the governing Committee on Faculty Handbooks.
3. Using University resources or facilities only for university sanctioned purposes.
4. Using the position, rank, or powers of a faculty member to treat community members with respect and with consideration for their well being and refraining from using that position to coerce, exploit, intimidate, bully or harm a community member.
5. Treating members of the Drew community fairly and respectfully and refraining from discrimination and harassment for reasons of sex, race, color, religion, national or ethnic origin, age, disability, veteran status, national or ethnic origin, sexual orientation, or gender identity or expression.

Proposed Changes to the University Faculty Arts and Sciences Committee on Faculty Handbook

We are proposing two changes to the University Faculty Arts and Sciences Committee on Faculty Handbook. The first updates the membership of the committee to reflect the new divisional structure. The second eliminates the internal evaluation letter for non-tenure track promotions to Associate Teaching Professor.

- 1) This change updates the University Faculty COF Handbook description of the composition of the COF to reflect the new division structure.

Original text:

The Committee shall consist of one tenured faculty member from each division elected by the faculty and a chairperson elected as a member at large.

Replacement text:

The Committee shall consist of four faculty members, one from each of divisions I and II, and two from division III, elected for a two-year term. Dean's Council will ensure that the two elections for Division III's members are from different departments and programs and represent the disciplinary breadth of a division that encompasses the creative arts, humanities, and languages. Whenever possible, elections shall be held in such a way that two faculty members will be in the second year of service and two in the first.

For the interested reader, for context, the full text of this section with tracked changes is provided at the end of this document.

- 2) This change eliminates the internal evaluation letter for non-tenure track promotions to Associate Teaching Professor.

We propose that we eliminate the requirement that candidates for promotion to Associate Teaching Professor include an internal evaluation letter with their promotion materials. The main reason is that the service requirements for non-tenure track faculty are looser and may not extend outside of the department, so that the combination of the candidate's self-evaluation and the departmental letter are sufficient to capture the service contributions in most cases. We did not find that the benefits of the letter outweighed the costs to produce it.

This change is for promotion to Associate Teaching Professor only. Candidates for promotion to Teaching Professor are expected to perform service outside of the department.

For the interested reader, the full text of this section with tracked changes is provided at the end of this document.

Complete text of the section of the University Faculty Arts and Sciences Committee on Faculty Handbook section giving the charge and composition of COF.

1.A. *Charge and composition of the Arts and Sciences Committee on Faculty*
(Arts and Sciences Faculty Regulations, 200.8 b, Committee on Faculty)

The Arts and Sciences Committee on Faculty shall consider all matters having to do with faculty promotion, tenure, retention, and academic freedom within Arts and Sciences. On or before the date required by the *Faculty Personnel Policy*, the Committee shall consider each member of the faculty eligible for promotion, tenure, reappointment or termination, and report its recommendation to the Dean of Arts and Sciences.

~~The Committee shall consist of one tenured faculty member from each division elected by the faculty and a chairperson elected as a member at large. The Committee shall consist of four faculty members, one from each of divisions I and II, and two from division III, elected for a two-year term. Dean's Council will ensure that the two elections for Division III's members are from different departments and programs and represent the disciplinary breadth of a division that encompasses the creative arts, humanities, and languages. Whenever possible, elections shall be held in such a way that two faculty members will be in the second year of service and two in the first.~~

Only full professors and those associate professors with tenure who have begun their third year and served either as department chair or on a major committee are eligible for election; no more than two associate faculty may serve on the committee simultaneously. No current member shall be considered for promotion by the committee.

In addition, the Dean of Arts and Sciences is a non-voting, *ex officio* member of the Committee who participates in the Committee's deliberations.

Divisional representatives shall serve two years. Every other year, the faculty shall elect a chairperson from nominations. Normally, a minimum of two nominations will be presented by the Committee, which will consider those faculty who have served on the Committee for two years within the past five years. The chair shall serve for two years.

Complete text of the section of the University Faculty Arts and Sciences Committee on Faculty Handbook section giving the schedule and procedure for non-tenure track faculty promotion to Associate Teaching Professor.

Appendix III

Schedules and Procedures Pertaining to Non-Tenure-Track Faculty Reappointment and Promotion Reviews

III.4. Promotion from Assistant Teaching Professor to Associate Teaching Professor

Assistant Teaching Professors at Level 2 are eligible for review for Promotion to Associate Teaching Professor by the Committee on Faculty after six years of continuous full-time teaching. Following a successful review, the promotion is effective in year 7. Promotion to Associate Teaching Professor carries a salary increase. Thereafter, contract renewal review by the

Committee on Faculty will occur every 3 years with possible contracts of up to 3 years, subject to the needs of the institution and the department or program.

III.4.A. Schedule and required information for promotion from Assistant Teaching Professor to Associate Teaching Professor

Materials for Promotion to Associate Teaching Professor:

In its review of an Assistant Teaching Professor Level 2 for promotion, the Committee on Faculty will consider the recommendation letter from the department or program and any individual letters from tenured members of the department or program, a reflective self-evaluation of teaching, service and integrity from the candidate, annual reports, student evaluations, peer teaching observations, ~~and the reports of one internal evaluator outside the department or program commenting on the service contributions of the candidate for promotion. According to the schedule set forth in the University Committee on Faculty handbook, the Department Chair (or equivalent) in collaboration with the candidate will submit to the Dean a list of potential Internal Reviewers.~~

| Schedule and Required Information in Promotion to Associate Teaching Professor Process | |
|--|---|
| On or about: 04/15 | DEAN: will notify eligible candidates who will be in their sixth year of service at rank of Assistant Teaching Professor Level 2, department chairs and tenured department colleagues of all eligible candidates. The Dean requests materials from candidate (due on or about September 01), and a list of one internal reviewer and one alternate from Chair (deadline for submission of reviewers is on or about August 15). |
| On or about: 8/15 | CHAIR: or another designated tenured member of the department, in consultation with the candidate, submits the names of one internal reviewer and one alternate able to evaluate aspects of the candidate's record of service and teaching if appropriate. The names of proposed evaluators should be accompanied by a brief rationale identifying the reasons why he or she was selected, using the form provided. |
| On or about: 9/01 | CANDIDATE: provide materials to Dean's Office. These include current curriculum vita; annual report with discussions of teaching and service, and a reflective self-evaluation of teaching, service and integrity. DEAN: shall make available the cumulative record of student evaluations and annual reports from the review period; evaluations from previous reviews (if applicable); and candidate and department Chair's materials for Arts and Sciences Committee on Faculty review. |

Formatted Table

| | |
|-------------------------------|--|
| <p>On or about: 09/15</p> | <p>DEAN: sends letters to one internal (non-departmental/program) referee asking them to evaluate the candidate's performance with particular attention to the candidate's record of service and teaching if appropriate. (Deadline for submission is October 15).</p> <p>DEAN: Requests letters of recommendation from the chair and all tenured members of the department/program. If the candidate holds a joint appointment or serves multiple departments and/or programs, additional letters will be requested from those Chairs and / or program directors and from appropriate tenured faculty. (Deadline for submission: on or about October 15).</p> <p>Internal reviewers may consult the material submitted by the candidate along with other non-confidential dossier materials available in the Dean's office.</p> |
| <p>10/15</p> | <p>CHAIR/DEPARTMENT: submits letter of recommendation. The letter must be signed by and reflect the views of all the full-time tenured faculty of the department (both pro and con). The tenured members of the department/program may choose to submit a joint statement as well as or in addition to individual letters. These faculty are asked to comment explicitly on how they assess the candidate with respect to integrity, teaching effectiveness, and contributions to the life and task of the University as defined in the Drew University Faculty Handbook for SERVICE for non-tenure-track faculty in <i>Section 1.3.1.A. Definition of Service</i> and what role they see the candidate playing in meeting the present and future needs of the department and/or university.</p> <p>INTERNAL REFEREES: submit letters of recommendation to the Dean's Office.</p> |
| <p>On or about: 04/30</p> | <p>ARTS AND SCIENCES COMMITTEE ON FACULTY: deliberates and makes its recommendation(s) to the Dean. The COF will summarize its reasoning in a formal statement which the Chair of COeF will forward to both the Dean and the President.</p> |
| <p>On or about: 04/30</p> | <p>DEAN: makes his or her recommendation and transmits the recommendations of the Arts and Sciences Committee on Faculty to the President. The President in turn makes his or her recommendation to the Board of Trustees.</p> |
| <p>On or about: 05/15</p> | <p>Candidate and Chair notified by the Dean of the Trustees' decision regarding candidate's promotion. The candidate is encouraged to meet with the Dean to discuss any issues raised during the decision process.</p> |

Change to Independent Study and Individualized Instruction Process

I. Overview

Need to standardize the process of students requesting independent study/individualized instruction requests submitted to the Registrar's Office across all subject codes as they are not currently handled consistently by the departments. Additionally, account for individualized experiences that are immersive experiences.

II. Proposal

1. Modify all existing independent studies (300) to be set up the same across all subject codes at the course level with a standard title, description, and variable credits.
2. Change the registration process for students taking an existing course as individualized instruction. They will be registered into the existing course with modifications to the section and schedule type to reflect individualized instruction and will not be registered as a generic independent study (300). We need to reflect the actual class taken on the transcript and be able to track how many of these we have a term.
3. Create a new course, Immersive Research/Creative Projects (396), that will carry an immersive experience course attribute. It would have a standard title, description, and variable credits for the departments that opt to offer a version.

Note: The above are for the requests that go through the Registrar's Office for manual registration. If a department wants to offer a different version of independent study or research to be scheduled during the call for classes, they can create a new course with a different course number, have it approved through CAPC, and schedule it on the schedule where students register directly.

Individual Instruction Overview:

Independent Study (300)

Course description: Individualized instruction, topic chosen by student and faculty member.

Process:

- Students are registered for "Subject Code" 300.
- Section X
- Schedule Type: INS (Independent Study)
- Each student's individual topic will be entered on the transcript as a term comment.
- If multiple students are taking an independent study under the same instructor, they will all be registered for the same CRN.
- If a department does not have a 300 level, they will need to request creation of one through CAPC.

Taking an Existing Course as Individualized Instruction

A student receiving the same content and learning outcomes of a course that exists in the catalog and may not be offered in the term or at a time the student can take it.

Process:

- Students provide the subject code and course number of the existing course.
- Students are registered for the existing course
- Section: X
- Schedule Type: IND (Individual Instruction)

Immersive Research/Creative Projects (396)

Course description: Mentored research, scholarship, or creative projects beyond the traditional classroom experience in which the student defines the question and approach of the topic to be studied.

Process:

- Students are registered for “Subject Code” 396.
- Section X
- Schedule Type: IND (Individual Instruction)
- Each student's individual topic will be entered on the transcript as a term comment.
- If multiple students are taking immersive research under the same instructor, they will all be registered for the same CRN.
- If a department does not have a 396 level, they will need to request creation of one through CAPC and meet the requirements for the immersive attribute.

III. Proposed Implementation

- Existing 300s will be updated with the new generic description, course title, and variable credit.
 - If a department does not have an existing 300, they will need to submit a course proposal form for 300 to be created
- 396 - BIOL/NEUR/PSYC will need to be reviewed if they meet the requirements of 396 and be updated with the standard description.
- 394/395/200-level versions - will need to be reviewed to see if they should be renumbered to 396 or stay at the existing number as it does not meet the immersive requirement.

IV. Included Below

- Course proposal form for Independent Study 300
- Course proposal form for Immersive Research/Creative Projects (396)
- Independent Study/individualized Instruction student request form

Complete and submit an electronic version of this form for new courses and revisions of existing courses.

Select one: NEW COURSE CHANGES TO AN EXISTING COURSE

Effective Term: Fall January Spring Summer **Year:** 2020

Subject Code: (VARIES) **Course Number:** 396
 CLA CSGS

College: THEO **Department:** _____

Credits: Fixed: OR Variable: 1 To/Or 4 **Anticipated Instructor:** _____

Repeatable: YES NO If yes, Max # of Times Allowed for Repeat: OR Max # of Credits Allowed for Repeat:

| Course Format: | Student Level: | Grade Mode: | | | | | | | | | | | | |
|---|--|---|--|----------|----------------------------------|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------|--------------------------|--------------------------------|--------------------------|-----------------------------------|--------------------------|
| <p><i>Select all that may apply to the course.</i></p> <input type="checkbox"/> Lecture <input type="checkbox"/> Seminar <input type="checkbox"/> Lab <input type="checkbox"/> Recitation/Precept <input type="checkbox"/> Hybrid <input type="checkbox"/> Studio <input type="checkbox"/> Internship <input type="checkbox"/> Independent Study <input checked="" type="checkbox"/> Individual Instruction <input type="checkbox"/> Online <input type="checkbox"/> Chapel <input type="checkbox"/> Off Campus <input type="checkbox"/> Other: | <p><i>Select all student levels that may be able to take the course. This should include any student level that could possibly take the course as an exception and receive credit. You may restrict it to a certain population later in the form.</i></p> <input checked="" type="checkbox"/> Undergraduate (UG) <input type="checkbox"/> Graduate Master's CSGS (GM) <input type="checkbox"/> Graduate Doctoral CSGS (GD) <input type="checkbox"/> Professional Master's Theo (PM) <input type="checkbox"/> Professional Doctoral Theo (PD) <input type="checkbox"/> Academic Master's Theo (TM) <input type="checkbox"/> GDR Ph.D (TP) | <p><i>Select all that may apply to the course. You only need to indicate one as a default.</i></p> <table> <thead> <tr> <th></th> <th>Default?</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Regular</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Pass/Fail</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> DMIN</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Audit</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> No Grade</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>Language:</p> <input type="checkbox"/> English <input type="checkbox"/> Other: | | Default? | <input type="checkbox"/> Regular | <input checked="" type="checkbox"/> | <input type="checkbox"/> Pass/Fail | <input checked="" type="checkbox"/> | <input type="checkbox"/> DMIN | <input type="checkbox"/> | <input type="checkbox"/> Audit | <input type="checkbox"/> | <input type="checkbox"/> No Grade | <input type="checkbox"/> |
| | Default? | | | | | | | | | | | | | |
| <input type="checkbox"/> Regular | <input checked="" type="checkbox"/> | | | | | | | | | | | | | |
| <input type="checkbox"/> Pass/Fail | <input checked="" type="checkbox"/> | | | | | | | | | | | | | |
| <input type="checkbox"/> DMIN | <input type="checkbox"/> | | | | | | | | | | | | | |
| <input type="checkbox"/> Audit | <input type="checkbox"/> | | | | | | | | | | | | | |
| <input type="checkbox"/> No Grade | <input type="checkbox"/> | | | | | | | | | | | | | |

Title: Immersive Research/Creative Projects

Short Title (30 character limit and no '&'): Immersive Research/Creative Projects

Course Description (125 word limit):

*A course description informs a student of the subject matter, approach, applicability, and highlights topics. It should **not** include deliverables (e.g. "Students will..."), begin with "This course...", or include syllabus-related content (assignments, structure, software that will change term by term, etc.). Course descriptions may be edited for length or content to meet these requirements.*

Mentored research, scholarship, or creative projects beyond the traditional classroom experience in which the student defines the question and approach of the topic to be studied.

