Arts & Sciences Faculty Meeting
May 13, 2021

AGENDA

CALL TO ORDER: **3:15 p.m.**	Ryan Hinrichs
APPROVAL OF MINUTES	Maria Masucci ---------- pp. 4
DEAN'S UPDATES	Ryan Hinrichs

Retiring Faculty Encomiums
Michael Peglau, Art

ACTION ITEMS:

Conferral of Degrees	Stephanie Caldwell ---------- pp. 8
Transfer Credit Policy	Hannah Wells ---------- pp. 9
Proposal for a new major in Statistics	Hannah Wells ---------- pp. 13
Revisions to the MS in Finance	Hannah Wells ---------- pp. 31
Proposal for Immersive Experiences amendment	Hannah Wells ---------- pp. 45
Revisions to the Certificate in Conflict Resolution	Hannah Wells ---------- pp. 46

REPORTS:

Curricular Report - For Information	Hannah Wells ---------- pp. 48
Enrollment Management Report	Colby McCarthy
INTO Report	Sharon Sundue ---------- pp. 51
Library Report	Andrew Bonamici ---------- pp. 56
Launch Report	Daniel Pascoe Aguilar ---------- pp. 57
Academic Standing Committee Report	Jason Karolak ---------- pp. 58
Center for Academic Excellence Report	Nora Boyer ---------- pp. 61
Academic Integrity Committee Report	Judy Redling ---------- pp. 66
Academic Effectiveness and Assessment Committee Report	pp. 69

OLD BUSINESS/NEW BUSINESS

ANNOUNCEMENTS

Drew Review	Jens Lloyd ---------- pp. 70
Digital Humanities Update	Wendy Kolmar ---------- pp. 71

ADJOURNMENT

Ammended Report

Enrollment Managegment Report	Frank Merckx ..... pp. 72

RECOGNITION OF DREW FACULTY ACHIEVEMENTS

College of Liberal Arts and Caspersen School of Graduate Studies
Faculty Meeting | Thursday, May 13, 2021

BRIANNE BARKER

Biology; Public Health

Brianne Barker for being interviewed and quoted in articles in National Geographic "Why we shouldn't panic about the millions who missed their second vaccine dose - yet" and in the Philadelphia Inquirer "Libraries still quarantine books, even as cases drop and vaccinations rise" Barker also participated in a panel discussion "SARS-CoV-2 vaccines educational statements" for the University of El Salvador Medical School.

RAPHAELE CHAPPE

Economics; Business

Raphaele Chappe for new paper "ESG 2.0: Measuring & Managing Investor Risks Beyond the Enterprise-level" (co-authored with Delilah Rothenberg and Amanda Feldman, based on research funded by the Omidyar Network and the Laudes Foundation), mentioned in the Financial Times and was in SSRN's Top Ten download list; "Deconsolidating Capital Flows Webinar" for For The Long Term (501(c)(3) public charity that supports public Treasurers); invitation to be a mentor to the Young Scholars Initiative (YSI) Virtual Plenary 2020 (Institute of New Economic Thinking); guest panelist for "Designing Work and Workers" at Parsons School of Design.

ALEX dE VOOGT

Business

Alex de Voogt together with Caio Hummel Hohl, and Hilary Kalagher published an article in Aerospace Medicine & Human Performance on "Fatality and Operational Specificity of Helicopter Accidents on the Ground".

ZIYUAN MENG

Computer Science

Coauthored article entitled: "Kant, Cybernetics, and Cybersecurity: Integration and Secure Computation", has been accepted to be included in the Special Issue on "Cybernetics and Philosophy" of the Journal of Systemics, Cybernetics and Informatics (JSCI). It is going to appear in June, 2021

Paper presentation entitled: "Enframing or Animating Second Nature: Reflections on Cybersecurity and Ontology" in New Materialist Informatics 2021 Conference, Kassel University, Germany on March 22nd

Cohosted and moderated the panel session on Philosophy and Cybernetics for International Institute Informatics and System (IIIS) 2021 Conference on March 9th

The forwarding of special issue on: Ethics and Information Security Education of online Information Security Education Journal (ISEJ) as the sole editor.

JOLIE TONG
Theatre Arts and Dance

Jolie Tong for being awarded an Art Fund Grant from the New York City Department of Cultural Affairs to develop a new play based on Shakespeare's Henry IV (parts 1 and 2) and Henry V.

COURTNEY ZOFFNESS
English; Creative Writing
Courtney Zoffness, whose recent book, SPILT MILK, received positive reviews in the Los Angeles Review of Books, Brevity, and the Pennsylvania Gazette, and was selected by The Nervous Breakdown as its May Book Club pick. Her video conversation with author Edward Schwarzschild is archived on the New York State Writers Institute website. Courtney also published two new pieces: an essay for the Jewish Book Council's website, recommending books for Mother's Day; and a work of short fiction, "Maternity," in the latest issue of The Arkansas International.

April 30, 2021 A&S Faculty Meeting Minutes

Via zoom https://drew.zoom.us/j/98132947506

IN ATTENDANCE

FACULTY
Sarah Abramowitz, Erik Anderson, Christopher Andrews, Chris Apelian, Lee Arnold, Di Bai, Alex Bajcz, Brianne Barker, Jim Bazewicz, Tanya Linn Bennett, Frances Bernstein, Sunita Bhargava, Jeremy Blatter, Lisa Brenner, Barry Burd, Monica Cantero-Exojo, Timothy Carter, James Carter, Adam Cassano, Chris Ceraso, Jill Cermele, Raphaele Chappe, Graham Cousens, Allan Dawson, Alex de Voogt, Patrick Dolan, Steven Dunaway, Wyatt Evans, Christopher Fazen, Steven Firestone, Kimani Fowlin, Jonathan Golden, Yuliya Grinberg, Seth Harris, Emily Hill, Ryan Hinrichs, Shakti Jaising, Sandra Jamieson, Lisa Jordan, John Jordan, Jason Jordan, Hilary Kalagher, Jason Karolak, Steven Kass, Rita Keane, Caitlin Killian, Roger Knowles, Wendy Kolmar, Amy Koritz, Minjoon Kouh, Margaret Kuntz, Juliette Lantz, John Lenz, Jens Lloyd, Jinee Lokaneeta, Yi Lu, Lisa Lynch, Yahya Madra, Maria Masucci, Christina McKittrick, Rosemary McLaughlin, Christopher Medvecky, Ziyuan Meng, Joanna Miller, Sangay Mishra, Joanne Montross, Scott Morgan, John Muccigrosso, Rory Mulligan, Phil Mundo, Adijat Mustapha, Nancy Noguera, Emanuele Occhipinti, Jennifer Olmsted, Karen Pechilis, Michael Peglau, Gerard Pinto, Muriel Placet-Kouassi, Susan Rakosi Rosenbloom, Jonathan Reader, Judy Redling, Kim Rhodes, Jonathan Rose, Paris Scarano, Claire Sherman, Ellie Small, Bernard Smith, Rebecca Soderholm, Raymond Stein, Sharon Sundue, James Supplee, Phoebe Tang, Jolie Tong, Kristen Turner, Maria Turrero, Nancy Vitalone-Raccaro, Hannah Wells, Trevor Weston, Tammy Windfelder, Courtney Zoffness

INVITED GUESTS
Margery Ashmun, Carol Bassie, Matthew Beland, Rachelle Belinga, Andrew Bonamici, Nora Boyer, Barb Bresnahan, Michelle Brisson, Stephanie Caldwell, Christopher Carbone, Jenna Corraro, Kristen Daly Williams, Chris Darrell, Guy Dobson, Christy Hartigan, Cordelza Haynes, Nadine Hylton, Dawn LoMauro, Colby McCarthy, Frank Merckx, Daniel Pascoe Aguilar, Yanira Ramirez, Danielle Reay, Kareena Salvi

CALL TO ORDER: 3:15 p.m.

No changes to 03.26.21 minutes were noted. Minutes were passed by consent agenda.

DEAN'S UPDATE
Dean Ryan Hinrichs welcomed faculty and invited guests.

Spring Semester:
Ryan started by acknowledging that the prior few weeks presented more challenges in the form of an elevated orange COVID alert level. He expressed gratitude for the faculty's adaptability, especially for those teaching in person.

He added that those students around the world are still very much struggling with COVID and asked that everyone be cognizant that students and faculty may continue to be impacted. He added that faculty please also support accommodations for those students who celebrate Ramadan, referring all to a recent email with details.

Ryan offered a number of reminders for faculty :

- Please submit the faculty-required forms for incompletes and be sure to review the policy itself.
- Remind students to consider P/LP/U policy where appropriate.
- Encourage students to fill out an Intent to Study Remote Form that can be found on the website, if that might be a consideration.

- The, if needed, May 13, 2021 faculty meeting will be held, along with the faculty forums scheduled. Invites have been sent to faculty calendars.
- Faculty development workshops are scheduled. (1) May 13, 2021 from 2:00 pm - 3:00 pm on "Understanding and Navigating Implicit Bias", then (2) May 20 at 1:30 pm - 3:30 pm - "Death by a Thousand Papercuts: Understanding the Impacts of Microaggressions in Learning Environments." He urged all faculty to attend and participate.

Commencement Update
Ryan shared that the CLA awards ceremony and CSGS graduates will be recognized on Drew's website this year again. He provided a broad overview of the schedule of events and added that faculty registration is critical for planning (https://forms.gle/yorHYuxP112HtF4J7).

Updated Processes related to Advising:
Major declaration - The major declaration link in TreeHouse for students has been redirected to send students to a new major declaration webpage to access the major/minor link and provide instructions on what to do if the major they want to declare is not available to them. This should negate the need for faculty to submit curriculum change requests moving forward. Faculty can direct students to the TreeHouse link and to read the instructions.

Pre-approval form - The pre-approval form has been revamped and no longer requires advisor approval. When a form is submitted, if it is a NJ transfer, the credit will be entered based on the existing equivalencies, if it is another university, credits will be entered based on existing equivalencies and if there are no equivalencies, the Registrar's Office will reach out to the subject area department to review and provide equivalencies that will be entered into the system for use moving forward. This form can be found on the newly revamped transfer credit page on the Registrar's Office website.

The recommendation was made to provide a PDF version of the form and include it on the Registrar's website so that advisors can be familiar with the form and help advise students.
In response to a question, it was noted that advisors will be emailed a copy of the pre-approval form as an fyi and reassured advisors that the major declaration workflow was not changed.

Fall Plans:
Ryan shared that fall registration is underway. He asked advisors to please submit a Beacon alert if a student has not met with them for advising using a new category "CLA - Not registered F21"

Ryan reported that registration seems to have gone well but noted that the online needs of INTO students will continue to be evaluated and addressed. He announced, however, that for the majority of CLA classes, the intent is to have classes fully in person, recognizing the difficulties of managing Flex classes especially in classrooms not specifically designed for that modality.

Looking forward, Ryan announced ongoing preparations for the new semester, including enhanced faculty orientation training that would be open to new hires as well as any faculty interested. He called for any input around these mini-development sessions that might focus on Beacon alerts, advising, COF or teaching demos.

Judy Redling is working on the Embedded Learning Fellows Program that offers;
- Additional student support within courses
- Build connections with students to lower barriers to asking for tutoring
- Includes in person classes

Judy will reach out to high-demand tutor courses but Ryan invited faculty to self-identify; within available resources and if interested complete this Google form: https://forms.gle/RGgouHDpREEDA3qu5

CLA Calendar

Discussions continue around the CLA calendar with consideration of no classes on Labor Day without adding another day at the end of the semester. Dean's Council has considered and this change is likely.