Process

- Students submit an Independent Study/Individualize Instruction form that requires instructor approval for registration
- Students are registered for *Subject Code* 396.
- Section X
- Schedule Type: INS (Independent Study)
- If a department does not have a 396 level, they will need to request creation of one through CAPC and meet the requirements for the immersive attribute.

CLA Independent Study & Individualized Instruction Registration Form 2020

Please complete all fields

Students may use this form to request registration for one of the following:

Independent Study: individualized instruction where the class topic is chosen by the student and faculty member. Designated with 300 as the course number.

Taking an Existing Course as Individualized Instruction: a student who is receiving the same content and learning outcomes of a course that exists in the catalog and may not be offered in the term or at a time the student can take it. Students should provide the subject code and course number of the existing course in the form.

Immersive Research/Creative Project: mentored research, scholarship, or creative projects beyond the traditional classroom experience in which the student defines the question and approach of the topic to be studied. Designated with 396 as the course number.

Submitting a request does not constitute approval. Requests are reviewed by faculty and may be approved or denied.

Student Name (First and Last) *

I.D. Number *

Your Drew University Email Address *

Requested Registration

- Independent Study (300)
- Taking an Existing Course as Individualized Instruction
- Immersive Research/Creative Projects (396)

Department of Study (CLA students) *

Please note: If your desired area of study does not appear on this list, please select the "Other" field.

Only if a student selects "Taking an Existing Course as Individualized Instruction" they will see the statement about prior approval needed before submission and the course number box:

Requested Registration

- Independent Study (300)
- Taking an Existing Course as Individualized Instruction
- Immersive Research/Creative Projects (396)

Taking an existing course as individual instruction is only approved with extenuating circumstances. Student must make arrangements with faculty before submitting this form. If you have not spoken to the faculty member, please do not submit this form until you receive the directive from the faculty member. *

- I have spoken to the faculty member and they told me to submit the request.

Department of Study (CLA students) *

Please note: If your desired area of study does not appear on this list, please select the "Other" field.

Course Number of Existing Course *

Please provide the course number of the existing course you are taking as individualized instruction. View the catalog if you do not know the number: <http://catalog.drew.edu/>

Calendar Year *

Select the Term and Part of Term for Registration *

- Fall – Full Term
- Fall – First Half of Term
- Fall – Second Half of Term
- Jan Term – If a student is attempting to earn 3 or 4 credits in Jan Term, they must begin work prior to Jan Term in order to meet the credit hour requirement.
- Spring – Full Term
- Spring – First Half of Term
- Spring – Second Half of Term
- Summer – Full Term
- Summer – First Half of Term
- Summer – Second Half of Term

Please select the term in which the work will be completed.

Number of Credits – Full Term *

▼ 1 Credit Hour (45 Learning Hours) 2 Credit Hours (90 Learning Hours) 3 Credit Hours (135 Learning Hours) 4 Credit Hours (180 Learning Hours) ▼

of learning hours to earn the selected number of credits. If a student is t. Please ensure the Start and End dates reflect the true start date of the

If a student selects half term, they will receive a different credit drop-down with only two options:

Select the Term and Part of Term for Registration *

- Fall – Full Term
- Fall – First Half of Term
- Fall – Second Half of Term
- Jan Term – If a student is attempting to earn 3 or 4 credits in Jan Term, they must begin work prior to Jan Term in order to meet the credit hour requirement.
- Spring – Full Term
- Spring – First Half of Term
- Spring – Second Half of Term
- Summer – Full Term
- Summer – First Half of Term
- Summer – Second Half of Term

Please select the term in which the work will be completed.

Number of Credits – Half Term *

▼ 1 Credit Hour (45 Learning Hours) 2 Credit Hours (90 Learning Hours) ▼

Start and End dates reflect the true start date of the work.

of learning hours to earn the selected number of credits. Please ensure the

Instructor's Name (First and Last) *

Instructor's Email *

Advisor's Name (First and Last) *

Advisor's Email *

Please use only "@drew.edu" email accounts. Instructors will not receive emails at non-Drew email addresses.

Only students who select "Independent Study (300)" or "Immersive Research/Creative Projects (396)" will see the following two boxes as students taking an existing course will have the existing course title on their transcript and should have established learning outcomes.

Title/Topic of Independent Study *

Please enter the title or topic of the requested registration. This will display on your transcript once the registration has been graded.

Anticipated Assignments, Deliverables, and Learning Outcomes *

Please describe the work expected to be completed, including: readings, homework assignments, finals papers/projects, etc.

Only students who select "Taking an Existing Course as Individualized Instruction" will see the following box.

Please state why you are not able to register for the regularly scheduled offering of the existing course. *

Use this space to explain why you need to take an existing course as individual instruction and are not able to take it when it is on the schedule of classes.

Start Date *

Please provide the date work will start for the requested registration.

End Date *

Please provide the date work is due for the requested registration. This date should fall within the academic term and not extend past the last day of the term.

Anticipated Number of Meetings with Instructor *

Please provide the anticipated number of times you will meet with your instructor for the requested registration.

I understand, I will be manually registered for the above request upon approval from the instructor and advisor listed on this application. If I do not want to be registered, I must contact the Registrar's Office directly to cancel this request. *

I understand.

I understand, I am responsible for reviewing my schedule to ensure I have enough space available for the requested registration. If the registration results in an overload of credits, I must submit a petition to the academic standing committee to approve the increase in hours for the term and understand the financial implications of the overload before I can be registered. *

I understand.

I understand, I am responsible for payment of fees associated with my enrollment which must be paid prior to the start of the semester. Any balance that becomes due after the semester billing (e.g. late registrations, changes to a schedule) are due immediately. *

I understand.

I understand, I will not be registered if I have a registration-blocking hold on my account. I will need to clear the hold then inform the Registrar's Office in order to be registered. *

I understand.

I understand, this request will have to be approved by the instructor on record or an associate dean. It is my responsibility to follow up with the instructor/dean upon submission of this form to ensure they reply to the email copy of this request they receive to approve or deny and "sign" their name. *

I understand.

Please E-Sign to approve registration of this request if all conditions stated above are appropriately met. *

Example: Jane F. Doe

Proposed system for adding Immersive Experiences to transcripts:

COURSES: Right now, students register for a variety of courses that are tagged as Immersive experiences, indicated by one of the following attributes:

Immersive Experience Attributes Currently in the System:

- IMMX: CLA-Immersive Experience
- *IMCE: Community-Engaged Proj & Learn
- *IMIN: Internship
- *IMRC: UG Research & Creative Project
- *IMTR: Study Abroad & Domestic Prgms
- IMML: Peer Mentoring & Leadership

The Immersive Experiences with * all exist within the current course structure. Registration for these experiences happens primarily through the course registration system, these courses appear as SUBJ ###. An instructor is assigned, grades (sometimes in the form of a letter grade, sometimes a P/F) are assigned at the end of the term. These courses are shown on transcripts in the semester that they are completed, and the format **SUBJ ### (UG) Title** remains the same.

NON - COURSES: Several experiences in the highlighted categories below are being brought before CAPC for approval as immersive experiences.

- IMMX: CLA-Immersive Experience
- *IMCE: Community-Engaged Proj & Learn
- *IMIN: Internship
- *IMRC: UG Research & Creative Project
- *IMTR: Study Abroad & Domestic Prgms
- IMML: Peer Mentoring & Leadership

We need a system to monitor a student's enrollment in and completion of these experiences, and have them recorded on a student's transcript. We propose making these experiences "courses" so that the normal registration system can handle these functions once CAPC has approved the experiences that will regularly and robustly meet the IMM EXP requirements. A few key points:

1) Grade mode:

P/U, stands for Pass or Unsatisfactory

though it is noted that we don't want NOT COMPLETE/U/NR to show on a student's transcript. In this case, we would remove the experience from their registration/transcript completely.

- 2) Registration:** Instructors submit a bulk registration about a month into the term, and instructors follow up with a "grade" for the experience at the end of the semester to indicate that a student satisfactorily completed the experience.

3) **Instructors:** Note the instructors/directors of these courses are all employees of Drew, mainly drawn from Drew’s staff.

4) **Course creation:**

This course system will house new experiences that might include:

- Teaching Assistant
- Resident Assistant
- Academic Tutor
- Student Government
- Student Activity/Campus Life Leader
 - Club leader
 - VWB leader
 - INTO culture class instructor
- Student Mentor (Writing fellows, tech fellows)

Proposed categories for additional Immersive Experiences courses:

| Course subj | “number” | Type of experience |
|-------------|----------|--|
| IMEX | TTR | Tutor, Academic Assistant, TA |
| IMEX | CBL | Community engaged learning (CSV? Community/Service?) |
| IMEX | LDR | Leadership/Student Govt |
| IMEX | MTR | Mentor |
| | | |
| IMEX | RES | Research (for DSSI or DHSI) |
| IMEX | CRT | Creative project (For DHSI) |

5) **Non-regular Immersive Experiences** will have to be approved through a petition (likely a Google form) submitted by the student to CAPC. These experiences will not appear on a student’s transcript. If approved, one of the Immersive Experience requirements on Ladder will be fulfilled by an exception entered by the Registrar’s Office.

Registration/Transcript Examples

Summary from Stephanie: In an effort to capture non-class immersive experiences on the transcript, the best method is to create a subject code and “course number” that can be put on their schedule like a class. This would allow the process to be a little more automated, pull the class into Ladder to fulfill the immersive experience requirement, and allow students, faculty, and offices an opportunity to view that the student is participating in these experiences, and report out on how many occur over time.

Sample Class Setup:

Potential registration method:

For experiences that require an application process and have been blanket approved as an immersive experience, the Registrar’s Office can be provided a list of students to register into a

registration mode that automatically marks the class as complete at the end of the term without requiring an instructor of record.

Example of classes as they would display on a student’s schedule:


Immersive Experience: RA - IMEX RA - X

Associated Term: Spring 2020
CRN: 31525
Status: Non-class Registration on Apr 29, 2020
Assigned Instructor:
Grade Mode: Pass/Unsatisfactory No GPA
Credits: 0.000
Level: Undergraduate
Campus: Main

Scheduled Meeting Times

| Type | Time | Days | Where | Date Range | Schedule Type | Instructors |
|----------------------|------|------|-------|-----------------------------|----------------------|-------------|
| Immersive Experience | .TBA | | .TBA | Jan 13, 2020 - May 06, 2020 | Immersive Experience | .TBA |

Immersive Experience: Tutor - IMEX TTR - X

Associated Term: Spring 2020
CRN: 31526
Status: **Registered** on Apr 29, 2020
Assigned Instructor: Stephanie Caldwell 
Grade Mode: Pass/Unsatisfactory No GPA
Credits: 0.000
Level: Undergraduate
Campus: Main

Scheduled Meeting Times

| Type | Time | Days | Where | Date Range | Schedule Type | Instructors |
|----------------------|------|------|-------|-----------------------------|----------------------|--|
| Immersive Experience | .TBA | | .TBA | Jan 13, 2020 - May 06, 2020 | Immersive Experience | Stephanie Caldwell (P)  |

Grade Mode:

The grade mode for these non-class registrations is shown here as P/U.

- P – Pass
- U – Unsatisfactory

Course Information

Immersive Experience: Tutor - IMEX TTR X

CRN:

31526

Students Registered:

1

⚠ Please submit the grades often. There is a 60 minute time limit starting at 02:14 pm on Apr 29, 2020 for this page.

Final Grades

| Record Number | Student Name | ID | Credits | Registration Status | Grade | Rolled | Last Attend Date | Attend Hours | Registration Number |
|---------------|-------------------------------|----------|---------|---------------------|-------|--------|------------------|--------------|---------------------|
| 1 | Student, Drew | 88888888 | 10.000 | **Registered** | | N | MM/DD/YYYY | 0-999.99 | 1 |

Submit Reset

The Registrar’s Office is in the process of updating the back of the transcript to reflect our new grade modes and notations.

Transcript:

Like classes, the experience will show up under the term it happened once rolled with the appropriate “grade.”

Term: Spring 2020

| Subject | Course | Level | Title | Grade | Credit Hours | Quality Points | R |
|---------|--------|-------|---|-------|--------------|----------------|---|
| IMEX | RA | UG | Immersive Experience: RA | P | 0.000 | 0.000 | |
| IMEX | TTR | UG | Immersive Experience: Tutor | P | 0.000 | 0.000 | |
| SPAN | 102 | UG | Fundamentals of Oral and Written Spanish II | B+ | 4.000 | 13.320 | |
| THEA | 330 | UG | Advanced Acting: On Camera | A- | 4.000 | 14.680 | |

Term Totals (Undergraduate)

| | Attempt Hours | Passed Hours | Earned Hours | GPA Hours | Quality Points | GPA |
|----------------------|---------------|--------------|--------------|-----------|----------------|-------|
| Current Term: | 8.000 | 8.000 | 8.000 | 8.000 | 28.000 | 3.500 |
| Cumulative: | 99.000 | 99.000 | 99.000 | 99.000 | 366.720 | 3.704 |

Benefits of this process/Final Steps:

- Experiences are easy to track.
- Ladder will pull in the “class” and automatically complete immersive experience requirements; no petitions required.
- Minimal manual work:
 - Registrar’s Office assists with registration for some experiences; information provided in bulk by directors/instructors
 - Some approved experiences may be registered in a way that does require an instructor to submit a final grade.
 - Some approved and particularly robust experiences may be registered in a way that does not require an instructor to subsequently enter a final grade.
 - Would need to include UT to ensure this registration status is appropriately included in every feed/report that shows registrations.

Curricular Report

May 2020

For Action:

- Finance (B.S.) Major
- MS in Data Analytics-Revision

For Information:

New Courses:

- CSCI 250/Web Application Development
- CSCI 255/Introduction to Cybersecurity
- DATA 505/Statistics Using R
- DATA 506/Computational Thinking/Programming in Python

Changes to Existing Courses:

- DANC 220/Movement for the Musical Stage
 - ◆ Description change

Gen Ed Designations:

- PSYC 272/Stress and Coping [IMMX]

Changes to Existing Major/Minor:

- ◆ Computer Science Major/Minor
 - ◆ Adding new courses CSCI 250/Web Application Development and CSCI 255/Introduction to Cybersecurity
- ◆ Data Analytics Major
 - ◆ Removing DATA 501/Introduction to Data Science
 - ◆ DATA 551/Modeling and Simulation is no longer a requirement, but an elective
 - ◆ Adding new courses DATA 505/Statistics Using R and DATA 506/Computational Thinking/Programming in Python

For Action:

Finance (B.S.) Major

Proposal for a New Major in Finance

April 24, 2020 Version

1. Program mission and rationale.

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

proposal? Briefly describe the benchmarking process and stakeholder discussion informing this proposal here, and note that more detailed information is required below.

The business program at Drew University has grown by leaps and bounds since its inception in the fall of 2009, with business now comprising the largest number of undergraduate majors. The success of this program and its graduates speaks to our ability to integrate what is traditionally considered to be a professional major into the liberal arts. The breadth and depth of Drew’s business curriculum combined with experiential learning and professional networking opportunities leads to strong student outcomes and differentiates us from our peer and competitor institutions. Drew’s location in the tri-state area gives students access to both New York City and a plethora of experiential learning opportunities in the towns and cities surrounding campus, plus the ability to network with alumni and professionals in myriad industries and obtain internships throughout the year. Business programming events have also served as both a valuable learning platform for undergraduates and a way in which Drew’s major further differentiates itself. This proposal seeks to retain and expand these prominent qualities of integrating “professional” majors into the liberal arts, while adding focused enhancements to students keen on diving more deeply into distinct elements of business. Such educational opportunities are ideally situated to prepare Drew graduates for successful and purposeful professions in a world in which the future of jobs is changing rapidly. Automization, big data, and artificial intelligence are impacting all professions, and we believe liberally trained graduates are optimally prepared with a strong core of transferable skills to adapt to these changes. The addition of more business-related majors will also aid our recruitment efforts for prospective students interested in gaining more skills in their particular areas of interest, while also making them more attractive to prospective employers throughout their college career as they seek internships and employment.

The benefits of adding a major in finance are substantial. This expanded offering would strengthen Drew University’s efforts to serve as a liberal arts institution that prepares students for post-graduation professional success, including key fields within business, helping to establish our brand, improving our recruiting efforts especially through increased yield, and increasing our undergraduate class sizes. Table 1 below shows strong interest of prospective students in finance. Other benefits emerge as well, including a synergy with Launch as we strengthen our reputation for finance internships, and the support of Drew alumni in finance who can offer their experience and expertise to programming, internships, and mentoring. And developing a finance major synchronizes with our existing Master in Finance program, allowing for shared resources and programming, while providing a smooth conduit into the graduate space for interested undergraduates.

Table 1. Overview of Program Demand by Students

| Major | Prospective Students ¹ | National A&S ² | 5-year % Growth ³ |
|------------|-----------------------------------|---------------------------|------------------------------|
| Accounting | 14,532 | 1,568 | 19% |

| | | | |
|---|------------------|-----|-----|
| Finance | --- | 473 | 61% |
| Marketing: w/o Bus. Admin, in Bus. Admin. | 16,904 72,856 | 433 | 23% |

¹Number of prospective students pulled from the College Board data set. For reference, the total number of prospective students in business programs is 193,628. ²Average number of degrees conferred AY13-16 at Carnegie-classified Arts & Sciences institutions. ³Growth calculated as additional degrees conferred per year (slope) from linear fit to 2011-2016 data.

The current business major is general and broad, which helps students discover many different subfields that may stoke their passion. But for those students who either come to Drew wanting to study finance, or for those who become excited by the prospects of a career in finance, our undergraduate offerings in the field are limited in their coverage, with more intuition at the cost of rigor. For example, students in business can graduate with only a single course in math (statistics), and no exposure to financial datasets or modeling. These students can be a disadvantage when applying for internships, post-graduate employment, or graduate programs in finance. A more focused major with greater quantitative emphasis serves to remedy this hurdle for a subset of our business students.

The Business Advisory Committee, which includes representatives from several departments and programs, has already engaged stakeholders across the institution, including Economics, and Math & Computer Science. Several administrative offices have also been consulted including Admissions, Advancement, and Finance.

2. Program goals and Student Learning Outcomes.

Please include program goals for your new major/program.

Goals of Finance Major.

1. Provide students with the theory and structure of finance and its connections with the business world

Students will gain a thorough grounding in the theory and practice of finance, set within the wider perspective of the principles of business and how organizations operate within a fast-changing global economy. Students will gain the skills and knowledge that will equip them to go on to advanced education like a master's degree in finance, or the additional education and exams required to become a certified finance accountant.

2. Instill an integrated understanding of finance and ethics

Given the rapidly changing finance industry, our graduates will need to provide more clarity about the processes that generate their decision-making and the potential impacts of these decisions on the broader community and society. Students will learn about the need to collaborate with external stakeholders, especially as organizations (for-profit, non-profit, and governmental) face a series of

challenges including corruption, tax-avoidance, environmental and social demands and regulations, and labor and shareholder demands for transparency.

3. Integrate the main principles of finance with the tools of data analytics

Data analytics is transforming the field of finance, rendering basic financial tasks, including trading, obsolete while creating robust opportunities for people with multifaceted and current skill sets. We will provide our students with the quantitative knowledge and skills to collect financial information and provide nuanced data-driven analysis, along with the flexibility to communicate these insights and recommendations to a broad audience.

SLO 1. Students will be able to quantitatively and qualitatively evaluate financial and business decisions in a historical and/or contemporary context.

SLO 2. Students will be able to explain financial issues and events using multiple models of financial pricing and risk.

SLO 3. Students will be able to communicate financial and business topics to multiple audiences both individually and members of a team, using data, graphs, and mathematical notation as appropriate.

SLO 4. Students will be able to understand and explain the ethical issues intrinsic to the financial industry, including individual versus societal tradeoffs, and topics involving equity and profitability.

3. Major/Program curriculum and requirements.

Rationale for curriculum design: The finance major brings together courses across business, economics, and math/computer science, to build a curriculum that is cohesive and gives its graduates tangible insights and skills to help them excel in the finance industry. It starts with a strong underpinning of math and market concepts, followed by core classes in economics and data analysis. Majors choose electives from two distinct areas: finance (which can include exploration of global and macro issues), and analytics (which include modeling, data science, and data visualization). The curriculum culminates in a senior capstone that has students work in small groups to tackle an open-ended finance issue using the tools and techniques gained throughout the major; students will present their findings and recommendations to a panel of experts and field their questions.

BS Finance: 60 credits

The Bachelor of Science (B.S.) Finance major is designed to appeal to students wanting to immerse themselves in financial markets and data analysis. Our rigorous and hands-on curriculum engages our students through real-world exposure to U.S. and global markets, and prepares our graduates for success in careers throughout the financial industry.

Intro: 20 credits

| | |
|------------------------------|----------|
| Principles of Microeconomics | ECON 101 |
| Principles of Macroeconomics | ECON 102 |

| | |
|---|--------------------------------|
| Statistics | MATH 117 |
| Calculus I | MATH 150 OR |
| Topics in single and Multivariable Calculus | MATH 200 |
| Financial Accounting | BST 215 |
| Core: 32 credits | |
| Intermediate Microeconomics (prerequisites: ECON 101) | ECON 301 |
| Econometrics (prerequisites: ECON 301) | ECON 303 |
| OR | |
| Intermediate Statistics (prerequisites: MATH 117) | MATH 227 |
| Finance (prerequisites: MATH 117 and BST 215) | BST 304 |
| Corporate Finance (prerequisites: BST 304) | BST 321 |
| Intro to Python Computing in R | CSCI 150 OR STAT 120 |
| Data Analysis (prerequisites: MATH 117 and CSCI 149 or CSCI 150 or STAT 120) | DATA 253 |
| Business Ethics | REL 214 OR |
| Organizational Ethics | BST 3XX |

Ethical and Critical Perspectives on Finance

Students must take one of the following courses:

| | |
|---|---------------------------------------|
| Business Ethics | REL 214 OR |
| Organizational Ethics | BST 3XX OR |
| History of Economic Thought | ECON 316 OR |
| Business/Economics Special Topics (as appropriate) | BST 250/ECON 250/ BST 350/ECON 350 |

Note *Students may petition the program director to count BST/ECON 250 and BST/ECON 350 when the topic is appropriate."

Finance Theory and Practice -WRMJ BST 414

Electives: 8 credits

The two electives sections allow students to develop their skills in the areas of both business and math/computer science, giving them the appropriate insights and the tools to understand and analyze financial topics and issues. Majors must choose at least one of the following courses from each grouping. At least one course must be at the 300-level. A finance internship experience (INTC 200) can also count towards one of these electives.

1. FINANCE:

As appropriate BST 250

As appropriate (ex: Hedge Funds and Strategies) BST 350

International Business ECON 242

(prerequisites: ECON 101)

Wall Street semester program ECON 281

(prerequisites: ECON 101 and ECON 102)

Money and Banking ECON 320

(prerequisites: ECON 302)

2. ANALYTICS:

Databases and Information Management CSCI 330

(prerequisites: CSCI 151)

Data Visualization DATA 251

(prerequisites: MATH 117)

Modeling and Simulation DATA 252

(prerequisites: CSCI 149 or CSCI 150 or STAT 120)

~~Applied Data Science DATA 390-new~~

Course Description:

BST 414: Finance Theory and Practice

prerequisites: BST 321 & DATA 253. Open to seniors only

This class gives students the opportunity to synthesize the financial models and data analysis methods they have built up in earlier classes in the major. They will use both their financial and data science skills to tackle open-ended investing questions. Students will create strategies that help fulfill the goals of their assigned or chosen organization, and in small teams they will communicate their processes and outcomes both orally and in written form to an external audience at semester's end.

Preliminary benchmarking data of peer finance majors are included in Table 2. Although benchmarking data is helpful, we are also intentionally looking at the future of finance by deliberately integrating data analytics into the curriculum. To that end, one set of electives are in data science and computer science, and we will expand our existing programming events that allow students to gain the perspective and skills to excel in this new data-driven environment. Our Bloomberg Lab (currently located in BC-1), installed as part of the Master in Finance program, provides an attractive backdrop to consider new types of events and skills-based competitions and workshops.

We strongly advocate for this major to be a bachelor in science degree. This is a powerful signal to prospective students, freshmen, and sophomores that the curriculum will embrace quantitative elements at all course levels. It provides a clearer delineation between the finance major and the other three business majors. And it will make our students more attractive to prospective employers for the types of jobs in the industry, and more competitive with students graduating from other more well-known institutions. The curriculum that we have devised, with calculus, econometrics, coding, corporate finance, and data analysis courses, aligns well with the bachelors in science designation.

Unlike the new offerings in accounting and marketing, it is unlikely that we will be offering a minor in finance. With the large number of courses needed in the major, at this point it does not seem feasible nor warranted to construct a minor that would have to be at least 32 credits.

Table 2. Benchmarking Data from Three Peer Institutions.

| School | Drew | Muhlenberg | Wash. & Jeff. | Susquehanna (B.S.) |
|-------------------|------------------------|------------------------|------------------------|------------------------|
| Major size | 15 courses, 60 credits | 12 courses, 48 credits | 12 courses, 48 credits | 20 courses, 76 credits |
| 100-level | Macroeconomics | Macroeconomics | Macroeconomics | Microeconomics |
| | Microeconomics | Microeconomics | Microeconomics | Macroeconomics |
| | | | | |
| | Statistics | Statistics | Statistics | Statistics |
| | Calculus | Calculus | Calculus | |

| | | | | |
|------------------|---------------------------|---|-----------------------------------|--|
| | Intro to Python or R | | | |
| 200-level | Financial Accounting | | Financial Accounting | Financial Accounting |
| | Business Ethics | | | Global Business Ethics |
| | Data Analysis | | | Database Information Collecting and Modeling |
| | | Management | | Management |
| | | | | Marketing |
| | | | | Data Driven Decision Making |
| | | | | Intro to Professional Development |
| 300-level | Intermediate Micro | | | Cost Management |
| | Econometrics | | | |
| | Finance | | Principles of Finance | Investment Analysis |
| | Corporate Finance | Corporate Finance | Investment & Portfolio Theory | Corporate Financial Management |
| | | Monetary Economics | | |
| | | | Managerial Finance and Accounting | Financial Statement Analysis |
| | | | | International Financial Management |
| 400-level | Finance Theory & Practice | Advanced Topics in Financial Management | Security Analysis and Valuation | Business Policy & Strategy |
| | | | Finance Seminar | Data Insight & Visualization |

Note: Susquehanna's School of Business as accredited by AACSB. The finance major includes the core business curriculum (56 credits) along with the required finance classes (another 20 credits). Muhlenberg and Washington and Jefferson only offer B.A. degrees. Benchmarking of other peer institutions with Finance majors indicates the B.S. degrees are the norm.

c. Provide a mapping of all curricular elements to the programmatic SLOs.