Ryan acknowledged that the issue of having reading days on weekends have been raised and that the discussion around reducing the days that have finals and removing reading days from the weekend continues. He welcomed faculty input and offered more of an update at a later meeting. The course schedule is set but the Dean's office will continue to work with the Registrar.

Ryan welcomed comments to which it was recommended to schedule multi-section finals at the same time (rather than by time block).

ACTION ITEMS:

Chemistry BA Revisions that reduces the major by 4 credits and adds some flexibility in fulfilling requirements.
Vote | Motion to approve revisions as outlined in the 04.30.21 meeting packet.
Yes - 76
No - 0
Abstain - 6

Public Health Revisions that removes (1) course from the core and allows for more freedom in electives.
Vote | Motion to approve revisions as outlined in the 04.30.21 meeting packet.
Yes - 72
No - 0
Abstain - 5

Retaking Courses/Forgiveness Policy Revisions that would allow Writing 120 to be used as forgiveness for DSEM and outlined that Drew 110 could not be made up, but be a U grade.

There was some discussion around the fact the Topics courses could not be taken for grade forgiveness and if department chairs might have some discretion to make substitutions to determine equivalency which led to the suggestion that CAPC review this policy further and the vote be postponed to the fall.

Academic standing advocated the change of the policy to ensure the equity of all students being aware of the policy.

Vote | Motion to approve with a friendly amendment removing language on Topics courses.
Yes - 66
No - 0
Abstain - 12

DISCUSSION ITEMS:

Revisions to Diversity Requirements
Ryan welcomed robust conversation to this important conversation by our colleagues and students. Hannah Wells acknowledged ongoing revisions warranted more conversation and referred everyone to the packet (pg. 30) to review the broader history and chronology of the revisions. She added that the shared sense of urgency with regard to the conversion of the diversity categories is a product of a number of problems that faculty had identified with the current diversity categories over the years, including the US / International distinction, as well as a response to student concerns about race and racism in our curriculum, and that the language of diversity is itself, dated and can fail to acknowledge the histories of inequality and underrepresentation that make diversity categories necessary in the first

place. With the desire to make the categories better and more expansive, Hannah walked the faculty through the issues raised throughout the revisions proposed, including transferable skills and SLOs.

Many of the faculty engaged in offering their feedback and recommendations on the following two prompts:

- US International distinction and its relation to Gen Ed
- Transferable skills and whether engaging differences is the right skill for these categories

REPORTS:
The following reports were presented and can be found in the amended faculty meeting packet:

Curricular Report - Hannah Wells welcomed faculty to be in touch with any questions on the report.

Committee on Faculty Report - Chair, Sarah Abramowitz thanked the committee for their commitment to the work and announced those recommendations to be made to the Board of Trustees in May.

Enrollment Management Report - Colby McCarthy highlighted the factors to be considered as May 1st decision day approaches and responded to questions around diversity and quality of candidates, both showing positive indicators thus far. The discount rate is currently running similar to years past, though it is early to speak to that number. In response to a question around the final count for CLA students, enrollment doesn't look to predict a number until after May 5 or later. A full report in May will be forthcoming. Colby thanked the faculty and students for their participation in admissions events, which have and continue to have a very positive impact on enrollment.

Caspersen enrollment numbers are up at this time.

Launch Report - Daniel Pascoe Aguilar spoke to how data on recent and alumni outcomes are collected. He asked faculty to help engage with Handshake as a means to do so. Daniel thanked everyone for all who contributed to Drew 110 presentations, especially Carol Bassie and the partnership with Advancement. In response to a question about how faculty might share information they might have on outcomes, Daniel will soon share a spreadsheet on 2020 outcomes - not known yet, now that we are one year out.

A motion was approved to extend the meeting an additional 15 minutes..

Library Report - Andrew Bonamici welcomed all to read the report and asked to please be in touch with any support needed for the remainder of the semester.

OLD BUSINESS/NEW BUSINESS
No old/new business was discussed.

ANNOUNCEMENTS
The following announcements were made.

Center for Academic Excellence- Student Support Survey
Art Department Senior Exhibition 2021
Global Education Faculty Advisory Committee (GEFAC)
2021 Civic Engagement Award Winners
Save the Date | Virtual retirement gathering for Michael Peglau on May 14 at 4pm.

The meeting was adjourned.
Minutes respectfully submitted by Christy Hartigan

Drew University
Arts & Sciences Faculty

RESOLUTION FOR APPROVAL OF THE CONFERRAL OF DEGREES

May 13, 2021

WHEREAS, the Arts and Sciences faculty approves the conferral of degrees for the semesters of Fall 2020, Spring 2021, and Summer 2021 at their meeting on May 13, 2021;

BE IT HEREBY RESOLVED, that the Doctor of Philosophy, Doctor of Letters, Doctor of Medical Humanities, Master of Arts, Master of Arts in Teaching, Master of Education, Master of Fine Arts, Master of Letters, Master of Science, Bachelor of Arts, and Bachelor of Science degrees respectively, be conferred on January 29, 2021, May 15, 2021 and August 20, 2021 and on those candidates in each course of study who have satisfied the stated academic requirements, been recommended by their respective faculties, and who have met their financial obligations to the University.

Curricular Report
May 2021

For Action:

- **Transfer Credit Policy**
- **Statistics Major**
- **Finance Degree-Concentrations**
- **Immersive Experience Amendment**
- **Revision to Certificate for Conflict Resolution**

For Information:

New Courses:

- **BST 206/Trade and the role of Swahili in East Africa**
- **DEPT 296/Intermediate Research**
- **INTC 201/On-campus Internship Experience**
- **STAT 230/Sports Statistics**
- **STAT 260/Text Mining**
- **STAT 335/Applied Regression Analysis**
- **STAT 370/Bayesian Statistics**

Change to Existing Courses:

- **INTC 200/Internship Experience**
  - **Description Change**
- **THEA 401/NY Semester on Theatre**
  - **Grade mode change from Pass/Fail to Letter grade**

Gen Ed Designations:

- **BST 206/Trade and the role of Swahili in East Africa [BINT, BSS, DVIT]**

For Action:

Transfer Credit Policy

Courses transferred to Drew's College of Liberal Arts from other institutions:

Whether taken by a matriculated Drew student at another college or by a new student transferring to the College of Liberal Arts, credits will be transferred if the following criteria are met:

- The course must be listed on an official transcript from an institution that has been accredited by a body duly recognized by the U.S. Department of Education (USDOE) and the Council for Higher Education Accreditation (CHEA) or be officially recognized by the appropriate government agency/ministry of education for foreign institutions.

- Transcripts from institutions outside of the U.S. must be evaluated by World Education Services.
- The course must be a course that would or could be offered at a liberal arts college.
- A grade of C- or better must have been earned in the course. Pass/fail courses are not eligible for transfer.
- The course must have been taken within the past 10 years. Courses that were taken more than 10 years prior to the request for transfer credit will require departmental approval for transfer.
- Transfer credits are not calculated in the GPA, credits earned in Drew's exchange program with the College of St. Elizabeth or Fairleigh Dickinson University are not counted as transfer credit and so are calculated in the Drew GPA.
- Students may transfer up to 80 credits toward Drew's bachelor's degree and must earn a minimum of 48 credits from Drew.

Transfer of credit from a U.S. military transcript

Veterans enrolling with a military transcript of college-level work will be granted credit at the discretion of the department according to the criteria enumerated by the American Council on Education for credit/course-type equivalencies (http://www.acenet.edu/news-room/Pages/Transcripts-for-Military-Personnel.aspx). A maximum of 16 ROTC credits may be transferred as elective credit toward bachelor's degree.

Applicability of Transfer Credit to Majors and Minors

A student transferring credits toward a major or minor from another institution must complete at least 16 Drew credits at the intermediate- or upper-level to earn a major in that area. They must complete at least 8 intermediate- or upper-level Drew credits in order to earn a minor in that area. If Drew transfers 2.5 credits or more for courses that satisfy required or elective courses for a major or minor, that student may complete the major or minor with up to 3 fewer total credits.

Applicability of Transfer Credit to General Education Requirements

· Transferred courses are eligible to fill general education requirements in cases where they meet the learning objectives of a specific Drew requirement.

· The Drew Seminar (DSEM) is waived if a student transfers in two semesters of college writing from a community college or one semester from a four year college or university.

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

· If Drew transfers 2.5 credits or more for courses at the intermediate or upper level, that student may complete the 64 credit intermediate or upper-level requirement with up to 3 fewer intermediate or upper-level credits.

· If Drew transfers 2.5 credits or more for courses at the upper-level, that student may complete the 32 credit upper-level requirement with up to 3 fewer upper level credits.

Pre-Approved Credit Earned Elsewhere

· Enrolled Drew University bachelor's students must receive permission PRIOR to taking courses at another institution in order for the credits to transfer to Drew.

· Students planning to study away in the U.S. for a Fall or Spring semester or an entire academic year must also file a Pre-Approval for Credit Study Elsewhere form available online.

o Students must obtain the approval of their academic adviser and the appropriate department chair if they would like a course transferred for major or minor credit. After obtaining all necessary signatures, a student must submit the form to the registrar for final approval.

· Only approved courses with a grade of "C-" or above will be accepted for transfer. Courses accepted for transfer will count as credit toward the Drew University degree and the grades will be recorded on the Drew transcript, but these grades will not be calculated in the grade-point average.

· Official transcripts reflecting the final grade must be sent to Drew University Office of the Registrar within 4 weeks of course completion.

Transfer Policy for Students with an Associate of Arts or Associates of Science Degree

If a transfer student has completed the Associate Degree, they will be granted junior status (64 credits, including a minimum of 8 intermediate- and 4 upper-level credits) upon transfer to Drew.

If a student has completed the Associate Degree, they must complete the following general education requirements:

· 64 credits of which at least 48 must be earned at Drew University.

o If a student has completed more than 64 transferable credits up to 80 transfer credits could be awarded

· 52 intermediate and upper level credits, of which at least 28 must be at the upper level. (If a student has completed more than 12 transferable intermediate and upper level credits, each additional credit

may apply toward this requirement. If a student has completed more than 4 transferable upper level credits, each additional credit may apply toward this requirement.)

· A major area of study;

· The equivalent of one four credit course in the following course categories:

o Writing Intensive course (unless student has taken two equivalent courses in their Associate Degree);

o Quantitative course (unless student has taken two equivalent courses in their Associate Degree);

o Diversity course (unless student has taken two equivalent courses in their Associate Degree).

· Students are required to complete three semesters of foreign language between their Associate and Drew degrees. If they have not completed three semesters of language upon transfer to Drew, a placement test will determine the appropriate course level for completion of the remaining semester(s) at Drew.Students may also complete the language requirement for their Drew degree in one of the following ways:

o if their application to Drew requires them to submit a TOEFL score;

o by providing documentation to the Office of Academic Services that they attended school taught in a language other than English up through at least the 6th grade;

o by demonstrating proficiency equal to Drew's language requirement on a Drew placement test;

o by demonstrating proficiency equal to Drew's language requirement on a placement test administered through the Office of Academic Services in a language not offered at Drew;

o by scoring 680 or higher on an appropriate SAT II exam;

o by scoring a 4 or 5 on an appropriate Advanced Placement (AP) exam;

o by scoring a 5 or higher in an appropriate IB language course (SL or HL).

NOTE 1: Immersive experiences are an integral part of Drew's General Education program and are core to the mission of the institution. These experiences provide students with the opportunity to practice what they have learned outside a traditional classroom setting. Transfer students are highly encouraged to talk with their advisers about how to integrate such an experience(s) into their Drew program of study. These might include internships, community-engaged projects and community-based learning courses, study abroad or domestic programs, undergraduate research or creative projects, and peer mentoring or student leadership positions.