E = Emerging, D = Developing, M = Mastering

| Course | SLO 1 | SLO 2 | SLO 3 | SLO 4 |
|--------------------------------|-------|-------|-------|-------|
| Microeconomics | E | | E | |
| Macroeconomics | E | | E | |
| Statistics | | | E | |
| Calculus | E | | | |
| Financial Accounting | | E | E | E |
| Intermediate Microeconomics | D | | | |
| Econometrics | D | | D | |
| Finance | E | E | D | E |
| Corporate Finance | D | D | M | D |
| Intro to Python/Computing in R | D | | | |
| Data Analysis | D | | | |
| Business Ethics | | | | D |
| Finance Theory and Practice | M | M | M | M |

Table: Planned Three-Year Rotation of Finance Courses

| Course | Year 1 Fall | Year 1 Spr | Year 2 Fall | Year 2 Spr | Year 3 Fall | Year 3 Spr |
|-------------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Econometrics | Chi | Ali | Chi | Ali | Chi | Ali |
| Ethics | Cole | de Voogt | Cole | de Voogt | Madra | Cole |
| Finance | Tomljanovich | Pinto | Tomljanovich | Pinto | Tomljanovich | Pinto |
| Corporate Finance | Anderson | | Anderson | | Anderson | |
| Finance | | Tomljanovich | | Tomljanovich | | Tomljanovich/ |

| | | | | | | |
|-------------------|--|--------|--|--------|--|-------|
| Theory & Practice | | /Pinto | | /Pinto | | Pinto |
|-------------------|--|--------|--|--------|--|-------|

Staffing implications.

Faculty: One of the biggest attractions of this proposed major in finance is that all of the courses in the major are currently taught (with the exception of the capstone). We therefore do not need to hire any new full-time faculty in order to run this program. We do anticipate needing to hire at least one adjunct per semester for some of the BST finance electives.

However, we also need to be mindful of the impacts this new major will have on other departments, especially as we are emphatic about interdisciplinary ties as a key construct of the curriculum. We believe that growing the number of finance students at Drew may also require additional hires in at least economics and data science, contingent on hitting enrollment targets, to aid with both core finance, business, and economics courses. The following departments and programs have potential alignment with finance and would be good partners for affiliated or joint hires: Economics, Data Analytics and Computer Science. Given the uncertainty in projecting enrollment numbers and identifying the specific impact on each area, it is essential to evaluate staffing requirements in these supporting areas annually and consider line requests through Dean’s Council processes if deemed necessary. Five-year budget models for this new major being proposed range from very conservative enrollment numbers, which does not require additional resources in supporting areas, to strong enrollment estimates, which may require up to two full-time faculty hires in supporting areas.

We will develop a transition plan once the majors are offered, so that in AY2021 seniors at the very least are not eligible to declare this new major. This keeps us from having to offer the capstone in Year 1 (AY2021).

Staff: As we expand our business offerings, the resource shortages of the undergraduate business program will become more acute. It is safe to say that this endeavor will fail without staff who can serve as the operational linchpins of these myriad programs. We are therefore budgeting for a full-time staff member to start during summer 2020 who can help with programming, marketing, logistics, and partnerships. This person will work in close collaboration with the Center for Immersive Learning and Career Design in support of the relevant immersive experiences (i.e., nycTREC, internships). (Note, this is the same staff position described in the accompanying proposals for accounting and marketing.)

Our timeline is ambitious by necessity. We are looking to offer the accounting major starting in fall 2020.

| Tentative Implementation Timeline for undergraduate majors in Marketing and Accounting | |
|--|---|
| | • |

| | |
|-------------|--|
| Spring 2020 | <ul style="list-style-type: none"> • Curriculum design with full proposals submitted to CAPC • Board and faculty approval of full proposals • Fundraising (ongoing) |
| Summer 2020 | <ul style="list-style-type: none"> • Staff hiring (1 full-time position; same position as described in other proposals) |
| Fall 2020 | <ul style="list-style-type: none"> • Start of BS major in finance |
| AY 2021-22 | <ul style="list-style-type: none"> • Faculty hiring, 1-2 positions in supporting areas, contingent on enrollment |
| AY 2022-23 | <ul style="list-style-type: none"> • Faculty hiring in supporting areas, contingent on enrollment • Open permanent Business Lab |

4. Impact on and connection with other departments and programs.

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

There is a definite effect on a number of other departments and programs, not just because certain courses outside of the Economics and Business Department are required core or elective classes, but also because a large number of business majors also choose to declare an additional major or minor. Registrar's Office data from Fall 2019 shows that of the 149 declared business majors at Drew, 18 have a second major (the largest being Computer Science, Spanish, and French) while 50 have a minor (the largest being Media & Communication, Spanish, Psychology, Sociology, and Computer Science). This data is likely skewed downwards, as business has many transfer students and many students do not declare another major or minor until later in their academic career.

We have identified the following departments and programs that will have an influx of students in their classes. We have begun preliminary talks with these departments, but much more communication needs to occur in the coming months so we can determine staffing concerns and needs and develop plans in response.

FINANCE: *Religious Studies, Economics, Math & Computer Science*

It is essential to point out that we are not allowing students to double major in two business/economics related fields. For example, a student will not be able to double in marketing and finance.

5. Information regarding business program accreditation.

Please explain how the proposed curriculum meets the goals and outcomes defined by external organizations. It may be helpful to attach any relevant documents from these organizations in an Appendix.

We are already on the road to business accreditation through ACBSP (Accreditation Council for Business Schools and Programs), with our tentative plan being to receive accreditation in AY2022. Our general business curriculum already aligns well with the mapping proposed by ACBSP (see Appendix 1), and as we put together the courses for the finance major, we will continue to reference their recommendations. The direct integration of the finance major within the guidelines of ACBSP is straightforward once the general business program is accredited, and does not require nearly the same time and resource investment. The finance major would have the ability to become accredited once the program is in place for at least two years, and we have a set of finance graduates from which we have assessment data, which would be AY2023 at the earliest.

NEW MAJOR/PROGRAM ANALYSIS

STUDENT INTEREST AND PROGRAM FINANCES

6. Explain how the major / program meets the strategic goals of the university and the school:

The interdisciplinary nature of Drew’s business programs, including the proposed finance major, and the inclusion of immersive experiences (e.g., NYC TRECs, internships, CBL courses) helps differentiate Drew’s offerings in a crowded education space. We believe that business programs integrated into the liberal arts is ideally suited to preparing business leaders in a rapidly changing world. The addition of a major in finance will help Drew with branding a broader collection of business programs that can pull in students with varied and creative interests. It also allows us to further strengthen our existing Master in Finance program and certifications in business areas, which could expand enrollment in the Caspersen School of Graduate Studies and would also appeal to graduate students in Drew’s Theological Seminary as well as local organizations.

Adding new high-demand programs is one key strategy for achieving institutional enrollment and revenue goals. An analysis of potential new programs conducted by the Dean’s Office identified undergraduate business programs as an area that leverages our experience and geography, has significant enrollment potential, and does not require a lengthy time frame to being enrolling students.

7. Describe and comment on the expected market for the proposed major / program:

Demand and by employers in finance is strong, especially in the New York-New Jersey metropolitan area (see BLS data in Tables 3 and 4). Demand by prospective students is also strong. Finance is listed as the top program, as polled by Admissions, for prospective students who do not attend Drew. Table 5 demonstrates strong demand at Arts & Sciences classified institutions, including many peer and aspirant institutions.

8. Provide evidence of market demand, including national, state, local, disciplinary or other sources:

Data from the Bureau of Labor Statistics:

Table 3. BLS Outlook Data.

| | | |
|--|-------------------|----------------------------|
| | Financial Manager | Personal Financial Advisor |
|--|-------------------|----------------------------|

| | | |
|--------------------------|-------------------|-------------------|
| Number of Jobs, 2018 | 653,600 | 271,700 |
| Job Outlook, 2018-28 | 16% (much faster) | 7% (faster) |
| Employment Change, 18-28 | 104,700 | 19,100 |
| 2018 Median Pay | \$127,990 | \$88,890 |
| Entry-Level Education | Bachelor's degree | Bachelor's degree |

| | Financial Analysts | Financial Examiner |
|--------------------------|--------------------|--------------------|
| Number of Jobs, 2018 | 329,500 | 60,900 |
| Job Outlook, 2018-28 | 6% (average) | 7% (faster) |
| Employment Change, 18-28 | 20,300 | 4,300 |
| 2018 Median Pay | \$85,660 | \$80,180 |
| Entry-Level Education | Bachelor's degree | Bachelor's degree |

According to BLS, the NewYork-Newark-Jersey City has the highest ranked employment level for all four positions. Details for this metropolitan area are included in Table 4.

Table 4.

| Position | Employment | Employment per 1000 jobs | Mean wage |
|----------------------------|------------|--------------------------|-----------|
| Financial Manager | 81,350 | 4.78 | \$157,480 |
| Financial Analysts | 53,250 | 5.67 | \$137,270 |
| Personal Financial Advisor | 27,570 | 2.90 | \$163,490 |
| Financial Examiner | 9,030 | 0.96 | \$115,980 |

9. Enter expected annual enrollment in program (e.g., new students per year) and provide a justification/rationale for these estimates:

Enrollment estimates are based on several different analyses of the number of degrees conferred annually at peer institutions. For Finance, the average number of degrees conferred at five institutions (Table 5) averaged 30. A separate analysis, which considered the percentage of students graduating at these institutions and applied that percentage to an assumed graduation class size of 420, estimates 20 Finance majors each year. These estimates are believed to predict **additional matriculants** since many prospective students decline to attend Drew based on not offering Finance.

Table 5. Number of Economics & Business Degrees Conferred (Ave. 2014-16)

| | IL Wesleyan | Muhlenberg | Susquehanna * | Juniata | Lake Forest | Average | Drew |
|---------------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|
| Business | 66 | 101 | 38 | 21 | 23 | 50 | 33 |
| Economics | 19 | 21 | 11 | 6 | 35 | 18 | 30 |
| Accounting | 35 | 32 | 21 | 6 | | 23 | |
| Finance | 37 | 37 | 28 | 9 | 39 | 30 | |
| Marketing | | | 32 | 3 | | 18 | |
| Total | 120 | 155 | 130 | 45 | 97 | 109 | 63 |
| % of Undergr | 23.5% | 25.6% | 23.7% | 13.3% | 18.6% | 20.9% | |
| % Bus/Econ | 16.6% | 16.3% | 9.3% | 9.1% | 12.6% | 12.8% | 15.9% |
| % Finance | 7.3% | 5.0% | 3.9% | 2.1% | 6.0% | 4.9% | |

*Susquehanna split their Business major into different CIPs for degrees conferred in 2015. Business plus specialization were combined to determine 2-year average

Given the limited number of finance programs in our peer and competitor analysis group, we also analyzed all finance programs at Carnegie-classified Arts & Sciences institutions. A total of 42 A&S institutions used the finance CIP code (Classification of Institutional Programs) between 2014 and 2018 (Table 6), although at least four of these had numbers suggesting that such a major was not officially on the books. The data suggests that several institutions added a finance major within this timeframe (e.g., data for Susquehanna, Hillsdale, Ouachita, Austin, Wittenberg, and Concordia had zero degrees conferred in 2014). These institutions all achieved strong enrollment numbers by 2018, providing evidence that a finance major can be quickly established and thrive at a liberal arts institution.

Table 6. Finance Degrees Conferred at 20 A&S Institutions.

| Institution | 2014 | 2015 | 2016 | 2017 | 2018 |
|------------------------|------|------|------|------|------|
| Siena College | 54 | 59 | 51 | 60 | 69 |
| Wofford College | 51 | 53 | 54 | 58 | 52 |
| Lake Forest College | 23 | 23 | 39 | 52 | 54 |
| Muhlenberg College | 39 | 38 | 35 | 48 | 53 |
| Carthage College | 24 | 22 | 42 | 45 | 46 |
| Saint Anselm College | 11 | 17 | 35 | 39 | 45 |
| Susquehanna University | 0 | 25 | 30 | 38 | 38 |
| Stonehill College | 28 | 29 | 28 | 27 | 44 |
| Grove City College | 21 | 27 | 28 | 32 | 38 |

| | | | | | |
|-------------------------------------|----|----|----|----|----|
| Hillsdale College | 0 | 24 | 30 | 24 | 28 |
| Linfield College-McMinnville Campus | 26 | 26 | 22 | 23 | 23 |
| Gordon College | 9 | 10 | 17 | 18 | 25 |
| Ouachita Baptist University | 0 | 7 | 17 | 10 | 32 |
| Illinois College | 10 | 7 | 20 | 16 | 19 |
| Saint Norbert College | 17 | 19 | 21 | 19 | 14 |
| Austin College | 0 | 1 | 9 | 12 | 30 |
| Albion College | 2 | 2 | 12 | 13 | 20 |
| Saint Vincent College | 16 | 14 | 17 | 11 | 16 |
| Wittenberg University | 0 | 7 | 11 | 12 | 19 |
| Concordia College at Moorhead | 0 | 0 | 6 | 11 | 10 |

Finance: The relative size (% of total graduates) of Business and Economics degrees conferred at Drew was 15.9%, which was comparable to the combined relative size of these majors at peer institutions (12.8%). The inclusion of additional business programs at peer institutions corresponds with a greater percentage of degrees conferred, suggesting that these programs would yield overall enrollment growth. For example, finance majors constituted 4.9% of degrees conferred at these institutions, which would correspond to 18 degrees at Drew using the Fact Book total of 370. Given Drew's 70% retention rate for the 4th year, 18 degrees conferred would correspond to 25 first-year students. To estimate the number of new matriculants, we assume that 75% of finance majors will be new to Drew since it is one of the most frequently identified program by prospective/non-applicant students as the reason for not applying. Although this program would begin in Fall 2020, enrollment projections do not begin until AY 2021-22 since a spring 2020 approval of the program would not impact recruitment for fall 2020.