NOTE 2: While not required, students transferring in to Drew with an Associate Degree are encouraged to take DREW 110 Launch Workshop: Preparation for Career and Academic Success. This one-credit course is offered for all transfer students in fall semesters, and with limited spots in spring semesters. This course helps provide students with an introduction to Launch strategies and

resources, including initial career design steps, career and identity communities, mentoring opportunities, and job postings.

NOTE 3: Students who completed a combined High School and Associate Degree program and who applied as a first-time student will be evaluated based on the Advanced Standing policy described below for "College Credits Earned Prior to Graduation from High School."

On-line course credit transfer

- ~~Drew will accept in transfer no more than four on-line courses totaling no more than sixteen credit hours for courses that meet all requirements.~~
- ~~A form for approval of eligible courses may be found on the Registrar's website.~~

For online courses that include labs or studio practice, students will receive transfer credits but may need to complete in-person components to receive course equivalency for progression through a sequence in a major.

Transfer Credit Policy Exception for COVID-19

Pass/fail courses taken during spring and summer 2020 with a grade of P, or the equivalent, will be accepted for transfer credits and can be used to satisfy general education and major requirements.

Statistics Major

Proposal for a New Major

Proposals for new majors must be submitted for CAPC review 4 weeks before the CLA faculty meeting at which the department hopes to have the major or 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 new major being proposed.

All new major 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 creating this new major? How will it contribute to the undergraduate 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?

The field of statistics deals with different phases of handling data, aiming to gain information using quantitative and computational techniques. Statistical methods and ways of thinking are relevant to many different disciplines, from physical sciences to the humanities. Today's world is becoming more and more data-driven, and the ability to think critically about data is an essential element of a liberal arts education. Majoring in Statistics provides appropriate background for professional work that centers around data, in areas such as finance, insurance, government, pharmaceuticals, polling, and marketing. The curriculum also prepares students for graduate study in Statistics, Biostatistics, and other related disciplines such as Analytics, Data Science, and Operations Research.

Drew's major in Statistics has a strong computational, applied, and interdisciplinary focus. Students will learn the mathematical foundations as well as applied statistical techniques. In elective courses, students can use statistics in a discipline of interest and study modern topics in computational statistics and machine learning.

There are many recent articles about the value of statistical training.

For example, this one talks about the high salaries for people with statistical training: **https://www.usnews.com/education/best-graduate-schools/articles/what-statistics-is-and-how-to-become-a-statistician**

This one talks about the many jobs available for people with statistical training: **https://www.bls.gov/ooh/math/mathematicians-and-statisticians.htm** "Overall employment of mathematicians and statisticians is projected to grow 33 percent from 2019 to 2029, much faster than the average for all occupations. Businesses will need these workers to analyze the increasing volume of digital and electronic data."

"Mathematicians and statisticians typically need at least a master's degree in mathematics or statistics. However, some positions are available to those with a bachelor's degree."

Our statistics and data science minors are quite popular, with 23 current data science minors and 18 statistics minors, leading us to be optimistic about student interest.

When we benchmarked our major to that of other schools, we discovered that very few of our peer or aspiration schools offer a statistics major. We are able to do it because of the Gilbert gift, which allowed us to hire two additional statisticians. This major will help differentiate Drew from other liberal arts institutions and will help us optimize the impact of the Gilbert gift.

We have conducted benchmarking for the Statistics Major and the Statistics and Data Science Minor. A tabulation of our benchmarking is available here:
https://docs.google.com/spreadsheets/d/1TAs0be8Mh8-L1TYpWBH1sxvpl4qzbWYDNrNbnucYC_A/edit?usp=sharing

II. Learning Objectives for the Major

SLOs for the Statistics Major
By the end of this course of study, students will be able to

1. Identify and apply appropriate statistical techniques to real world problems.
2. Collect and prepare data for analysis.
3. Effectively use professional level technology statistical tools.
4. Communicate statistical analyses and conclusions through writing, speaking, and data visualization.
5. Use mathematical tools, including calculus and linear algebra, to study probability and mathematical statistics and in the description and development of statistical procedures.

Curriculum Map

E = Emerging, D = Developing, M = Mastering

Required Course	Identify and apply appropriate statistical techniques to real world problems	Collect and prepare data for analysis	Effectively use professional level technology statistical tools of statistics	Communicate statistical analyses and conclusions through writing, speaking, and data visualization	Use mathematical tools, including calculus and linear algebra, to study probability and mathematical statistics and in the description and development of statistical procedures
MATH 200 Calculus Survey/MATH 250					E
STAT 120 Programming in R	E	E	E		
STAT 207 Introduction to	E	E	E	E	

Statistics					
MATH 220 Discrete Mathematics					E
MATH 320 Probability	D		D		D
STAT335 Applied Regression Analysis	D	D	D	D	D
STAT 350 Statistical Theory	M				M
STAT 400 Statistical Machine Learning	M	M	M	M	M

III. Curriculum/Major Requirements

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

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

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

Outline of requirements with rationale:

We have designed a flexible major with adequate rigor that students who intend to go to graduate school in statistics will be prepared and students who intend to get a solid foundation in statistics as it applies to other disciplines will also be able to do that.

Recommended first courses: MATH 200 (Or MATH 150 for those considering graduate work in statistics or data science) or STAT 120. We recommend that first-time first-year students wait at least a semester before taking STAT 207 (the renumbered MATH 117).

In this overview, we do not indicate, but it is true, that students must earn a C- or better in all prerequisite courses. This is reflected in the catalog description for the individual courses.

Informal Listing of Requirements for the Major (48 credits) with prerequisites

I. Required Courses (8 courses, 32 credits)

Calculus: MATH 200 – Topics in Single and Multivariable Calculus **OR** MATH 250 – Calculus and Analytical Geometry III (Note that students who want to apply statistics to other disciplines are advised to take MATH 200 while those who wish to pursue postgraduate work in statistics or data science are advised to take MATH 150, MATH 151, and MATH 250)

Programming: STAT 120

STAT 207 – Introduction to Statistics (New label and number for the old MATH 117)

MATH 220 – Discrete Mathematics

MATH 320 – Probability. Prerequisites (Math 200 or MATH 250) AND Math 220

STAT 335 – Applied Regression Analysis (new course needs to be proposed). Prerequisites STAT 207 and STAT 120

STAT 350 – Statistical Theory. Prerequisite MATH 320.

STAT 400 – Statistical Machine Learning. Prerequisite STAT 335. Counts as capstone and writing in the major.

II. Elective Courses (4 courses, 16 credits)

Choose 4 from the following

DATA 251 – Data Visualization and Communication Prereq STAT 120 OR CSCI 150

DATA 252 – Modeling and Simulation Prereq STAT 120 OR CSCI 150

DATA 253 – Applied Data Analysis Prereq STAT 207 AND (STAT 120 OR CSCI 150)

STAT 220 – Special Topics in Statistics=(may be repeated for credit when topics are different)

STAT 227 – Intermediate Statistics. STAT 207 prereq

STAT 230 – Sports Statistics. STAT 207 prereq

STAT 260 – Text mining. STAT 120 prereq

STAT 370 – Bayesian Statistics. Math 320 prereq

CSCI 330 – Databases & Information Management

MATH 303 – Linear Algebra

At most one applied course that uses statistics with a STAT 207 prerequisite such as ECON 303 – Economic Methodology and Introductory Econometrics OR PSYC 211 – Research Methods in Psychology OR PH 340 – Epidemiology OR PH 341 – Research Methods in Population Health OR SOC 210 – Sociological Research Methods OR NEUR 210 – Neuroscience Research Methods.

Complete Catalog Copy

We yield to CAPC on best practices for the electives. One option is listed below. It might be clearer if we divide the choices into "Group A: MATH/STAT/DATA/CSCI" and "Group B: Data Science in Context" and say "Choose 4 courses, including at least three from Group A."

Requirements for the Statistics Major (BS) (48 credits)

I. Required Courses (8 courses, 32 credits)

- Calculus: MATH 200 – Topics in Single and Multivariable Calculus **OR** MATH 250 – Calculus and Analytical Geometry III
- STAT 120 Statistical Computing in R
- STAT 207 – Introduction to Statistics
- MATH 220 – Discrete Mathematics
- MATH 320 – Probability
- STAT 335 – Applied Regression Analysis
- STAT 350 – Statistical Theory
- STAT 400 – Statistical Machine Learning

II. Four intermediate or upper-level Elective Courses (4 courses, 16 credits)

Choose 4 from the following

- DATA 251 – Data Visualization
- DATA 252 – Modeling and Simulation
- DATA 253 – Applied Data Analysis
- STAT 220 – Special Topics in Statistics
- STAT 227 – Intermediate Statistics
- STAT 230 – Sports Statistics.
- STAT 260 – Text mining.
- STAT 370 – Bayesian Statistics.
- CSCI 330 – Databases and Information Management
- MATH 303 – Linear Algebra

- At most one applied course from another discipline that uses statistics with a STAT 207 prerequisite such as ECON 303 – Economic Methodology and Introductory Econometrics OR PSYC 211 – Research Methods in Psychology OR PH 340 – Epidemiology OR PH 341 – Research Methods in Population Health OR SOC 210 – Sociological Research Methods OR NEUR 210 – Neuroscience Research Methods.

Table with schedule of course offerings:

MACS Teaching schedule for courses in the Statistics Major. If there is someone who usually teaches the class, it is indicated in parentheses.

Fall Annually	**Spring Annually**
DATA 251 Data Visualization MATH 200 (New calc course) MATH 220 Discrete Mathematics MATH 250 Multivariable Calculus MATH 320 Probability (Apelian) STAT 120 Programming in R STAT 207 (x5) STAT 227 Intermediate Statistics (Abramowitz) STAT 335 Applied Regression Analysis (Small) Stacked with DATA 503	DATA 251 Data Visualization MATH 220 Discrete Mathematics MATH 250 Multivariable Calculus MATH 303 Linear Algebra STAT 207 (x5) STAT 227 Intermediate Statistics (Abramowitz) STAT 350 Statistical Theory (Lu) STAT 400 Statistical Machine Learning (capstone and writing in major)
Courses offered fall every other year	**Courses offered spring every other year**
CSCI 330 Databases and Information Management DATA 253 Applied Data Analysis	DATA 252 Modeling and Simulation STAT 260 Text Mining

STAT 370 Bayesian Statistics (Lu)	STAT 230 Sports Statistics

We will offer STAT 220, our topics course on an irregular basis according to student interest.

Costs – We will need to hire adjunct professors to teach two introductory level classes because we have increased the frequency of some of our offerings and we will need to divert our full time faculty resources to those.

MATH 320 Probability will be offered annually in the fall. It used to be offered every other year

STAT 350 Statistical Theory will be offered annually in the spring. It used to be offered every other year.

STAT 335 is a new course but it is being stacked with DATA 503 and will not require additional instructional resources.

We have regularized some of the courses that we have previously offered as topics. That will not require additional staffing resources.

So the total of new offerings will be 2 courses per year for this major. We plan to do that through adjuncts, so it will not require an additional line.

IV. Impact on and Connections with Other Departments/Programs

Does the proposed major 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?

We have discussed this proposal with the chairs/directors of economics, neuroscience, psychology, public health and sociology, who are all excited and supportive. The major has the potential to be highly interdisciplinary and we anticipate that we will have several students who will double major in statistics and one of these related disciplines. However, there are ample elective options in our proposed major, so students can major in statistics without taking any courses in other departments, so it does not necessarily depend on other courses. We believe that the proposed major will have no more of an impact on other departments than the minors in statistics and data science do, and that impact has been manageable.

The Psychology Department is enthusiastic about the proposed Statistics Major and the opportunity it poses for Psychology majors and minors. The Psychology Department is meeting 3/18 to discuss what

the staffing implications for the inclusion of PSYC 211 in the Statistics major might be and how best to address those issues.

V. Minor

Is there an existing minor in this area that is being revised or eliminated as a result of the creation of the major? If a minor will continue to exist or be created, detail the minor requirements and provide complete catalog copy for the new/revised minor.

First we give a comparison of the old and new minors in statistics and data science, so that you can see the extent of the changes. Then, we provide complete catalog copy.

We will continue to offer minors in both statistics and data science. We will be slightly modifying these minors as described below. The summary of these changes is that we are eliminating STAT 380 and DATA 390 as requirements, as they have never been offered. We have also revised the prerequisite structure and added courses that have been created since the minors were initially proposed.

There are two tracks to the statistics minor. One is theoretical and may appeal to mathematics or physics majors, and one is applied for students whose primary interest is in another discipline. That is why students have the option of taking STAT 227 or STAT 350, depending on emphasis.

Component of Statistics Minor	**Old Version**	**New Revised Version**
Core (16 credits)	MATH 117 - Introductory Statistics MATH 227 - Intermediate Statistics OR ECON 303 - Economic Methodology And Introductory Econometrics STAT 380 - Statistics in Context (Or a course with a MATH 117 prerequisite that uses statistics in the context of another discipline such as PSYC 211 , SOC 210 , NEUR 210 , or PH 340)	STAT 120 - Statistical Computing in R STAT 207 - Introduction to Statistics STAT 227 - Intermediate Statistics OR STAT 350 - Statistical Theory

		STAT 335 - Applied Regression Analysis
Intermediate and Upper-Level (8 credits)	STAT 120 - Statistical Computing in R STAT 220 - Special Topics in Statistics STAT 240 - Statistical Machine Learning STAT 350 - Statistical Theory	STAT 220 - Special Topics in Statistics STAT 227 - Intermediate Statistics STAT 260 Text Mining STAT 230 Sports Statistics STAT 350 - Statistical Theory STAT 370 Bayesian Stats STAT 400 - Statistical Machine Learning DATA 251 Data Visualization DATA 252 Modeling and Simulation DATA 253 Applied Data Analysis

Component of Data Science Minor	**Old Version**	**New Revised Version**
Called	a. One introductory	

"Preparatory" in original with 8 credits but deleted in new version	course in computer programming selected from the following list: CSCI 149 - Introduction to Computer Science in JavaScript CSCI 150 - Introduction to Computer Science in Python STAT 120 - Statistical Computing in R b. Introductory Statistics MATH 117 - Introductory Statistics	
Called "core courses" in original with 8 credits but updated to Required Courses (20 credits) in the revision.	DATA 200 - Data Science: Introduction, History, and Case Studies DATA 251 - Data Visualization DATA 252 - Modeling and Simulation DATA 253 - Data Analysis	One of the following introductory programming courses CSCI 149 - Introduction to Computer Science in JavaScript OR CSCI 150 - Introduction to Computer Science in Python OR STAT 120 - Statistical Computing in R STAT 207 DATA 200 - Data Science: Introduction, History, and Case Studies AND two of the following:

		DATA 251 - Data Visualization DATA 252 - Modeling and Simulation DATA 253 - Applied Data Analysis
Elective Courses (8 credits originally but 4 credits in the revision)	At least 4 credits separate from DATA 251-253 DATA 251 - Data Visualization DATA 252 - Modeling and Simulation DATA 253 - Data Analysis DATA 299 - Data Science Across the Curriculum HIST 215 - History by the Numbers ESS 302 - Geographic Information Systems **OR** BIOL 302 - Geographic Information Systems CSCI 330 - Databases & Information Management	DATA 251 - Data Visualization DATA 252 - Modeling and Simulation DATA 253 - Applied Data Analysis HIST 215 - History by the Numbers ESS 302 - Geographic Information Systems BIOL 302 - Geographic Information Systems CSCI 330 - Databases & Information Management NEUR 366 - Computational Modeling of Neural Systems PHYS 366 - Computational Modeling of Neural Systems STAT 230 Sports Statistics STAT 260 Text Mining Relevant internship, honors theses, independent study, or other courses may be used as

	NEUR 366 - Computational Modeling of Neural Systems **OR** PHYS 366 - Computational Modeling of Neural Systems	an elective by permission of the Chair of Mathematics and Computer Science.

Complete Catalog Copy

Statistics Minor

Requirements for the Minor (24 credits)

I. Required Courses (20 credits)

- One of the following introductory programming courses CSCI 149 - Introduction to Computer Science in JavaScript OR CSCI 150 - Introduction to Computer Science in Python OR STAT 120 - Statistical Computing in R
- STAT 207 - Introduction to Statistics
- DATA 200 - Data Science: In

AND two of the following:

- DATA 251 - Data Visualization
- DATA 252 - Modeling and Simulation
- DATA 253 - Applied Data Analysis

II. Elective Courses (4 credits)

- DATA 251 - Data Visualization
- DATA 252 - Modeling and Simulation
- DATA 253 - Applied Data Analysis
- HIST 215 - History by the Numbers
- ESS 302 - Geographic Information Systems

- BIOL 302 - Geographic Information Systems
- CSCI 330 - Databases & Information Management
- NEUR 366 - Computational Modeling of Neural Systems
- PHYS 366 - Computational Modeling of Neural Systems
- STAT 230 - Sports Statistics
- STAT 260 - Text Mining
- STAT 400 - Statistical Machine Learning
- Relevant internship, honors theses, independent study, or other courses may be used as an elective by permission of the Chair of Mathematics and Computer Science

VI. Course Descriptions

Attach complete course proposal forms for each new or revised course included in the major.

In addition to the course proposals for our four new courses: STAT 230, STAT 260, STAT 335, and STAT 370, which are being sent with this proposal, we would like to make the following changes to existing courses. These are summarized in the following table, with the original and updated course descriptions, names, frequency of offering, and prerequisites.

Changes are highlighted in yellow.

We would like to rename MATH 117 as STAT 207. This will impact catalog copy for a lot of other departments as it is a prerequisite for their courses and required for their majors. It is also in narratives about advice for graduate school and med school. It is also in the section about credit for AP classes. We think that this change is important nevertheless because it reflects our hesitancy to have first time first year students take it, as it requires a lot of independent work and these students are not as successful as more experienced students. In addition, it makes the leveling consistent with the introductory statistics course with no prerequisites PSCI 220 Quantitative Approaches to Political Science that was approved by CAPC in the fall.

Current Catalog Copy	**New Revised Catalog Copy**
MATH 117 Introductory Statistics This course is designed to enable you to use statistics for data analysis and to understand the use of statistics in the media. The course makes use of SPSS, a	STAT 207 Introduction to Statistics Introduces statistics needed for data analysis and to understand statistical content in the media. Uses SPSS, a widely-used software application for statistics. Includes graphical and tabular

widely-used statistics package for the computer. Course topics include graphical and tabular presentation of data, measures of central tendency, dispersion, and shape, linear transformations of data, correlation, regression, basic probability and the normal probability model, sampling, t-tests, and one-way analysis of variance. Same as: MAT+861. Offered every semester. CLA-Quantitative	presentation of data, measures of central tendency, dispersion, and shape, linear transformations of data, correlation, regression, basic probability and the normal probability model, sampling, hypothesis testing, *t*-tests, and one-way analysis of variance. Same as: MAT+861. Offered every semester. CLA-Quantitative.
MATH 227 Intermediate Statistics This is the second semester of a two-semester sequence designed to prepare students to use statistics for data analysis. The course makes use of SPSS and builds on the foundation gained in MATH 117. It covers additional methods of statistical inference with a focus on analysis of variance and multiple regression. Understanding the design and analysis of published statistical studies that use these methods is an integral part of the course. Prerequisite: C- or better in MATH 117 or permission of instructor. Offered fall semester. CLA-Quantitative, CLA-Writing Intensive	STAT 227 Intermediate Statistics Completes (with STAT 207) a two-semester sequence in the use of statistics for data analysis. Uses SPSS and builds on the foundation gained in STAT 207. Introduces additional methods of statistical inference with a focus on analysis of variance and multiple regression. Focuses on the design and analysis of published statistical studies that use these methods. Prerequisite: C- or better in STAT 207 or permission of instructor. Offered fall semester. CLA-Quantitative, CLA-Writing Intensive. Offered fall semester.
MATH 320 Probability The fundamentals of probability theory including discrete and continuous random variables and their distributions, conditional probability and independence, joint probability distributions, expected values, moment generating	MATH 320 Probability Introduces the fundamental ideas of probability theory, including discrete and continuous random variables and their distributions, conditional probability and independence, joint probability distributions, expected values, moment generating functions,

functions, laws of large numbers, and limit theorems. Special topics selected from random walks, Markov chains, and applications as time permits. Prerequisite: C- or better in MATH 250 and MATH 310. Same as: MAT+866. Offered fall semester in odd years.	laws of large numbers, and limit theorems. Includes additional topics selected from random walks, Markov chains, and applications as time permits. Prerequisite: C- or better in (MATH 250 OR MATH 200) AND MATH 220. Same as: MAT+866. Offered fall semester.
STAT 240 Statistical Machine Learning This course provides students with an introduction to statistical machine learning techniques using the statistical programming language R. Emphasis will be on supervised learning methods such as linear and logistic regression, k-nearest neighbors, discriminant analysis, naive Bayes, and decision trees, as well as model assessment tools such as cross-validation. Prerequisite: MATH 117 Same as: DATA 240. Course Offering : Every Fall.	STAT 400 Statistical Machine Learning Introduces statistical machine learning techniques, using the statistical programming language R. Specific topics of focus include supervised learning methods, such as linear and logistic regression, k-nearest neighbors, discriminant analysis, and decision trees, and model assessment tools, such as cross-validation. We will also discuss the importance of ethics in statistics. Prerequisite: STAT 335. Course Offering: Every Spring. Capstone and Writing in the major.
DATA 253 Data Analysis Techniques for analysis of data using statistics and neural networks. Prerequisite: Minor requirements 1a (an introductory course in computer programming) and 1b (an introductory course in statistics. One of the two prerequisites may be taken concurrently with DATA 253. C- or better in MATH 117 **and** CSCI 149 or CSCI 150 or STAT 120	DATA 253 Applied Data Analysis Introduces applied techniques for the analysis of real-world data. Provides experience gathering, describing, and analyzing data, and using state-of-the-art tools from statistics and machine learning for data-driven decision-making. Translates data to actionable insights. Offered every other fall. Prerequisites: C- or better in STAT 207 and (STAT 120 or CSCI 149 or CSCI 150)
DATA 252 Modeling and	DATA 252 Modeling and Simulation