Table 7. Finance Target Enrollment Projections

| Target Enrollment Projections | | | | | | |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Class | Retention | FY22 | FY23 | FY24 | FY25 | FY26 |
| First-year | | 12 | 15 | 18 | 18 | 18 |
| Sophomore | 85% | | 10 | 13 | 15 | 15 |
| Junior | 75% | | | 9 | 11 | 14 |
| Senior | 70% | | | | 8 | 11 |
| Total | | 12 | 25 | 40 | 53 | 57 |

Competitor analysis: There are 15 four-year colleges in NJ offering Finance, and some of our direct competitors in PA and NY also offer it (e.g., Muhlenberg). The good news for NJ is that we would be a stronger academic option than most others (i.e., Felician, Georgian Court, St. E's, Bloomfield, etc.), which would make our distinctive programs attractive. As an independent liberal arts university, we would

provide more individualized mentoring compared to many of the remaining NJ competitors (i.e., Montclair and Rutgers).

One important question that arises is what the effect is on current business offerings. It is reasonable to wonder whether the increase in enrollments in marketing, accounting, and finance will come at the expense of students who would otherwise have declared a general business major. Our research of other liberal arts institutions with business programs suggest this is unlikely to be the case. It should be noted that the four institutions listed above also offer a degree in business administration and management, which continue to be among the largest majors on campus. For example, Muhlenberg graduates 37 majors in Finance annually (3-year average, 2014-16) while also graduating over 100 students in business. The Business major also tops the list of existing Drew majors that could expand, with an average of 57 additional majors at four high app schools. The data thus shows the potential for significant enrollment increases by allowing students to specialize in distinct and recognizable business disciplines.

10. Anticipated start-up costs:

There are no new start-up costs anticipated for the finance major since it relies essentially on existing courses and infrastructure.

11. Anticipated annual program costs (including adjunct, library, and lab staffing) (use chart):

In addition to the faculty and staff costs described above, there are capital expenditures and other costs to consider, including:

- Business lab, possibly located on the second floor of the library. The capital costs (e.g., architectural renderings, construction costs, furniture, technology needs) require fundraising. Staffing could be shared with the proposed Media & Communication lab.
- Programming costs (evening events, field trips to NYC and NJ, etc.)
- Technology and supplies
- Accreditation

The true financial benefit comes from launching both accounting and marketing, as the fixed costs of the business lab and the additional staff is spread out across additional students. Furthermore, the Master in Finance program along with anticipated additional graduate business programs can be strengthened by these increased investments. Table 8 shows a five-year projection of expenses for all new business programs, including accounting and marketing, assuming target enrollment goals are met. Additional faculty lines are not necessary for the new major in finance.

Table 8. Budget Projections.

| | FY 21 | FY 22 | FY 23 | FY 24 | FY 25 |
|------------------------------|-------|-----------------|-------|-------|-------|
| TT Accounting Hire (salary + | | Start fall 2021 | | | |

| | | | | | |
|--|-----------------|------------------|------------------|------------------|----------|
| benefits) | | | | | |
| TT Accounting Hire, 2nd (salary + benefits) | | | Start fall 2022* | | |
| TT Marketing Hire (salary + benefits) | Start fall 2020 | | | | |
| TT Marketing Hire, 2nd (salary + benefits) | | | Start fall 2022* | | |
| Staff, Dir. of Experiential Business Learning | Start fall 2020 | | | | |
| Supporting Faculty 1 (salary + benefits)** | Start fall 2020 | | | | |
| Supporting Faculty 2 (salary + benefits)** | | Start fall 2021* | | | |
| Supporting Faculty 3 (salary + benefits)** | | | Start fall 2022* | | |
| Supporting Faculty 4 (salary + benefits)** | | | Start fall 2022* | | |
| Supporting Faculty 5 (salary + benefits)** | | | | Start fall 2023* | |
| Number of adjunct-taught courses | 4 | 6 | 8 | 8 | 8 |
| Adjunct (salary + benefits) | \$20,160 | \$30,240 | \$40,320 | \$40,320 | \$40,320 |
| Business Lab Software Subscriptions | | \$65,000 | \$65,000 | \$65,000 | \$65,000 |
| Library Materials | \$6,000 | \$6,000 | \$12,000 | \$12,000 | \$12,000 |
| Programming | \$5,000 | \$10,000 | \$10,000 | \$10,000 | \$10,000 |
| NYC TREC in Marketing | | \$40,000 | \$40,000 | \$40,000 | \$40,000 |
| Supplies | \$6,000 | \$6,000 | \$12,000 | \$12,000 | \$12,000 |
| If target enrollments for <i>new</i> students are met, revenue covers all expenses and produces a profit in every fiscal year. | | | | | |

* Hires in subsequent years are contingent on hitting enrollment targets.

** "Supporting faculty" are additional lines that would be allocated through Dean's Council's process. Areas most likely impacted by growing enrollments in business include Media & Communications, Computer Science, Ethics, Economics, Writing, and Digital Art and Design.

APPENDIX 1: ACBSP UNDERGRADUATE COMMON PROFESSIONAL COMPONENT

| |
|---|
| Functional Areas |
| a. Marketing b. Business Finance c. Accounting d. Management, including Production and Operations Management, Organizational Behavior, and Human Resources Management |
| The Business Environment |
| e. Legal Environment of Business f. Economics g. Business Ethics h. Global Dimensions of Business |
| Technical Skills |
| i. Information Systems j. Quantitative Techniques/Statistics |
| Integrative Areas |
| k. Business Policies or l. A comprehensive or integrating experience that enables a student to demonstrate the capacity to synthesize and apply knowledge and skills from an organizational perspective. |

Note: If your institution deviates significantly from these historically-proven coverage levels, you must explain your explicit rationale for the reduced requirements and provide performance evaluation results to demonstrate that your coverage is sufficient, as related to your program objectives.

source: ACBSP.org

[MS in Data Analytics-Revision](#)

Proposals for Revision of an Existing Major

Proposals for significant revisions to existing majors must be submitted for CAPC review 4 weeks before the CLA faculty meeting at which the department hopes to have the major revisions presented. Earlier submission allows for more time for comments and questions before a proposal is finalized for presentation to the faculty. Before presenting a proposal to the CAPC, Departments are expected to consult with the other departments in their division and with any other departments whose offerings or majors will be affected by the revisions.

Proposals should include all of the sections outlined below and should be introduced by the Major Proposal Submission Cover Sheet.

I. Rationale

What is the rationale for the department's proposal to revise the major at this time? Is there assessment data to support the revision? Are the revisions a response to an external review of the department? How do the revisions relate to the objectives articulated in your five-year plan? Are there external benchmarks for the major such as national association standards or comparable programs at our comparison or peer institutions which are being used in the revision?

The Master's program in Data Analytics started in Fall 2019. It was designed for students who had taken as undergraduates at least one course in programming and at least one in statistics. We designed the program under the assumption that students would have some proficiency in these two areas. However, it has turned out not to be the case. We have chosen to adjust the courses in the program to accommodate the student need for more introductory level material so that they can be better prepared for our more advanced offerings.

The program is new, so have not yet conducted formal assessment, but it was obvious from the start that we had overestimated the initial abilities of the students we would recruit.

II. Learning Objectives

How has the department defined its learning objectives? How do the major revisions address these objectives and more fully implement them?

We have amended the SLOs slightly.

Here is the original list of SLOs with the curriculum map:

Upon completion of the Master of Science in Data Analytics, students should be able to:

SLO1. Implement data management plan(s) for the collection, cleaning, and storage of real-world data.

SLO2. Align analytic methodologies with specific data sets and research questions.

SLO3. Analyze authentic big data sets to support data-driven decision-making.

SLO4. Communicate data-driven conclusions based on an analysis of real-world data to a non-technical audience.

| Course | Name | SLO1 | SLO2 | SLO3 | SLO4 |
|----------|---|------|------|------|------|
| DATA 501 | Intro, Hist, etc. | I | I | I | I |
| DATA 502 | Data Visualization and Communication | I | | I | I, P |
| DATA 503 | Applied Regression Analysis | | P | P | P |
| DATA 504 | Network and Text Mining | P | P | | |
| DATA 551 | Modeling and Simulation | | P | P | P |
| DATA 552 | Data Analytics Using SQL and Relational Databases | P | | | |
| DATA 601 | Statistical Machine Learning | | P | P | P |
| Varies | Elective | P | P | P | P |
| DATA 680 | Data Analytics Internship | M | M | M | M |
| DATA 688 | Capstone: Case Studies in Data Analytics | M | M | M | M |

The modified SLOs and curriculum mapping are:

By the end of this course of study, students will be able to

3. Implement data management plan(s) for the collection, cleaning, and storage of real-world data.
4. Carry out relevant analyses, interpret and apply the results to solve specific data-related problems.
5. Design statistical analyses and implement them with advanced statistical tools.
6. Find and select appropriate data that can be used to create a visualization, and design effective data visualizations to communicate information to the appropriate parties.

| Course | Name | SLO1 | SLO2 | SLO3 | SLO4 |
|----------|--|------|------|------|------|
| DATA 505 | Statistics Using R | I | I | I | I |
| DATA 506 | Computational Thinking/Programming in Python | I | I | I | I |
| DATA 502 | Data Visualization and | I | | I | I, P |

| | | | | | |
|------------------------|---|---|---|---|---|
| | Communication | | | | |
| DATA 503 | Applied Regression Analysis | | P | P | P |
| DATA 504 | Network and Text Mining | P | P | | |
| DATA 551 (elective) | Modeling and Simulation | | P | P | P |
| DATA 552 | Data Analytics Using SQL and Relational Databases | P | | | |
| DATA 601 | Statistical Machine Learning | | P | P | P |
| Varies | Elective | | | | |
| DATA 680 | Data Analytics Internship | M | M | M | M |
| DATA 688 | Capstone: Case Studies in Data Analytics | M | M | M | M |

The proposed changes will make the student better prepared for advanced courses. For example, the programming course will help students understand how to work with advanced data structures and improve their understanding of data needs. This is related to SLO1. Similarly, the statistics course will help them be prepared for regression and machine learning courses which are directly related to SLO2, and SLO3.

II. Proposed Changes to the Curriculum

- a. Explain each proposed change to the major individually;
- b. Provide comparison between new major and old major;
- c. Provide complete revised catalogue copy for the new major exactly as you wish it to appear in the next catalogue and in the on-line catalogue.

Where a large number of courses are being changed, dropped or re-numbered, a summary table such as the one below would be useful.

| Offerings | | | Actions | | | |
|----------------|-----------------|--------------------|---------|------|----------|-----------------------------|
| Current Course | Proposed Course | Title | Add | Drop | Renumber | Change Title or Description |
| | DATA 505 | Statistics Using R | X | | | |

| | | | | | | |
|----------|----------|--|---|---|--|--|
| | DATA 506 | Computational Thinking/Programming in Python | X | | | |
| DATA 501 | | Introduction to Data Analytics | | X | | |
| DATA 551 | | Modelling and Simulation | | X | | |

- We propose that we add DATA 505 and 506 to the required curriculum. They incorporate and augment the material that was in DATA 501. We also propose that we drop DATA 501 and 551 from the required curriculum. We will keep DATA 551 in the catalog so that, if there is demand in the future, we can offer it as an elective in the program. While DATA 501 has been dropped from the curriculum, its component skills have been incorporated into DATA 505 and DATA 506, with the ethical and case studies being in DATA 505 (with additional preparation and background added) and the data acquisition and cleaning skills being in DATA 506. Such The need for an additional electivaea need could occur, for example, if we start to enroll students who do not need DATA 505 and/or DATA 506.

Course offerings for the transition will be:

| |
|--|
| Spring 2020 |
| Data 552 - Data Analytics using SQL and Relational DatabasesSQL for big Data |
| Data 601 - Statistical Machine Learning |
| Data 551 - Modeling and Simulation |
| Data 602 - Topics in Data analytics |
| Fall 2020 |
| Data 504 - Network and Text Analytics |
| Data 505 – Statistics Using R |
| Data 506 – Computational Thinking/Programming in Python |
| Data 502 - Data Visualization |
| Spring 2021 |
| Data 502 - Data Visualization |
| Data 503 - Applied Regression |
| Data 552 - Data Analytics using SQL and Rrelational Databases |
| Data 601 - Statistical Machine Learning |

- The old major assumed that students have the necessary skills in programming and statistics. With the proposed changes, we ensure that students have those skills before they take more advanced courses. Moreover, potential students will find the program more comprehensive as they acquire the knowledge in programming and statistics as part of the curriculum.
- I have pasted the updated catalog copy below

The changes to the catalog may be summarized as:

Everywhere that DATA 501 and DATA 551 were required, replace them with DATA 505 and DATA 506.

Data Analytics

About the Program

The digitization of information, including archives and library collections, business transactions, healthcare records, and social networks, just to name a few, has transformed the world. The exponential growth of digital information leading to big data sets necessitates a new set of digital skills and technologies in order to extract and make meaning from these data. Data management, extraction, analysis, communication, visualization, computer simulation, and modeling are increasingly used for research and inquiry across all academic disciplines and are used in an array of industries. 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). With this digital transformation of academia and the workforce, it is not surprising that data science and data analytics jobs are projected to grow at some of the fastest rates in the near future.

The Data Analytics program is an applied program that teaches students how to draw information from data. The curriculum involves courses in statistics, data science, and programming, as well as applied data analytics projects and internship opportunities across many different disciplines and industries. Students complete the program with a portfolio of data analytics projects highlighting the application of their skills to internship and case study projects.