Simulation Techniques for modeling and simulating systems using a variety of techniques, including statistical models, Monte Carlo simulations, agent-based models, and machine learning. Prerequisite: C- or better in CSCI 149 or CSCI 150 or STAT 120	Introduces techniques for modeling and simulating random systems that are otherwise complicated to study. Covers sampling from probability distributions, approximate sampling, Monte Carlo and MCMC methods, bootstrap, and simulation based inference. Offered every other spring. Prerequisite: C- or better in CSCI 149 or CSCI 150 or STAT 120
DATA 251 Data Visualization A survey of techniques and tools for effectively visualizing small and large data sets in informative ways for a variety of audiences. Examples from a range of disciplines are used. Prerequisite: MATH 117 with a C- or higher.	DATA 251 Data Visualization Surveys techniques and tools for effectively visualizing small and large data sets in informative ways for a variety of audiences. Uses examples from a range of disciplines. Students will have the opportunity to articulate individual concepts in statistical analysis and in solving design problems. Encourages a critical awareness of the visual display of quantitative information in a historical context, through lectures, discussion, and critiques. Prerequisite: STAT 120 or CSCI 149 or CSCI 150 with a C- or higher.
New Course	STAT 335 Applied Regression Analysis Presents how to model a quantitative response in terms of a linear combination of predictors (or functions of predictors). Explains how to discover and deal with potential problems such as violations of assumptions, and to draw inference and predict using this model. Uses the R language in the R-studio environment. Prerequisite STAT 120 and STAT 207. This course is stacked with DATA 503. Offered

	annually in the fall.
New Course	STAT 260 Text Mining Introduces and develops text mining, the process of extracting knowledge from text. Implements text mining with the R programming language and the Shiny package. Explains relevant concepts and techniques from both R and text mining. Prerequisite STAT 120. Offered every other fall.
New course	STAT 230 Sports Statistics Introduces statistical techniques for analyzing sports data using spreadsheet software. Focuses on data and questions from baseball, football, and basketball. Applies tools and techniques from statistics, probability, and math that can be used by teams to improve their players, lineup selection, and game strategy. Prerequisite STAT 207. Offered every other spring.
New course	STAT 370 Bayesian Statistics Introduces Bayesian statistics, a specific and important approach for understanding probability and gaining information from data. Uses examples from several of the many disciplines and industries in which Bayesian statistics is used. Focuses on the concept and implementation of Bayesian statistics. Illustrates Bayes Theorem, explains how to incorporate prior beliefs in statistical models, and uses the computer to make statistical inference via simulation and Markov Chain Monte Carlo (MCMC) methods.

	Prerequisite MATH 320. Offered every other spring.

Finance Degree-Concentrations:

Proposals for Revision of an Existing Major (Masters in Finance)

1. Rationale

The faculty of Drew University's Master of Science in Finance program propose to add several subject-specific concentrations that graduate students in the program could choose from. These concentrations would leverage the expertise of core faculty in both the Department of Economics and Business and the Department of Mathematics and Computer Science. Pending acceptance of this proposal, starting in the fall of 2021, Drew would introduce two concentrations that incoming graduate students could choose from in pursuit of their Master of Science in Finance degree: Investment Management and Financial Engineering. As the Master of Science in Finance program grows, the addition of other concentrations, such as Real Estate and/or Personal Financial Management, may also build on core faculty expertise in these areas.

In putting forth this proposal, we have conducted some benchmarking (see Section VIII) on offering from what we would consider to be potential competitor institutions. The institutions in this benchmarking for the Financial Engineering concentration were largely selected from a group that consists of ranked educational institutions in the New York City area. New York City has really been the epicenter for advances in Financial Engineering and most of the available job opportunities in the field are in major trading cities such as New York, London and Hong Kong. As we discuss later in this proposal, these programs typically split between two main sub-fields in quantitative finance: mathematical finance and financial engineering. Degree programs in mathematical finance largely stress the theoretical, whereas financial engineering programs tend to stress application to practical, complex finance problems.

Where we believe that Drew University has an advantage is in developing Financial Engineering students with this skill set in the liberal arts tradition of building character and knowledge in finance. One of Drew University's core strengths has always been a focus on educating students on ethical foundations of different fields of study. For many in the finance industry, the field can be fraught with ethical landmines. For example, equity research analysts routinely have to balance a need to make sound stock market recommendations versus the impact that a sell or hold recommendations might have on their firm's investment banking business. For example, a sell recommendation might result in no investment banking business with the company that is the subject of the hold or sell recommendation. This is just one of the many conflicts of interest that exist in the finance industry.

There have also been many examples of practitioners misusing complex derivatives for their own financial gain. One thing that we believe will differentiate Drew graduate Finance students from others is that they will have training in how to deal with these ethical conflicts. There are case studies and articles included throughout the curriculum that teach students how to describe the implications of these types of conflicts. In several of the courses in our proposed curriculum for both concentrations, we highlight instances where others have made poor judgements and discuss why these choices might impact market activity, regulation and human behavior.

In addition to giving Drew University graduate-level Finance students a greater ability to focus on areas of interest, the two new concentrations would also assist in the process of process of entering the University Affiliation Program with the CFA Institute. This follows upon the successful introduction of the Master of Science in Finance Program's Academic Partnership with the Global Association of Risk Professionals (GARP) in the 2020-2021 academic year. One of the key goals in the CFA Program is to educate would-be CFA charterholders on the ethical practice of investment management. For example, there are specific standards of ethical investment return (%) presentation (GIPS), which will be included for Drew graduate students pursuing the Investment Management concentration. There are many *incorrect* ways to show investment performance that benefit the firm tabulating the returns. Higher investment returns typically lead to greater investor financial commitments, so there is a strong incentive for investment managers to overstate their investment return performance. In our program, graduate students enrolled in Investments I will be trained on how to accurately reflect investment performance using ethical standards of practice. Together, we believe that the creation of these new concentrations and implementation of changes needed to affiliate with the CFA Institute will allow Drew University's Master of Science in Finance program to grow with an even stronger commitment to Drew's educational mission of the cultivation of the whole person. In addition, the Financial Engineering concentration will allow for Drew to build on core faculty expertise and take advantage of Drew's distinct locational advantage and focus on developing students that are adept at using complex financial models and techniques to evaluate investment opportunities.

II. Learning Objectives

The learning objectives of the program will change slightly as most students are expected to select one of the two new concentrations to pursue. In both cases, the plan is to continue to emphasize the ethical practice of Finance. This is done directly in the FIN 502 Financial Risk Management and FIN 625 Derivatives classes for Drew graduate students concentrating in Financial Engineering. However, it will be better integrated into the learning outcomes for Investment Management through the FIN 503 Investment class. The Master of Science in Finance program always provides students with an immersive experience. However, with the new concentrations, students will be able to focus more on industry components of most interest. Students in both the Investment Management and Financial Engineering concentrations will be required to develop critical thinking and communications skills, which are outlined in the program's Student Learning Objectives.

We have identified the following goals and anticipated student learning outcomes:

- ***Goal 1: Develop Finance Knowledge and Critical Thinking Skills***
    - Our graduates will demonstrate an understanding of financial theories, tools, and concepts, and be able to use critical thinking skills to apply them to solve myriad problems in finance.

Learning Outcomes: Students will be able to ...

1. Utilize a range of advanced quantitative models and techniques to evaluate statistical relationships in data sets, including (but not limited to) financial asset prices.
2. Assess risks in financial markets and in complex financial instruments and structures.
3. Assess firm value through the detailed analysis of financial statements.

- ***Goal 2: Collaboration and Communications Skills***
    - Finance requires the regular use of collaboration and knowledge-sharing with others. Students have to be able to collaborate and communicate with others in order to succeed. Finance is also a field where the application of ethical judgement is as important as technical knowledge.

Learning Outcomes: Students will be able to …

4. Effectively communicate the risks and opportunities of a complex investment portfolio generated as a team project to an audience of financial experts and industry practitioners.
5. Describe the implications of common ethical conflicts in the finance industry, including evaluating the regulatory and market implications of well-known examples of industry ethical failure.

There will be some differences in terms of emphasis in each of the concentrations. The Financial Engineering concentration has a much more quantitative focus, with students able to evaluate complex securities and structures using some of the latest techniques in finance and data science. The Investment Management concentration is taught with the goal of getting practitioners ready for what they will face in jobs in the investments industry. There are likely to be more team-based assignments, which is similar to how a modern portfolio management team at a large employer like BlackRock, PIMCO, or Blackstone actually works. While the Financial Engineering students will also develop these skills, they also have to balance those needs with having a sharp individual grasp of technical areas. Each of the programs intentionally are taught with investment ethics throughout. Ethics is integrated into the curriculum via assigned case studies of historic market ethical failures (FIN 502 Financial Risk Management and FIN 625 Derivatives), current examples from financial media like Bloomberg, the Wall Street Journal and the Financial Times (FIN 502 Financial Risk Management, FIN 625 Derivatives, FIN 523 Behavioral Finance), and through discussion of specific ethical conduct standards for investment professionals (FIN 503 Investments, FIN 523 Behavioral Finance) related to the CFA Institute and Global Association of Risk Professionals (FRM) curriculums. For a mapping of how each SLO is implemented at the course level, please see the Appendix.

2. Proposed Changes to the Curriculum

1. *Explain each proposed change to the major individually;*

   The two new concentrations that will be made available will augment each student's learning experience and allow them to more effectively specialize in areas of interest. Each of the concentrations will come with their own core requirements. A Master of Science in Finance student pursing the Investment Management concentration would have to take FIN 501 Financial Statement Analysis and FIN 503 Investments I in addition to a new course in Financial Economics (FIN 507). During the second semester, Investment Management students would take the core FIN 505 Corporate Finance class, as well as FIN 523 Behavioral Finance, FIN 621 Investment II (International) and FIN 683 Portfolio Management & Analysis. During the summer semester, Investment Management students would take FIN 680 Finance Internship and FIN 688 Capstone. Some students may start internships early, whereby the FIN 680 Finance Internship may be taken in the spring semester. Over time, Drew may expand these elective offerings as the Finance faculty grows.

   Students pursuing the new Financial Engineering concentration would also take FIN 507 Financial Economics in their first semester, but would take FIN 502 Financial Risk Management, DATA 503 Applied Regression Analysis and DATA 505 Statistics Using R. In the spring semester, there would be one required course, a new FIN 626 Financial Engineering and students would be required to take FIN 625 Derivatives, DATA 502 Data Visualization and DATA 601 Statistical Machine Learning. During the summer, Financial Engineering students would take the FIN 680 Finance Internship and FIN 688 Capstone. Some students may elect to start internships early, whereby the FIN 680 Finance Internship may be taken in the spring semester. As the Finance and Data Analytics faculties grow at Drew, additional electives may be added.

   Lastly, it is possible that some students would prefer to graduate without a concentration. In these cases, the student would elect to take many of the same classes that are part of the Master of Science program now. The first semester would include: 501 Financial Statement Analysis, FIN 502 Financial Risk Management, FIN 503 Investments I, and FIN 507 Financial Economics. During the spring semester, students would take FIN 505 Corporate Finance and would then have their choice of three electives. In the summer semester, students not pursuing concentrations would take FIN 680 Finance Internship and FIN 688 Capstone. Some students may elect to start internships early, whereby the FIN 680 Finance Internship may be taken in the spring semester.

2. *Provide comparison between new major and old major;*

The new concentrations will have the same number of credits required, will feature internships and a capstone experience, and have the same basic structure. Each of the concentrations (as well as the third option of no concentration) have four required courses in the fall semester and one required core class in the spring semester. Therefore, in terms of program structure, very little has changed. Each of the new concentrations is described in section III.a. (above). The only difference between the current Master of Science in Finance degree and the third option (no concentration) will be that students are not required to take FIN 504 Financial Quantitative Analysis but will instead take FIN 507 Financial Economics. It is anticipated that these changes will increase enrollment in Data Analytics classes as well as offer Master of Science in Finance students a better integration of topics and skills.

3. *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.*

Below is the current Caspersen 2020-2021 catalogue entry for the Master of Science in Finance Program. As this proposal is an enhancement to the existing course framework and approach, we do not anticipate any changes.

About the Program
Drew University's Master of Science in Finance program is a one-year immersion in the quantitative and analytical methods and tools used throughout the finance industry. Students master mathematical, critical thinking, communication, and presentation skills in both individual and group settings. Graduates are prepared for careers in a variety of organizations, including global corporations, government agencies, and nonprofits.

Investment Management Concentration (catalogue description)
The Investment Management concentration in the Master of Science in Finance program is intended for students most interested in pursuing careers in either retail or institutional portfolio management, investment services, or trading. This concentration emphasizes expertise in financial statement analysis, investment ethics, and advanced portfolio management techniques. It is anticipated that many of the students in the Investment Management concentration may begin their pursuit of the Chartered Financial Analyst (CFA) designation during their studies at Drew University. The curriculum is closely aligned with the learning topics identified by the CFA Institute.

Full Time Program (Investment Management Concentration)

Fall Semester		Credits	Instructor	Day
FIN 501	Financial Statement Analysis	3	Pinto	M
FIN 502	Financial Risk Management	3	Firestone	R
FIN 503	Investments I	3	Pinto	W
FIN 507	*NEW* Financial Economics	3	Firestone	T
Spring Semester				
FIN 505	Corporate Finance	3	Anderson	W
FIN 523	Behavioral Finance	3	Firestone	T/R
FIN 621	Investments II (Intl Investments)	3	Pinto	M
FIN 683	Portfolio Management & Analysis	3	Nolan	R
Summer Semester				
FIN 680	Finance Internship	3	Firestone	TBD
FIN 688	Finance Capstone (joint)	3	Firestone	TBD

Part Time Program (Investment Management Concentration)

Financial Engineering Concentration (catalogue description)

Financial engineering is a multidisciplinary field, where the application of finance, mathematics, programming and engineering methods come together to build models and solve complex financial problems. The growth in this field over the last several decades has been material, as employers seek out graduates with advanced quantitative and analytical skills. Across financial markets, there is a reliance on financial engineering in algorithmic trading, risk management, credit structuring, securitization, and derivatives modeling. The Financial Engineering concentration within the Master of Science in Finance program will provide a practical and ethical foundation for solving these complex financial problems. The Financial Engineering concentration is a collaboration between the Departments of Economics and Business and Mathematics and Computer Science to offer cutting edge learning outcomes.

Full Time Program

Fall Semester		Credits	Instructor	Day
FIN 502	Financial Risk Management	3	Firestone	R
FIN 507	*NEW* Financial Economics	3	Firestone	T
DATA 503	Applied Regression Analysis	3	Small	W
DATA 505	Statistics Using R	3	Small	M
Spring Semester				
FIN 626	*NEW* Financial Engineering	3	Firestone	M
FIN 625	Derivatives	3	Firestone	T
DATA 502	Data Visualization	3	Onulak	W
DATA 601	Statistical Machine Learning	3	Small	R
Summer Semester				
FIN 680	Finance Internship	3	Firestone	TBD
FIN 688	Finance Capstone (joint)	0-3.0	Firestone	TBD

Part Time Program

Fall Semester		Credits	Instructor	Day
FIN 507	*NEW* Financial Economics	3	Firestone	T
DATA 505	Statistics Using R	3	Small	M
Spring Semester				
FIN 626	*NEW* Financial Engineering	3	Firestone	M
DATA 502	Data Visualization	3	Onulak	W
Fall Semester				
FIN 502	Financial Risk Management	3	Firestone	R
DATA 503	Applied Regression Analysis	3	Small	W
Spring Semester				
FIN 625	Derivatives	3	Firestone	T
DATA 601	Statistical Machine Learning	3	Small	R
Summer Semester				
FIN 680	Finance Internship	0-3.0	Firestone	TBD
FIN 688	Finance Capstone (joint)	3	Firestone	TBD

Master of Science in Finance w/o Concentration (catalogue description)

While most students will select from one of the two available concentrations, the Master of Science in Finance program will not require students to graduate with a specific concentration area. Students that are interested in graduating with a more general Master of Science in Finance degree can accomplish this by taking: FIN 501 Financial Statement Analysis, FIN 503 Investments I and FIN 507 Financial Economics and an additional 500-level or above Finance or Data Science course during their first semester in the program. In the second semester, students must take FIN 505 Corporate Finance and three electives of their choice. During the summer semester, all students would take both FIN 680 Finance Internship (unless taken during an earlier semester) and the FIN 688 Capstone course. The combination of these courses is substantially similar to the original Master of Science in Finance program and would allow for graduation with a Master's degree without a specific concentration area.

Resources

The Master of Science in Finance program at Drew University currently relies on two full time faculty members (Pinto, Firestone) and is supplemented by two adjuncts, each teaching a single 3.0 credit class (Corporate Finance, Portfolio Management) in the Spring semester. This proposal would not entail any changes in the course load for either core faculty member. Professor Firestone's courses would change slightly. Instead of teaching BST 304 Finance (undergraduate class) in the fall 2021 semester, Instructor David Anderson would add that course. This would allow Firestone to pick up the FIN 507 Financial Economics course. In addition, with the changes to the curriculum to eliminate FIN 504 Financial Quantitative Analysis (the Statistics in R class is a natural substitute), Firestone would change from a 3-2 schedule to a 2-3. During the spring semester, Firestone would teach: FIN 523 Behavioral Finance, FIN 626 Financial Engineering and FIN 625 Derivatives. Therefore, the short term needs of the concentrations proposal could be met without major changes in course load.

Convener
Steve Firestone, sfirestone@drew.edu

Immersive Experience:
The financial internship allows students to apply their classroom skills within a time-sensitive business environment. Drew's proximity to New York City provides numerous opportunities for internships in the financial markets, investments, financial engineering and corporate finance.

Integrative Learning:
The Capstone experience brings together the skills and perspectives gained through the program, as students work in small groups on analyzing and presenting a multifaceted financial case requiring both quantitative and qualitative assessments of the firm and market environments.

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
N/A	FIN 626	Financial Engineering	X			
N/A	FIN 507	Financial Economics	X			
FIN 504	N/A	Quantitative Financial Analysis		X		

IV. Impact on Other Departments

The Master of Science in Finance program can enhance its offerings by introducing two new concentrations: Investment Management and Financial Engineering. These new concentrations will build on Drew University's success in interdisciplinary education, particularly in the way that the Financial Engineering concentration will leverage successful collaboration between the Departments of Economics and Business and Department of Mathematics and Computer Science. Financial engineering is by nature a multidisciplinary field, where the application of finance, mathematics, programming and engineering methods come together to build models to solve complex financial problems. The growth in this field over the last several decades has been material, as employers seek out graduates with advanced quantitative and analytical skill sets. Across financial markets, there is an increased reliance on financial engineering in algorithmic trading, risk management, credit structuring, securitization, and derivatives modeling.

The new concentration in Financial Engineering will require successful collaboration between the Departments of Economics and Business and Mathematics and Computer Science. This proposed concentration would allow a Master in Science in Finance student concentrating in Financial Engineering to complete half their core requirements in the Finance area and the other half in Data Science. Each of these four core classes are accommodated via current offerings. This would effectively leverage off the expertise held in both departments. For the second semester, we would propose introducing a new Financial Engineering core class to bring concepts and techniques together through practical applications using complex financial instruments. This class would focus on the direct application to complex financial assets, particularly derivatives, complex fixed income and equity instruments, and market-based financing tools. The new Financial Engineering concentration likely will increase enrollment in Drew University's Master of Science in Data Analytics classes. These changes have been discussed with the Department of Mathematics and the Program Director of the Master's in Data Analytics.

V. Transition Plan

Since the full-time version of the Master of Science in Finance program is a one-year program, the introduction of the new concentrations in Investment Management and Financial Engineering are not expected to have a material impact on existing full-time students. However, there may be a small group of graduate students that may be in the process of completing the Master of Science in Finance program on a part-time basis. Since the new concentrations will each require additional coursework, students would be required to complete whatever classes are needed/missing in order to graduate with either the Investment Management or Financial Engineering concentrations. This may have the effect of delaying graduation for up to one year for a part-time Master of Science in Finance student, so it is anticipated that most will elect to graduate without the additional designations. However, since one of the program's hallmarks is its flexibility, we would not discourage a student from taking the additional coursework if it fits into their career goals and educational learning objectives. These discussions would be part of the academic advising framework that occurs regularly each semester.

VI. Revision of Minor

Master of Science in Finance students do not graduate with minors. No expected changes.

VII. Course Proposals

See attached forms for the proposed new FIN 626 Financial Engineering class as well as the new class in FIN 507 Financial Economics. The FIN 504 Quantitative Financial Analysis course will be phased out, with Financial Engineering concentration students going into the DATA 503 and DATA 505 classes as natural replacements.

VIII. Competitive Analysis (Financial Engineering)

As New York City is one of the leading employment areas for people focusing on financial engineering, there are more than a handful of local competitors (Fordham, NYU, Columbia, etc.) for graduate students interested in studying the broad field of quantitative finance. Quantitative finance would include both mathematical finance and financial engineering as two sub-fields. The primary difference between these two is program emphasis. Mathematical finance programs tend to emphasize theoretical foundations for pricing of complex financial instruments. Financial engineering programs tend to put the emphasis more squarely on practical application of theoretical problems with live cases. There may be circumstances where assets are mispriced due to their complexity, and our students would be in a strong position to identify those outliers using the theoretical and practical foundations taught in Drew's program. Our short-term goal would be to quickly grow the Financial Engineering concentration to approximately 10-15 students. It is expected that many of these students would come to develop specific skills, so the growth in this concentration is not expected to negatively impact any other Drew programs. Rather, this would bring new students into Drew that would otherwise be going to other institutions. Most of the universities offering this type of program are larger, state-run universities. Drew would be one of the only institutions offering a Financial Engineering concentration within a liberal arts framework. The personal attention, small class sizes, emphasis on communications skills and access to faculty with connections to Wall Street would make the Financial Engineering concentration attractive to many students. Also, the internship component of the program would be attractive to international candidates, many of whom do not have access to New York-area employers.

Quant Net Rankings of Financial Engineering Programs

There are several rankings of programs focusing on either Financial Engineering or Mathematical Finance available. The Quant Net rankings are very well-regarded throughout the industry and are noted on competitor institution websites. Of the ranked institutions on the Quant Net rankings, the following schools may be the closest nearest competitors for students: Rutgers-Newark, Fordham, Stevens Institute of Technology, and Lehigh. Most of the institutions on the Quant Net rankings are accredited by one of the two main business accreditation bodies, either the AACSB or the ACSBP. The Master of Science in Finance program at Drew University should continue to pursue the appropriate accreditation to attract the best graduate students in Finance. The Business faculty would therefore renew its initiatives to pursue ACSBP accreditation for the Master of Science in Finance program in the 2021-2022 academic year. While neither the AACSB or ACSBP organizations outline any specific requirements with respect to connecting finance to its ethical practice, we believe that this could be one of the differentiating factors that allow Drew University students to stand out in the market.