Advanced Research

Data Analytics students focus on the intersection of statistics and computer science, with content knowledge from another discipline or industry and an emphasis on applying skills and technologies in case studies courses, internships, and capstones aligned with a student's interests. Experiential learning is a critical component of this curriculum, in line with Drew University's mission across all three schools.

Curricular Components

Courses emphasizing **Big Data** explore how to obtain, prepare, and manage data from a wide variety of sources. Students work with big data scraped from the web and from social media.

Courses emphasizing **Data Analysis** explore how to master various data analytical techniques. Students apply data analytics to numerous disciplines, through data analysis, visualization, computer simulation, and computer modeling. Students learn the uses, potential, and limitations of the tools of computing technology as a foundation for research and knowledge acquisition in disciplines and in society.

Courses emphasizing **Communication** of data-driven conclusions explore the results based on an analysis of real-world data. Students work collaboratively. Applied data science is multidisciplinary involving the interplay between statistics, computer science, and different disciplines. The focus of all classwork is on practical applications and the communication of results. Students leave the program with a portfolio of project work and with work experience from their internships.

Programs

- ◆ [Data Analytics Certificate: Business Analytics](#)
- ◆ [Data Analytics Certificate: Data Science](#)
- ◆ [Data Analytics Certificate: Statistics](#)
- ◆ [Master of Science in Data Analytics](#)

Data Analytics Certificate: Business Analytics

Prerequisites

Must be taken prior to enrolling in any Data Analytics Certificate program.

- [MATH 117 - Introductory Statistics](#) or equivalent or permission of Department Chair
- [CSCI 149 - Introduction to Programming](#) or equivalent or permission of Department Chair

Business Analytics (12 credits)

- ◆ DATA 505 – Statistics Using R
- ◆ DATA 506 – Computational Thinking/Programming in Python
- ◆ [FIN 504 - Financial Quantitative Analysis](#)
- ◆ [FIN 622 - Computational Finance and Large Data Analysis](#)

Data Analytics Certificate: Data Science

Prerequisites

Must be taken prior to enrolling in any Data Analytics Certificate program.

- ◆ [MATH 117 - Introductory Statistics](#) or equivalent or permission of Department Chair
- ◆ [CSCI 149 - Introduction to Programming](#) or equivalent or permission of Department Chair

Data Science (12 credits)

- ◆ DATA 505 – Statistics Using R
- ◆ DATA 506 – Computational Thinking/Programming in Python
- ◆ DATA 502 – Data Visualization
- ◆ DATA 552 -- Data Analytics Using SQL and Relational Databases SQL for Big Data

Data Analytics Certificate: Statistics

Prerequisites

Must be taken prior to enrolling in any Data Analytics Certificate program.

- ◆ [MATH 117 - Introductory Statistics](#) or equivalent or permission of Department Chair
- ◆ [CSCI 149 - Introduction to Programming](#) or equivalent or permission of Department Chair

Statistics (12 Credits)

- DATA 505 – Statistics Using R
- DATA 506 – Computational Thinking/Programming in Python
- [DATA 503 - Applied Regression Analysis](#)
- [DATA 601 - Statistical Machine Learning](#)

Master of Science in Data Analytics

Degree Requirements (30-36 credits)

Foundational Courses (6 credits)

Must be taken prior to enrolling in Data Analytics Core Courses

- ◆ [MATH 117 - Introductory Statistics](#) or equivalent or permission of Department Chair
- ◆ [CSCI 149 - Introduction to Programming](#) or equivalent or permission of Department Chair

Required Courses (30 credits)

I. Core Courses (21 credits)

3. [DATA 505 – Statistics](#) Using R
4. DATA 506 – Computational Thinking/Programming in Python
5. [DATA 502 - Data Visualization and Communication](#)
6. [DATA 503 - Applied Regression Analysis](#)
7. [DATA 504 - Network and Text Mining](#)
8. [DATA 552 - Data Analytics Using SQL and Relational Databases](#) [SQL for Big Data](#)
9. [DATA 601 - Statistical Machine Learning](#)

II. Required Capstone Courses (6 credits)

4. [DATA 680 - Data Analytics Internship](#)
5. [DATA 688 - Capstone: Case studies in Data Analytics](#)

III. Elective Course (3 credits)

2. DATA 551 – Modeling and Simulation
3. [DATA 602 - Topics in Data Analytics](#)
4. [DATA 610 - Independent Study in Data Analytics](#)
5. [FIN 504 - Financial Quantitative Analysis](#)
6. [FIN 622 - Computational Finance and Large Data Analysis](#)

IV. Impact on Other Departments

How will other departments be affected by the revision of this major? Will the proposed major depend on courses from other departments? Will the proposed major offer courses that might be cross-listed by other departments? Will the proposed major have a significant impact on enrollments in other departments/programs? Have you consulted with these departments and worked with them to ensure that their programs will not be adversely affected but this major revision? Does the proposed major offer increased possibilities for interdisciplinary collaboration?

The only possible impact on any other programs might be on the MFIN. Students who need an additional elective have been taking [FIN 622 - Computational Finance and Large Data Analysis](#). Because MFIN students who need an additional elective in their own program have been taking classes in the MS Data Analytics, these have balanced out and been beneficial to both programs.

V. Transition Plan

**This part has been removed from the proposal to protect student information; for questions about student transition plans please consult the Associate Dean

VI. Revision of Minor

Outline any changes to minor requirements necessitated by the revision of the major.

There is no minor

VII. Course Proposals

Attach complete course proposal forms for each new and revised course included in the revised major. Ferdi should create a course description for 506 and Ellie for 505 and I will complete the rest of the forms.

We are also making changes to some of the course descriptions for the other courses. Please verify that these are correct.

Course proposal forms for the two new courses were sent attached to the same email as this revision proposal form.

Proposed Changes to Course Names and Descriptions for Data Analytics

| Course and Number | Old Title | Old Description | New Course Title and Description |
|-------------------|--|--|---|
| DATA 501 | Data Analytics: Introduction, History, and Case Studies. | An introduction to data analytics centered around small projects and case studies. Basic techniques for data acquisition, public data sources, privacy and security, and ethical and legal | This course should be deleted from the catalog. |

| | | | |
|----------|--------------------------------------|---|--|
| | | issues. Case studies will include uses of data and data analytics in industry and public policy and examples of data journalism. | |
| DATA 502 | Data Visualization and Communication | A survey of techniques and tools for effectively visualizing and communicating small and large data sets in informative ways for a variety of audiences. Applications include ggplot, Tableau, Excel, and interactive visualizations using R shiny. | <p>Title: Data Visualization</p> <p>This course introduces principles and techniques of data visualization to improve the understanding of complex data and models. This is a hands-on course. Students will use several tools to refine their data and create visualizations.</p> <p>This course is moved to spring</p> |
| DATA 503 | Applied Regression Analysis | This course covers methods of regression analysis including simple, multiple, and logistic regression, explanation, prediction, diagnostics, model selection, and models with categorical predictors. | This course is designed to provide students with a deep understanding of the theory and practice of regression, one of the most commonly used techniques in the data scientist's toolkit. It covers methods of regression analysis including simple, multiple, and logistic regression, explanation, prediction, diagnostics, model selection, and models with categorical predictors. Computation in this course will be based on software package R, which is used extensively in labs and assignments in this class and subsequently reappears in other classes throughout the program. |
| DATA 504 | Network and Text Analytics | This course will cover the data analytic aspects of three closely related topics: Web search, recommendation systems, and social network analysis. | Move this course to spring |

| | | | |
|----------|--|---|---|
| | | The emphasis is on data acquisition, probabilistic and statistical methods, user behavior modeling, and dynamic behavior and structure co-evolution in social networks. | |
| DATA 505 | Statistics Using R | New Course | <p>DATA 505</p> <p>Title: Statistics Using R</p> <p>This course introduces students to contemporary analytics methods and the R programming language, including predictive and descriptive analytics techniques. , and demonstrates how to practically apply analytics to real-world decisions.Students practically apply statistics to real-world decisions through small projects relevant to industry, public policy, and data journalism. Content includes basic techniques for data acquisition, and ethical and legal issues.</p> |
| DATA 506 | Computational Thinking/ Programming in Python | New Course | <p>Title: Computational Thinking/ Programming in Python</p> <p>This course introduces the essential general programming concepts and techniques relevant to data analysis and machine learning. The basics of imperative programming will be covered as well as selected areas of computer science, object-oriented programming and data structures. The goal is to equip the students with the necessary programming skills to be</p> |

| | | | |
|----------|---|--|---|
| | | | <p>successful in the other courses in the program. Topics covered include: Data sourcing and cleaning with NumPy and Pandas, Jupyter notebook, version control, and Docker. Python's specifics (such as NumPy, Pandas, Jupyter notebook), version control, and Docker.</p> |
| DATA 551 | Modeling and Simulation | <p>This course covers methods for modeling and simulating systems using a variety of techniques, including statistical models, Monte Carlo simulations, agent-based models, and machine learning. Students will also be introduced to the basics of Bayesian analysis and Markov Chain Monte Carlo (MCMC) techniques</p> | <p>This course becomes elective</p> <p>The course covers techniques for modeling and simulating random systems that are otherwise complicated to study. Topics include sampling from probability distributions, approximate sampling, Monte Carlo and MCMC methods, bootstrap, and simulation based inference.</p> |
| DATA 552 | Data Analytics Using SQL and Relational Databases | <p>This course will cover the use of SQL databases and the SQL language to manage and query big data. Students will also learn to use Unix and other tools to prepare data.</p> | <p>Title: Data Analytics using SQL and Relational Databases</p> <p>Databases makes it possible to store and retrieve information efficiently and securely across multiple users and platforms. Expertise in database design and SQL are crucial skills. This course is designed to help students develop these skills.</p> <p>The preparation of data (collecting, loading, organizing etc.) can take more than 80% of the time allocated for analytics projects. This course will demonstrate how relational database design coupled with efficient programming can reduce the burden of</p> |

| | | | |
|----------|-------------------------------------|--|---|
| | | | handling messy data. |
| DATA 601 | Statistical Machine Learning | <p>This course provides students with an introduction to statistical machine learning techniques for analyzing data using the statistical programming language R. Emphasis will be on supervised learning methods such as regression, k-nearest neighbors, discriminant analysis, naive Bayes, decision trees, network analysis, as well as model assessment tools such as cross-validation.</p> | <p>Title: Machine Learning</p> <p>This course is designed to provide students with a deep, practical understanding of several of the most common and powerful analytical machine learning techniques in use by today's data scientists such as resampling methods, non-linear methods, Tree-Based Methods, Support Vector Machines, and, from the Unsupervised Learning family of techniques, Cluster Analysis and Association Analysis.</p> |
| DATA 602 | Topics in Data Analytics | <p>Depending on instructor availability and interest. Potential topics include Business Analytics, Time Series Analysis, Spatial Analysis of Data using GIS, Generalized Linear Model and Categorical Data Analysis, Computational modeling of neural systems</p> | |
| DATA 610 | Independent Study in Data Analytics | | |
| DATA 680 | Data Analytics Practicum | Industry internship or research project | |

| | | | |
|----------|--|---|--|
| | | with faculty supervision from relevant discipline | |
| DATA 688 | Capstone: Case Studies in Data Analytics | In this course, students will explore data analytic case studies from diverse industries with attention to project goals, method selection, ethical considerations, and data privacy. | |
| DATA 602 | Business Analytics | | <p>Business Analytics</p> <p>This course introduces the key concepts of data analytics as applied to solving data-centered business problems. Students will be able to describe, predict, and make business decisions in the specific areas of marketing, human resources, finance, and operations. It emphasizes principles and methods covering the process from envisioning the problem; applying data science techniques; deploying results; and improving financial performance, strategic management, and operational efficiency.</p> |
| DATA 602 | Deep Learning | | <p>This course will introduce the student to neural networks, Convolution Neural Networks (CNN), Long Short-Term Memory (LSTM), Gated Recurrent Neural Networks (GRU), General Adversarial Networks (GAN) and reinforcement learning. Application of these architectures to computer vision, time series, security, natural language processing (NLP), and data generation will be covered. The emphasis is primarily upon the application of deep learning to problems, with some</p> |

| | | | |
|--|--|--|---|
| | | | introduction to mathematical foundations. Students will use the Python programming language to implement deep learning using Google TensorFlow and Keras. |
|--|--|--|---|

For Information:

New Courses:

CSCI 250/Web Application Development

A survey of technologies for developing web-based software, such as client-server computing, visual design and user experience, front-end and back-end development, persistent data storage with databases, as well as an introduction to security issues in web applications. Prerequisite: CSCI 149 or CSCI 150 with a grade of C- or better. Offered fall even years.

CSCI 255/Introduction to Cybersecurity

The aim of this course is to help students understand the enduring crisis of cyber security from both technical and social perspectives. Topics include technical and social constructions of cyberspace, malicious content, social media related risk, secure online activity, protection of privacy, as well as cultural and ethical dimensions of cyber security. Prerequisite: CSCI 149 or CSCI 150 with a grade of C- or better. Offered every fall.

DATA 505/Statistics Using R

Course material consists of contemporary statistical methods and the R programming language, including predictive and descriptive techniques. Students practically apply statistics to real-world decisions through small projects relevant to industry, public policy, and data journalism. Content includes basic techniques for data acquisition, and ethical and legal issues.

DATA 506/Computational Thinking/Programming in Python

This course includes the essential general programming concepts and techniques relevant to data analysis and machine learning. Imperative programming will be covered as well as selected areas of computer science, object-oriented programming and data structures. The goal is to equip the students with the necessary programming skills to be successful in the other courses in the program. Topics covered include: Data sourcing and cleaning with NumPy and Pandas, Jupyter notebook, version control, and Docker.