Rank	Program	Program	Cohort Size
1	Princeton University	MSF, Fin Engineering & Risk Magement Concentration	29 FT
2	Baruch College, CUNY	Financial Enginering	29 FT, 1 PT
3	Carnegie Mellon University	Computational Finance	98 FT
3	Columbia University	Financial Enginering	94 FT
5	University of California, Berkeley	Financial Enginering	93 FT
6	New York University	Mathematics in Finance	46 FT, 3 PT
7	Cornell University	Meng, FE Concentration	78 FT
8	Columbia University	Mathematics of Finance	106 FT, 5 PT
9	NYU Tandon School of Engineering	Financial Enginering	157 FT
10	Massachusetts Institute of Technology	MSF. Fin Enginerring Concentration	116 FT
11	Georgia Institute of Technology	Quantitative and Computational Finance	46 FT
12	University of Chicago	Financial Mathematics	75 FT, 7 PT
13	North Carolina State University	Financial Mathematics	17 FT, 1 PT
13	University of California, Los Angeles	Financial Enginering	75 FT
15	Rutgers University-Newark	Quantitative Finance	68 FT
15	University of Washington	Computational Finance & Risk Management	42 FT, 12 PT
17	Johns Hopkins University	Financial Mathematics	26 FT
18	Boston University	Mathematical Finance	101 FT
19	Fordham University	Quantitative Finance	74 FT
20	Stony Brook University	Quantitative Finance	11 FT
21	University of Minnesota	Financial Mathematics	25 FT, 4 PT
22	Stevens Institute of Technology	Financial Enginering	46 FT, 5 PT
23	Rensselaer Polytechnic Institute	Quantitative Finance and Risk Analytics	26 FT
24	Claremont Graduate University	Financial Enginering	9 FT
25	Illinois Institute of Technology	Mathematical Finance	6 FT
Notable			
NA	Lehigh University	Financial Enginering	12 FT
NA	Rutgers University-New Brunswick	Mathematical Finance	16 FT
NA	University of Connecticut	Applied Financial Mathematics	10 FT

Ranked Competitors

Rutgers-Newark (AACSB Accredited)

Rutgers-Newark offers a Master of Quantitative Finance degree (45 credits) which may be completed on either a full time or part time basis. However, Rutgers-Newark does not presently offer the ability for a student to complete the program on a part time basis. At some point, the student would have to switch to a full-time schedule, requiring a significant degree of work flexibility. Some of the core classes include: Analysis of Fixed Income, Econometrics, Numerical Analysis, and Derivatives. The program also offers electives in Data Mining, Credit Risk Modeling, and Portfolio Management. The cost of the program for a full-time student (NJ resident) is $13,852 per semester and $21,106 per semester for an out-of-state resident.

Fordham (AACSB Accredited)

Fordham University offers a Master of Science in Global Finance (36 credits) program as well as a Masters in Quantitative Finance (45 credits). The Global Finance program offers three tracks in: Corporate Finance, Financial Analytics, and Investment Management. Of the 36 credits, 15 are required, with classes in: Financial Modeling, International Financial Management, Global Investment Principles, Financial Econometrics, and Global Financial Markets. Fordham separately offers a M.S. in Quantitative Finance degree, but that is a 45-credit undertaking and students usually have an undergrad major in a quantitative subject.

Stevens Institute (AACSB Accredited)

Stevens Institute of Technology offers a Master's degree in Financial Engineering (30 credits). The core course requirements include: Stochastic Calculus for Financial Engineers, Pricing and Hedging, Computational Methods in Finance, Portfolio Theory and Applications, Advanced Derivatives, and Applied Statistics with Applications in Finance. They offer four possible specializations within the Financial Engineering degree, including: Algorithmic Trading Strategies, Financial Services Analytics, Financial Risk Engineering, and Financial Statistics. Stevens also has a capstone experience, but an internship is not one of the program requirements. Stevens program is also offered in both in-person and online modalities.

Unranked Competitors

Lehigh University (non-accredited)

Lehigh's M.S. in Financial Engineering program requires 30 credits. It has six required classes in: Stochastic Calculus, Financial Stochastic Analysis, Advanced Investments, Derivatives and Risk Management, Advanced Topics in Financial Management, and Financial Optimization. Certificate programs are also available in Data Science & Financial Analytics, Quantitative Risk Management, or Financial Operations Research.

Rutgers-New Brunswick (non-business accredited?)

The Department of Mathematics at Rutgers University-New Brunswick offers a Master's of Science degree in Mathematical Finance (30 credits). Core classes in this program include: Applied Time Series Analysis, Mathematical Finance I & II, Numerical Analysis I & II, and Regression Analysis. Elective courses include: Credit Risk Modeling, Applied Multivariate Analysis, and Interest Rate Derivatives Modeling. Prerequisites for admission to the program include, but are not limited to, the following: multivariable calculus, partial differential equations, and ordinary differential equations. It is unclear by the institution's marketing materials whether the AACSB accreditation that was received by the Rutgers Business School also applies to this degree.

New Jersey City University (ABCSP Accredited)

NJCU requires 18 credits in: Accounting for Business Entities, Behavioral Issues and Ethics in Management, Decision Analysis, Strategic Profitability Analysis: Accounting for Managers, Working Capital Management. NJCU offers multiple degree specializations, including: Business Analytics and Data Science, Financial Analysis, Financial Management, and Professional Financial Planning. NJCU also recently launched a new concentration in Financial Risk Management and Compliance. They also offer graduate certificates in: Financial Planning, Financial Management, Investment Analysis, Management Accounting, and Portfolio Management.

IX. Appendix

Investment Management Concentration

Course		**SLO1**	**SLO2**	**SLO3**	**SLO4**	**SLO5**
FIN 501	Financial Statement Analysis	X		X		
FIN 502	Financial Risk Management	X	X	X		X
FIN 503	Investments I	X	X			X
FIN 505	Corporate Finance	X	X	X		
FIN 507	Financial Economics	X	X			
FIN 523	Behavioral Finance		X			X
FIN 621	Investments II	X	X			X

FIN 683	Portfolio Management & Analysis	X	X	X	X	
FIN 680	Finance Internship					
FIN 688	Finance Capstone	X	X		X	

Financial Engineering Concentration

Course		SLO1	SLO2	SLO3	SLO4	SLO5
FIN 502	Financial Risk Management	X	X	X		X
FIN 507	Financial Economics	X	X			
FIN 626	Financial Engineering	X	X		X	
FIN 625	Derivatives	X	X		X	X
FIN 680	Finance Internship					
FIN 688	Finance Capstone	X	X		X	
DATA 502	Data Visualization	X				
DATA 503	Applied Regression	X				
DATA 505	Statistics Using R	X				
DATA 601	Statistical Machine Learning	X				

No Concentration

Course		SLO1	SLO2	SLO3	SLO4	SLO5
FIN 501	Financial Statement Analysis	X		X		
FIN 503	Investments 1	X	X			X
FIN 505	Corporate Finance	X	X	X		
FIN 507	Financial Economics	X	X			
FIN 523	Behavioral Finance		X			X

FIN 621	Investments II	X	X			X
FIN 625	Derivatives	X	X		X	X
FIN 683	Portfolio Management	X	X	X	X	
FIN 680	Finance Internship					
FIN 688	Finance Capstone	X	X		X	

Immersive Experience Amendment:

4.15.21

Since the Immersive Experience requirement was approved in March 2019, questions have arisen from students and their advisers about how similar or dissimilar those two experiences should be. The proposed addition to the catalog text addresses that question by creating a minimal restriction -- preventing students from using two halves of an honors thesis or two identical experiences -- but allowing maximum flexibility in their choices otherwise.

CAPC proposes the following addition to the Immersive Experience General Education Requirement.

8. Immersive Experiences

Students are required to complete two distinct Immersive Experiences as part of their Drew undergraduate education. ~~All students have two Immersive Experiences as part of their Drew undergraduate education.~~ These Immersive Experiences are concrete, real world applications of student's learning and development designed to help them explore opportunities and prepare for their futures. These experiences might be an internship, a full-semester domestic or international off-campus program, a short TREC (Travel, Rethink, Explore, Connect) experience, a community-based learning course, a mentored research, civic, or creative project, or participating in a mentored leadership position. ~~The Honors thesis courses 410 and 411 cannot both be counted toward the Immersive Experience requirement. With the exception of internships, a course number cannot be used twice to fulfill this requirement.~~

Students choose Immersive Experiences in consultation with their advisors; many Immersive Experiences require an application procedure. In order to participate in some Immersive Experiences, students need to meet application and eligibility requirements. Immersive Experiences require a minimum of 45 hours to complete all components of the experience. Immersive Experiences may or may not be credit bearing and they may or may not be paid. Students will document their Immersive Experiences in an eportfolio system. Students may

opt to complete additional Immersive Experiences. All Immersive Experiences appear on a student's official academic transcript.

Note to students admitted prior to Fall 2019: An Immersive Experience may be used to satisfy the Off-Campus Experience requirement.

Revision to Certificate for Conflict Resolution

Proposals for Revision of Certificate in Conflict Resolution and Leadership

I. Rationale

As we shift the study of conflict resolution into a certificate available to all students in degree programs at Drew and beyond Drew, we are bringing it into alignment with our other graduate certificates.

Reduce to 12 credits: All 9 of Drew's certificates have 12-15 credits of coursework. Both Data Analytics certificates, the Anglican Studies certificate, and the General Theological Studies certificate each have 12 credits. Conflict Resolution and Leadership will also be a 12 credit program because it is a basic studies certificate, and it should be something that could credibly be completed within or in tandem with our graduate degrees.

Remove the stand-alone internship requirement: This change increases the accessibility and sustainability of the certificate program. It especially allows us to offer this basic course of study for students across and outside of the United States. Of all our certificates, only the Medical Humanities Certificate has a practicum requirement, but this is built into a partnership we have with local health care providers. In the Certificate in Restorative Justice and Prison Ministries, students fulfill an internship or capstone through the regular required coursework in their degrees (MDiv, MATM, etc). In the Interfaith Peacebuilding certificate, students are encouraged to take one course as a problem-based learning course or internship. This last model will be an option for the elective in the Conflict Resolution and Leadership certificate.

II. Learning Objectives

The internship learning outcomes are addressed in course requirements. Skills-based learning and practice is a robust part of CRES 500 and CRES 510. Two regular elective offerings (CRES 515 and CRES 605) also have a strong skills-based approach that requires students to develop projects related to their contexts.

Student learning outcomes from the certificate meet requirements for basic knowledge and skills in the subject:

SLO	Students will be able to describe core principles of and approaches to conflict resolution and

1	peacebuilding;
SLO 2	Students will be able to describe the conditions under which religion, ethnicity, identity, ideology play a role in driving conflict;
SLO 3	Students will be able to employ key competencies for effective mediation, using active listening, conflict management, idea generation, consensus decision making, interest based problem solving, and meeting facilitation in mediation simulations
SLO 4	Students will be able to compare and contrast conflict resolution strategies across cultures, recognizing a diversity of approaches to conflict resolution around the world.

III. Proposed Changes to the Curriculum

a. Reduce the total credits to 12
b. Remove the specific internship requirement and make it a recommendation for the electives

Certificate in Conflict Resolution and Leadership

~~About the program.~~

Certificate Requirements (12 credits)

Students completing the certificate in Conflict Resolution and Leadership (CRL) should complete 12 credit hours. ~~from Conflict Resolution listings (CRES), as well as approved courses from the Caspersen and Theological School course offerings.~~

I. Required Courses (9 credits)

- CRES 500 - Intro to Peace and Conflict Studies
- CRES 510 - Mediation and Conflict Management
- CRES 520 - World Wisdom for Conflict Resolution

II. Electives (3 credits)

Taken from existing ~~Arts and Letters:~~ Conflict Resolution courses (CRES), as well as courses from the Caspersen School or Theological School with approval by the Convener ~~Convenor~~.

~~**III. Capstone and Internship (3 credits)**~~

~~ARCR 900 - Conflict Resolution: Capstone + Internship~~

IV. Impact on Other Departments

We will no longer need a separate internship course to be offered on faculty load. Students will be encouraged to adapt the internship learning they already do in their degree programs to deepen learning in the certificate area.