Changes to Existing Courses:

DANC 220/Movement for the Musical Stage

◆ **Description change**

Current:

DANC 220/Movement for the Musical Stage

An exploration of various movement and dance styles utilized in musical theatre. The first half of the semester will focus on the technique of Jazz dance, exposing students to a specific anatomical use

particular to that style and combinations influenced by the historical jazz genre. Among the other styles that may be included in the remainder of the semester are ballroom, swing, and tap.

Proposed:

DANC 220/Movement for the Musical Stage

Movement for the Musical Stage is an exploration of dance in American musical theater. Students will analyze exemplars of musical theater; experience elements of dance and strategies of improvisation; and apply choreographic tools and processes to create, individually and collaboratively, original movement studies and compositions. This is not a technique class. No prior dance training required.

Changes to Existing Major/Minor:

Computer Science Major/Minor

- ◆ Adding new courses CSCI 250/Web Application Development and CSCI 255/Introduction to Cybersecurity

Computer Science Major

III. Four Intermediate- or Upper-Level Topics Courses in CSCI

CSCI 250/Web Application Development

CSCI 255/Introduction to Cybersecurity

CSCI 290 - Introductory Topics in Computer Science

CSCI 330 - Databases & Information Management

CSCI 335 - Functional Programming

CSCI 345 - Mobile Application Development

CSCI 350 - Computer Networks & Security

CSCI 360 - Operating Systems

CSCI 390 - Advanced Topics in Computer Science

Computer Science Minor

I. Intermediate and Upper-Level (12 credits)

CSCI 230 - Data Structures

CSCI 250/Web Application Development

CSCI 255/Introduction to Cybersecurity

CSCI 260 - Computer Systems & Architecture

CSCI 270 - Computing Technology, Society and Culture

CSCI 290 - Introductory Topics in Computer Science

CSCI 300 - Independent Study in Computer Science

CSCI 305 - Research Studio

CSCI 330 - Databases & Information Management

CSCI 335 - Functional Programming

CSCI 340 - Software Engineering

CSCI 345 - Mobile Application Development

CSCI 350 - Computer Networks & Security

CSCI 360 - Operating Systems

CSCI 370 - Algorithm Analysis and Computability

CSCI 390 - Advanced Topics in Computer Science

CSCI 400 - Computer Science Capstone

Data Analytics Major

- ◆ **Removing DATA 501/Introduction to Data Science**
- ◆ **Adding new courses DATA 505/Statistics Using R and DATA 506/Computational Thinking/Programming in Python**

Enrollment Report
Faculty Meeting 5-7-2020

Bob Herr
Vice President for Enrollment Management &
Dean of College Admission

Upcoming Admissions events:

Virtual Discover Drew Day: May 17, 2020

Virtual Information sessions: Monday and Fridays

2020 Admissions Update:

Below is a chart with the current Fall 2020 admissions numbers for applications, admitted students, and deposited students as of May 1.

| 1st year | Fall 2018 | Fall 2019 | Fall 2020 |
|----------------------------|------------------|------------------|------------------|
| Applications | 3828 | 4000 | 4056 |
| Admits | 2604 | 2788 | 2855 |
| Deposits | 417 | 380 | 256 |

| Transfers | Fall 2018 | Fall 2019 | Fall 2020 |
|------------------|------------------|------------------|------------------|
| Applications | 168 | 112 | 110 |
| Admits | 95 | 72 | 74 |
| Deposits | 28 | 27 | 18 |

Since the April meeting we passed the original May 1st deposit deadline. However, with the extension of that deadline until June 1st, our comparative data is no longer as meaningful. We did see some deposit activity around May 1st and over the weekend. We know there are still many students still interested in Drew, but who will not submit the actual deposit until closer to June 1st. One of the outstanding issues we are facing is the uncertainty families are feeling as to whether or not our fall semester will be virtual or in-person. Once that determination is made, most likely we will see movement in deposits (or withdraws).

While I remain positive that we still have many more students who will decide to enroll at Drew, our ability in achieve the original goal of 425 first year students remains in question. Of course, there was no way to plan for or anticipate the full impact of a pandemic on the enrollment. We are continuing to engage with students and their families virtually, via phone, text, and email.

Likewise, transfer deposits have stalled mainly due to the uncertainty expressed above. We do expect some additional movement once our plans become more definitive.

Thanks again to all of the professors who offered up their classes for “virtual classroom visits”, as well as all of those who have assisted on our webcasts and who have answered student questions the past few weeks. We appreciate all of the support you have given to the enrollment initiatives this year. We looking forward to reconnecting in person with you all sometime soon.

MSCHE Self-Study Update Report

May 2020

Status of Middle States Self-Study

- Evaluation team chair selected: Dr. Margaret Drugovich, President of Hartwick College
- Chair preliminary visit tentatively scheduled for October 8, 2020
- Evaluation team visit scheduled for March 21-24, 2021
- Faculty and staff feedback survey:
 - 56 faculty responses, 32 staff responses, 4 other
 - There is still time for you to complete the survey!
 - Steering committee is organizing comments thematically and will share full report of feedback later in May
- Self-study co-charis met with Drew Staff Association Executive Board
- Self-study co-chairs met with all four student government groups and collected student feedback via discussions and a Google form (79 responses)
- Working groups are drafting chapters; drafts due June 6, 2020

Next Steps

- Working group chairs will finalize chapter drafts.
- Steering Committee will combine drafts and work to produce a full self-study draft.

Documentation

The UKNOW Middle States site contains the approved Self-Study Design document, copies of PowerPoint presentations related to the self-study, and minutes from Steering Committee meetings. Working group drafts, when available, will be posted on this site.

Please send any questions or comments to middlestates@drew.edu.

Academic Standing Committee Report: AY 2019-2020

The Academic Standing Committee (ASC) considered 606 petitions during the 2019-2020 academic year. See below for a summary of decisions, and for more detail regarding the various types of petitions considered.

In addition, the ASC took a number of other actions:

- The Chair consulted with the Dean’s Council to revise the committee description.
- In consultation with the registrar, the ASC developed / revised guidelines to be used when students request exceptions to full-time status, and to requirements for taking part in the commencement ceremony.
- The ASC worked with the Internship Office to formalize and streamline processes for the off-academic-calendar addition of internships.
- The ASC advised on academic policies related to the transition to Drew Virtual Time in light of Covid-19, and in the implementation of new policies.

For your FYI: Due to the Covid-19 pandemic, the Department of Education has relaxed criteria for Satisfactory Academic Progress policies. For specific information, faculty and students may contact Associate Provost Judy Redling at jredling@drew.edu.

| | Total Petitions | Approved | Denied | Hold | Refer to CAPC | No action | Invalid petition | Student Withdrew Petition |
|---------------|------------------------|-----------------|---------------|-------------|----------------------|------------------|-------------------------|----------------------------------|
| Summer | 94 | 79 | 1 | 10 | 1 | 2 | 0 | 1 |
| Fall | 241 | 196 | 13 | 18 | 4 | 8 | 0 | 2 |
| Spring | 271 | 172 | 25 | 48 | 4 | 20 | 0 | 2 |
| TOTAL | 606 | 447 | 39 | 76 | 9 | 30 | 0 | 5 |

| Type of Petition Considered | Summer | Fall | Spring |
|------------------------------------|---------------|-------------|---------------|
| Add Course After Deadline | 4 | 78 | 63 |
| Change Course to Pass/Fail | | 4 | 1 |
| Change Number of Course Credits | 1 | 6 | 5 |
| Course Credit Designation | | 4 | |
| Exceed Credit Limit | 1 | 20 | 32 |

| | | | |
|--|-----------|------------|------------|
| Extend Incomplete | 4 | | 2 |
| Extend Leave of Absence | 1 | | 2 |
| Final Grade Change (By Faculty) | 7 | 17 | 9 |
| Foreign Language Waiver | 1 | 2 | 4 |
| Grade Forgiveness | 5 | 8 | 10 |
| Late Request to Add/Change Internship | 8 | 13 | 11 |
| Re-Entry | 12 | 18 | 19 |
| Request to Complete Degree | | 3 | 1 |
| Request to Convert Honors Thesis | | 2 | 8 |
| Request to Participate In May Graduation | | 1 | 11 |
| Retroactive Incomplete | | 3 | |
| Retroactive Leave of Absence | | 1 | 2 |
| Retroactive Withdrawal | | 6 | |
| Exception to Required Withdrawal | | | 16 |
| Satisfactory Progress (SAP) Appeal | 41 | 1 | 37 |
| Switch Sections of a Course | | | 2 |
| Under-Enrolled Spring 2020 | | 6 | 10 |
| Waive Requirement | | 1 | 2 |
| Withdraw From Course After Deadline | 6 | 47 | 15 |
| Other | 3 | | 9 |
| Total | 94 | 241 | 271 |

*Petitions filed between 5/22/19 and 8/19/19 were included in the Summer count, between 8/20/19 and 1/12/20 were included in the Fall count, and between 1/13/20 and 5/4/20 were included in the Spring count.

CAE Update/Summary: Faculty Meeting Spring 2020

This summary contains the following data and updates 1) CAE Spring Data at a Glance 2) Policies Update 3) Needs/Looking Ahead 4) CAE Collaboration

1) CAE Spring DATA at a Glance (Jan 1 - May 2, 2020)

Terminology Key:

- **Appointments:** Represent individual, small group, and other support formats; Used as access points/portal for other support formats.
- **Unique clients/clients:** the number of individual or *unique* clients with appointments. If one client made ten appointments, that is one "client with appointments" here.
- **Client Report Form (CRF):** Tutor submitted reports documenting the session; required for Individual Appointments.
- **Graduate Writing Specialist:** Full time, professional CAE Staff
 - NOTE: This position was eliminated for the spring 2020. Graduate students made appointments with UWC writing specialists. [Please see updates on graduate writing support here.](#)
- **Writing Specialists:** CLA students & three (3) CSGS students supporting writing across the University.

CAE CLA Support SP19 - SP20

| | SP19 Appointments / Unique Clients | SP 20 Appointments / Unique Clients |
|--|--|---|
| Appointments Individual/Small Group | 1322 appts; 325 unique clients | 801 appts; 181 unique clients |
| | | 448 appts. Pre-DVT 353 appts. DVT |
| New clients | 123 | 104 |

University Writing Center (UWC) Support SP19 - SP20

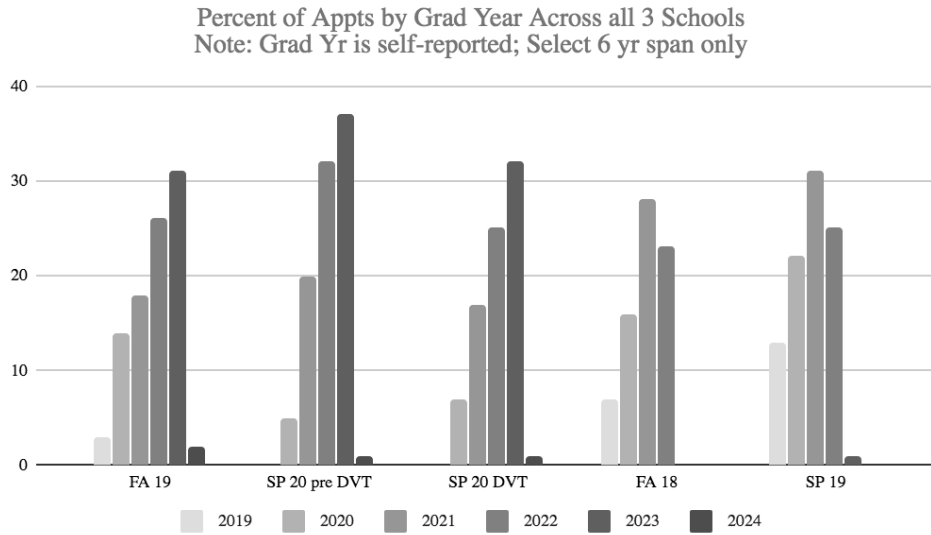
| | SP19 Appointments / Unique Clients | SP 20 Appointments / Unique Clients |
|---|--|---|
| Graduate Writing Specialist | 180 / 47 | N/A |
| Writing Specialists (includes graduate writing support) | 304 / 114 | 531/143 |
| | | 274 appts. Pre-DVT 257 appts. DVT |
| TOTAL | 484 / 161 | 531/143 |

Appointments by Focus (Broad Category)

| | SP 19 | SP 20 Pre DVT | SP 20 DVT |
|-----|-------|---------------|-----------|
| UWC | 33% | 33% | 41% |

| | | | |
|-------------------|-----|-----|-----|
| Academic Coaching | 21% | 5% | 2% |
| Arts/Humanities | 8% | 8% | 4% |
| FLanguage | 4% | 9% | 10% |
| Math/Science | 27% | 40% | 38% |
| CSGS/THEO | 7% | 4% | 5% |

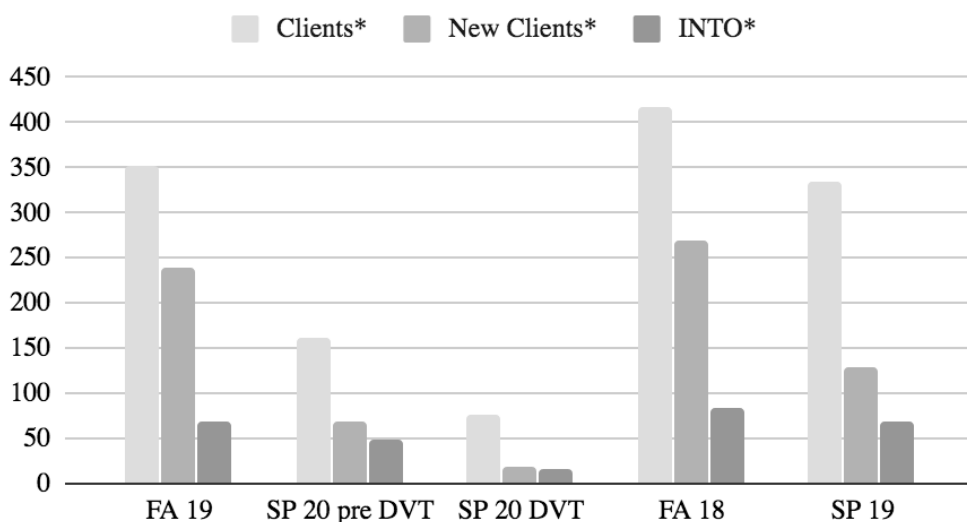
Client Overview:



This trend shows the normal and expected trend for some drop-off in use for the SP semesters, the impact of DVT, and a look back to AY 18-19: Select 6 yr span only: 2019 - 2024 self reported Grad Yr First Year (2023, 2024) > Sophomore (2022) > Junior (2021) > Senior + Other (2020, 2019)

Clients: Registered Account Holders with Active Appointments/CRFs

CAE Client Overview: Clients with Appointments



DVT Client Survey Feedback: Limited responses: 191

Client Feedback reveals strong satisfaction with the online tutoring sessions, but less satisfaction with using the WOnline platform. Sessions using the Zoom platform were not surveyed. Client preferences to online vs face-to-face tutoring show that further discussion is needed to assess future delivery of tutoring.

| Percent Responses | Excellent | Good | Average | Fair | Poor |
|---|-----------|------|---------|------|-------|
| Overall, I rate my CAE ONLINE tutoring session as: | 77 % | 19 % | 3% | | 0.5 % |
| Overall, I rate the CAE ONLINE tutoring system via MyWOnline as: | 65 % | 25 % | 8 % | 1 % | 0.5 % |

| Percent Responses | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|----------------|-------|---------|----------|-------------------|
| I will recommend the CAE ONLINE Tutoring to my friends. | 74 % | 18 % | 7 % | | 1 % |
| I prefer using CAE ONLINE Tutoring over face-to-face tutoring at the CAE | 38 % | 8 % | 30 % | 13 % | 11 % |

2) Policies Update: Following the University's decision to pivot to online, distance learning, the CAE is actively providing academic support using online tutoring sessions via WOnline and Zoom. All tutors working during DVT completed an Academic Integrity training for online support. Please see the [CAE's COVID-19 Resources Page](#) for support updates.

3) Needs/Looking Ahead:

CAE needs/looking ahead:

- Continue to nominate tutors using our [Tutor Nomination Form here](#)
- Potential tutors/students might ask for a reference. Complete the [Faculty Reference Form here](#)

- Beacon reminder: Add in Course information (e.g., PHIL 101, etc.) and any DVT related academic concerns and how the CAE can help

Faculty needs/looking ahead:

- Beacon responses/follow up on academic support needs/usage (i.e., tutoring, writing workshops, academic coaching, etc.)
- Other support (i.e., partnership, collaboration, faculty development regarding online academic support)

4) CAE Collaboration: The charts below illustrate the continued CAE collaboration with faculty and departments across the University.

CLA/CSGS Faculty Collaboration:

| | AY 19-20 | AY 18-19 |
|------------------------------|---|---|
| Faculty Collaboration | ENGH, DSEM (writing fellow CRLA & Academic Coaching training), BIOL, Academic English, ECON, SOC, Writing Studio, DSEM, EDUC, DMIN-Research I, Joy of Scholarly Writing, Music, Art-Digital Imaging Media & Communications | CHEM, CSCI, BIOL, Academic English, ECON, SOC, Writing Studio, DSEM, EDUC, Theater, DMIN-Research I, Joy of Scholarly Writing, Music, Art-Digital Imaging Media & Communications |

CLA/CSGS Partnerships for Programming, Training, etc

| | AY 19-20 | AY 18-19 (New SP19 inbold) |
|-------------|--|---|
| CLA | INTO Baldwin Honors Program DSEM (CRLA training for Writing Fellows) EOS ResLife (RA Training) Student Employment: Workshops; Work Study Initiative Career Services (SEED) | INTO Baldwin Honors Program BA/MAT DSEM EOS ResLife/Student Act: In-Hall Tutoring The Path; Drew Zoo Student Employment: Workshops; Work Study Initiative Career Services (SEED) Athletics: FY Workshops Public Safety: Active Shooter Training Counseling Services |
| CSGS | Theo, Divinity Medical Humanities Admissions MAT Program Arts and Letters | Theo Medical Humanities Admissions MAT Program Arts and Letters Medical Humanities |

Academic Integrity Committee: AY 2019-20 Report

| Fall 2019 | | | | |
|-----------------|----------------|---------------------------|-----------------------------|-------------------------|
| Number of Cases | Class Standing | Alternative Resolutions | Academic Integrity Hearings | Academic Honesty course |
| 33 | 11- First Year | 25 cases | 8 Cases | 23 |
| | 3- FY Pathway | 11 Cheating (homework) | 5 Cheating (Exams) | |
| | 8- Second Year | 10 Plagiarism | 3 Plagiarism | |
| | 10- Third Year | 4 excessive collaboration | | |
| | 1 -Senior | | | |

| Spring 2020 | | | | |
|-----------------|----------------|-------------------------|-----------------------------|---|
| Number of Cases | Class Standing | Alternative Resolutions | Academic Integrity Hearings | Required Online Academic Honesty course |
| 20* | 6- First Year | 15 | 5 | 10 |
| | 1- Second Year | 10 Plagiarism | 4 Plagiarism | |
| | 6- Third Year | 5 Cheating (Exam) | 1 Cheating (Exam) | |
| | 7 -Senior | | | |

*Reported violations as of 5/1/20

Fall 2018

15 Cases

13 Alternative Resolutions; 2 Academic Integrity Hearings

4 First Year

6 Second Year

4 Junior

1 Senior

Spring 2019

30 cases

17 Alternative Resolutions; 13 Academic Integrity Hearings

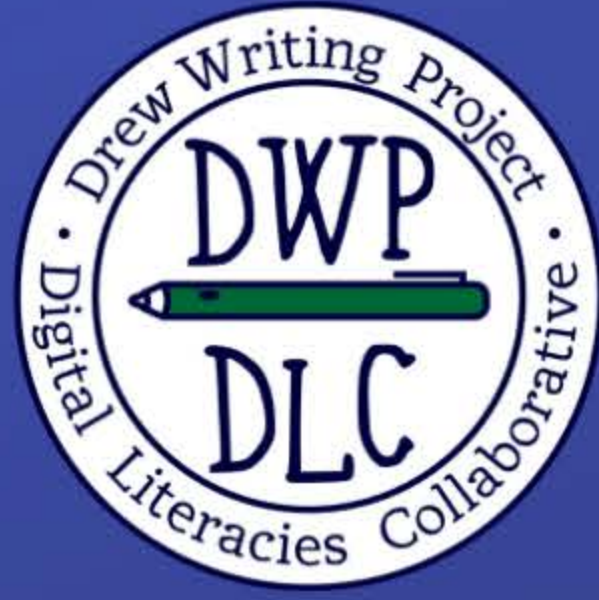
3- First Year

7 Second Year

3 Second Year Pathway

11 Junior

6 Senior



YOUTH WRITING PROGRAM

COLLEGE ESSAY WRITING

August 10-13, 2020

9:30 - 2:00

\$330

JUMP START YOUR COLLEGE ESSAY
WRITING THIS SUMMER AT DREW
UNIVERSITY WITH TEACHERS FROM THE
NATIONAL WRITING PROJECT.

Visit <http://drewteach.org/youthprograms>
for more information

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

**Curricular Report
May 2020-Addendum**

For Information:

Changes to Existing Courses:

- **SEP 102/How Science Works: An Introduction to Scientific Inquiry**
 - **Credit change from 4 to 0 or 4**
- **DATA 502/Data Visualization and Communication and DATA 601/Statistical Machine Learning**
 - **Title and Description Changes**
- **DATA 503/Applied Regression Analysis, DATA 551/Modeling and Simulation, and 552/Data Analytics Using SQL and Relational Databases**
 - **Description Changes**

Changes to Existing Courses:

SEP 102/How Science Works: An Introduction to Scientific Inquiry

- ◆ **Credit change from 4 to 0-4**

Current:

SEP 102/How Science Works: An Introduction to Scientific Inquiry
4 credits

Proposed:

SEP 102/How Science Works: An Introduction to Scientific Inquiry
0-4 credits

DATA 502/Data Visualization and Communication

- ◆ **Title and Description Change**

Current:

DATA 502/Data Visualization and Communication

A survey of techniques and tools for effectively visualizing and communicating small and large data sets in informative ways for a variety of audiences. Applications include ggplot, Tableau, Excel, and interactive visualizations using R shiny.

Proposed:

DATA 502/Data Visualization

This course introduces principles and techniques of data visualization to improve the understanding of complex data and models. This is a hands-on course. Students will use several tools to refine their data and create visualizations.

DATA 503/Applied Regression Analysis

- ◆ **Description Change**

Current:

DATA 503/Applied Regression Analysis

This course covers methods of regression analysis including simple, multiple, and logistic regression, explanation, prediction, diagnostics, model selection, and models with categorical predictors.

Proposed:

DATA 503/Applied Regression Analysis

This course is designed to provide students with a deep understanding of the theory and practice of regression, one of the most commonly used techniques in the data scientist's toolkit. It covers methods of regression analysis including simple, multiple, and logistic regression, explanation, prediction, diagnostics, model selection, and models with categorical predictors. Computation in this course will be based on software package R, which is used extensively in labs and assignments in this class and subsequently reappears in other classes throughout the program.

DATA 551/Modeling and Simulation

◆ **Description Change**

Current:

DATA 551/Modeling and Simulation

This course covers methods for modeling and simulating systems using a variety of techniques, including statistical models, Monte Carlo simulations, agent-based models, and machine learning. Students will also be introduced to the basics of Bayesian analysis and Markov Chain Monte Carlo (MCMC) techniques.

Proposed:

DATA 551/Modeling and Simulation

The course covers techniques for modeling and simulating random systems that are otherwise complicated to study. Topics include sampling from probability distributions, approximate sampling, Monte Carlo and MCMC methods, bootstrap, and simulation based inference.

552/Data Analytics Using SQL and Relational Databases

◆ **Description Change**

Current:

552/Data Analytics Using SQL and Relational Databases

This course will cover the use of SQL databases and the SQL language to manage and query big data. Students will also learn to use Unix and other tools to prepare data.

Proposed:

552/Data Analytics Using SQL and Relational Databases

Databases makes it possible to store and retrieve information efficiently and securely across multiple users and platforms. Expertise in database design and SQL are crucial skills. This course is designed to help students develop these skills. The preparation of data (collecting, loading, organizing etc.) can take more than 80% of the time allocated for analytics projects. This course will demonstrate how relational database design coupled with efficient programming can reduce the burden of handling messy data.

DATA 601/Statistical Machine Learning

◆ **Title and Description Change**

Current:

DATA 601/Statistical Machine Learning

This course provides students with an introduction to statistical machine learning techniques for analyzing data using the statistical programming language R. Emphasis will be on supervised learning

methods such as regression, k-nearest neighbors, discriminant analysis, naive Bayes, decision trees, network analysis, as well as model assessment tools such as cross-validation.

Proposed:

DATA 601/Machine Learning

This course is designed to provide students with a deep, practical understanding of several of the most common and powerful analytical machine learning techniques in use by today's data scientists such as resampling methods, non-linear methods, Tree-Based Methods, Support Vector Machines, and, from the Unsupervised Learning family of techniques, Cluster Analysis and Association Analysis.

University Faculty Handbook --

Committees descriptions still needing faculty approval (for vote on May 7).

NOTE: COF worked with DC to align the language for COF description with the COF Handbook;
The EOS Faculty Advisory Committee wrote the description for that committee

3.3. The Arts and Sciences Committees

3.3.i. Committees with Elected Membership

Committee on Faculty (elected)

Function: The Arts and Sciences Committee on Faculty shall consider all matters having to do with faculty promotion, tenure, retention, and academic freedom within Arts and Sciences. On or before the date required by the *Faculty Personnel Policy*, the Committee shall consider each member of the faculty eligible for promotion, tenure, reappointment or termination, and report its recommendation to the Dean of Arts and Sciences. Note that what is in the COF Handbook supercedes this description when the two are in conflict.

Membership:

The Committee on Faculty shall consist of:

- Four faculty members, one from each of divisions I and II, and two from division III, elected for a two-year term. Dean's Council will ensure that the two elections for Division III's members are from different departments and programs and represent the disciplinary breadth of the division. Whenever possible, elections shall be held in such a way that two faculty members will be in the second year of service and two in the first. Only full professors and those associate professors with tenure who have begun their third year and served either as department chair or on a major committee are eligible for election; no more than two associate faculty may serve on the committee simultaneously. No current member shall be considered for promotion by the committee.
- The chair, a faculty member elected as a member at large for a two year term. Normally, the Committee will present a minimum of two nominations drawn from among those faculty who have served on the Committee for two years within the past five years.
- The Dean of Arts and Sciences (*ex officio*), a non-voting member of the Committee who participates in the Committee's deliberations.

Frances B. Sellers/Educational Opportunities Scholars Faculty Advisory Committee (appointed)

Function: The Educational Opportunity Scholars Program (EOS) Faculty Advisory Committee advises the Director of the Program on all matters related to the academic curriculum and educational support services designed and developed for students admitted to the university through the Frances Sellers Program.

Specifically, EOS Faculty Advisory Committee responsibilities include:

- Advisement and support concerning curriculum and planning of the EOS Summer Program.
- Working collaboratively with the EOS Director and the Center for Academic Excellence (CAE) to support the mission and objectives of the program
- Advisement and updating the EOS Director concerning changes in academic policies potentially impacting the program
- Guidance concerning all necessary approvals, as needed, before implementation of the discussed curriculum.

Membership:

The EOS Faculty Advisory Committee consists of:

- A representative from each of the three Arts and Sciences Faculty DivisionsForums, appointed by the Dean in consultation with the Dean's Council and approval of the EOS Director;
- The Director of the EOS Program;
- Associate Provost for Academic Services