V. Transition Plan

Any student currently in the 15 credit program will be allowed to substitute the internship with an elective. Students admitted beginning in Fall 2021 will be required to complete only 12 credits.

For Information:

New Courses:

BST 206/Trade and the role of Swahili in East Africa

This course introduces students to a long history of trade relations in East Africa. The course also provides students with a rudimentary knowledge of the Swahili language as it is spoken today in the region. This lingua franca, which for centuries facilitated trade and contact in the region, is a first language for over 50 million people and a second language for even more in half a dozen countries. The discussion of this language is part of a broader discussion of the current language situation in sub-Saharan Africa that gives further evidence of trade and contact. At the end of the course, students should have a first understanding of business and trade in East Africa and have a basic knowledge of the Swahili language. CLA-Breadth/Interdisciplinary, CLA-Breadth/Social Science, CLA-Diversity International.

DEPT 296/Intermediate Research

Students have an opportunity to explore laboratory, field, or other scholarly research under the direction of a faculty member.

INTC 201/On-campus Internship Experience

Through internships, students apply their learning in the real-world, explore diverse paths, continue their development of transferable skills, engage with mentors, and prepare for future opportunities. Students may complete paid internships within Drew. Students must complete a minimum of 35 hours of internship involvement. Students produce an ePortfolio to document this experience which includes summary and reflection components; this is evaluated by the staff supervisor who also serves as the student's mentor. Students must also participate in an evaluation process in conjunction with their staff supervisor. Internships must be acquired by students by the start of the registration process. Signature of Drew supervisor required for registration. Graded Pass/Fail. Course may be repeated. More information, including registration application, can be found on the Career Center website. CLA-Off Campus Experience, CLA Immersive Experience.

STAT 230/Sports Statistics

Applies statistical and analytical techniques to data from the sports world, with an emphasis on baseball, football, and basketball. Addresses the full range of problem-solving requirements, from data collection and curation, question formulation, analysis, conclusion, and application, using

Microsoft Excel as the primary software tool. Students will have an opportunity to use mathematics, probability, and statistics for decision-making in sports concerns like choosing fourth-down plays, arguing whether cheating occurred, and optimizing lineup selection. Prerequisite C- or better in STAT 207. Offered every other year.

STAT 260/Text Mining
Introduces and develops text mining, the process of extracting knowledge from text. Implements text mining with the R programming language and the Shiny package. Explains relevant concepts and techniques from both R and text mining. Prerequisite C- or better in STAT 120. Offered every other spring.

STAT 335/503/Applied Regression Analysis
Presents how to model a quantitative response in terms of a linear combination of predictors (or functions of predictors). Explains how to discover and deal with potential problems such as violations of assumptions, and to draw inference and predict using this model. Uses the R language in the R-studio environment. Prerequisite C- or better in STAT 120 and C- or better in STAT 217. This course is stacked with DATA 503. Offered annually in the fall.

STAT 370/Bayesian Statistics
Involves principles of Bayesian statistics, a specific and important approach for understanding probability and gaining information from data. Uses examples from several of the many disciplines and industries in which Bayesian statistics are used. Focuses on the concepts and implementation of Bayesian statistics. Illustrates Bayes Theorem, explains how to incorporate prior beliefs in statistical models, and uses the computer to make statistical inference via simulation and Markov Chain Monte Carlo (MCMC) methods. Prerequisite C- or better in MATH 320. Offered every other spring.

Change to Existing Courses:
INTC 200/Internship Experience
Current:
0-4 credits

Requirements are 165 hours of satisfactory performance for an approved four-credit internship project and 75 hours for a two-credit internship project, reflections, job supervisor evaluations, a verification of hours worked, and a paper graded by a faculty evaluator. At most eight credits in internship may be counted toward the B.A. or B.S. degree. Graded Pass/Fail. Course may be repeated. A signed student contract with approval from both an instructor and the internship supervisor are required for registration. CLA-Off Campus Experience, CLA-Immersive Experience.
Proposed:
0-4 credits
Through internships, students apply their learning in the real-world, explore diverse paths, continue their development of transferable skills, engage with mentors, and prepare for future opportunities. Students may complete internships with external organizations for 0-4 credits, and these internships may be paid or unpaid. Requirements range from 30-165 hours of internship involvement, depending on the number of credit hours. Students produce an eportfolio to document this experience which

includes summary and reflection components; this is evaluated by a faculty member. Students must also submit timesheets and evaluations, in collaboration with their internship supervisor. Students must have been offered an internship to start the INTC registration process. Majors with required internships may have additional requirements associated with those internships. Signature of instructor required for registration. Graded Pass/Fail. Course may be repeated, but at most, eight (8) internship credits may be counted toward the B.A. or B.S. degree. More information, including registration application, can be found on the Career Center website. CLA-Off Campus Experience, CLA Immersive Experience.

INTO Drew Report,
May 7, 2021

Cumulative CLA Performance Review, 2014-2021

Enrollment and Student Success:
Since program creation, Drew has had consistent program growth (excluding COVID impacted 2020-2021 year), with great success retaining students. Students have also consistently demonstrated success meeting matriculation requirements.

First to Second Year Retention (first time, first year):

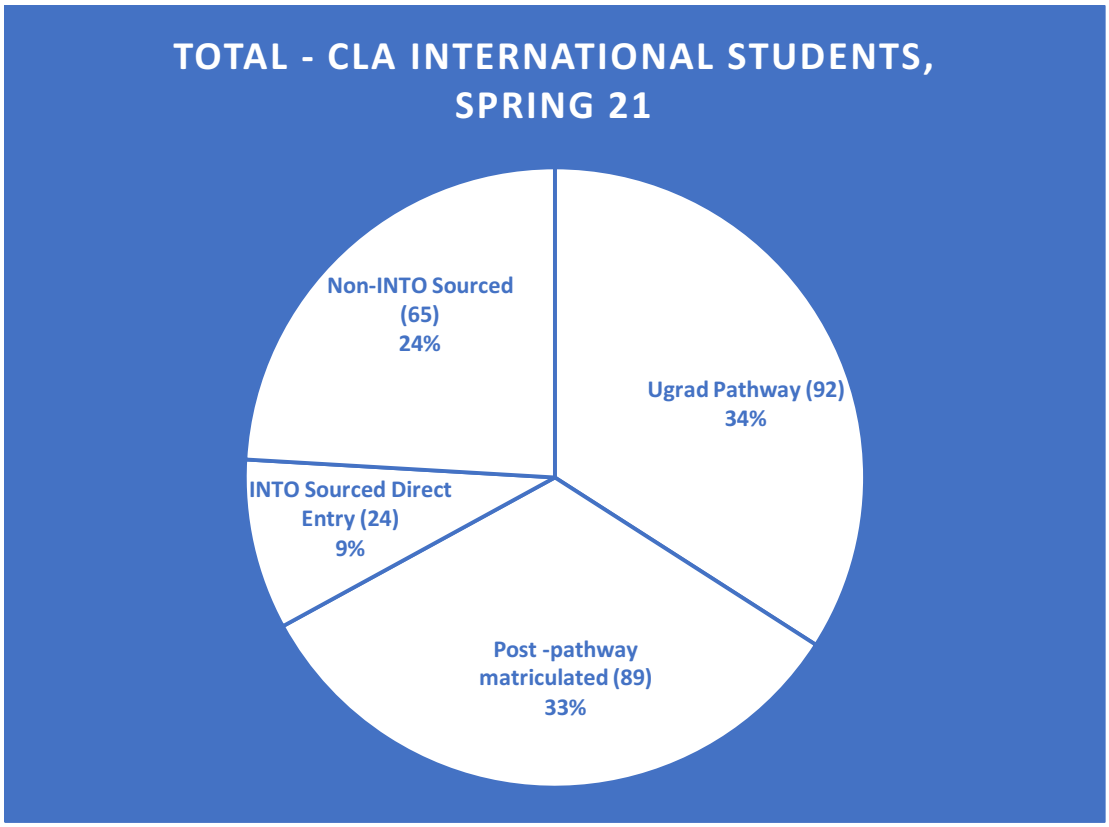
Starter Year	New Students	Enrolled Yr 2	First to Second Yr Retention	*Direct Entry comparison*
2014-15	32	28	87.5%	*85% overall*
2015-16	54	48	89.0%	*87% overall*
2016-17	63	58	92.0%	*85% overall*
2017-18	74	68	91.8%	*84% overall*
2018-19	65	58	89.2%	*85% overall*
2019-20	57	50 of 55 (2 military leave)	90.9%	*88% overall*
2020-21	38	TBD	TBD	*TBD*

All CLA Pathway Students – Eligibility to Matriculate/Retention Post-Pathway:

Cumulatively, 95.25 of students completing pathway have met matriculation requirements. 87.8% of the eligible students were retained at Drew to date (vs. original projection of 50% in 2014.)

Ugrad PW completer year	Completed	Eligible	Retained	% Eligible	% Retained of total
2015-2016	27	25	21	**92.6%**	**77.8%**
2016-17	44	42	34	**95.5%**	**77.3%**
2017-18	50	46	42	**92.0%**	**84.0%**
2018-19	57	54	50	**94.7%**	**87.7%**
2019-20	72	71	62	**98.6%**	**86.1%**
2020-21	58	7 (50 pending)	TBD	**TBD**	**TBD**
total, excluding 20-21	250	238	209		

Contribution to Current CLA Enrollments (Total 277 active students):
INTO recruited = 76% of total
Former Pathway = 49.4% of matriculated students



(Currently on Leave of Absence: 19 INTO-sourced students, excluded from above)

INTO Center Enrollments, Last Two Years (Spring semester):

Program	Spring 2020	Spring 2021
Academic English	15	10
Undergraduate Pathway - First Time, first Year	103	81
Pathway - Transfer Students	13	11
Graduate Pathway - Finance	8	3
Graduate Pathway - Data Analytics	4	0
Graduate Pathway - Education	1	2
Total	144	107

Matriculated INTO-Sourced Undergraduate Student Major Distribution, Last Two Years:

Anthropology	1
Art History	2
Biochemistry/Biology	8
Business/Finance	61
Chemistry	2
Computer Science	21
Economics	18
English	4
French	2
International Relations/PSCI	6
Mathematics	10
Media Comms	10
Music	2
Neuroscience	3
Physics	8
Psychology	5
Sociology	4
Studio Art	12
Theatre Arts	5

Transition Out of COVID Affected World:

Opportunity: US State Department has now granted a National Interest Exemption allowing travel to the USA for students from travel-ban countries. This allows visa holders to travel after August 1.

Opportunity: Drew vaccine requirement generally received positively globally; combined-degree program success

Challenge: Multi-Year Trend - competition from growing number of high-ranked universities lowering entry requirements to enroll international students

Challenge: Survey data indicating international students will make enrollment decisions very late this Summer given uncertainty around travel and COVID safety (June-July)

Challenge: Visa appointment availability suggests significant number of students will not get to USA in time for face-to-face class start (This affects BOTH new and rising second year students who studied virtually):

Residence	Risk of Not Getting Visa Appt for Fall (as of 5/6)	Update week commencing May 3
Azerbaijan	Some Risk	Open, limited appointments
Brazil	High Risk	Emergency Appointments only- no confirmation students are getting these
Cambodia	Some Risk	Office is currently closed until the end of April - we need to wait until re-opening to gauge visa appt wait times.
China P.R.	Some Risk	Appointments open, significant backlog (16 months)
Colombia	High Risk	Emergency Appointments - September Appointments
Georgia	Some Risk	Open, limited appointments
Ghana	Some Risk	Students are getting emergency appointments - but can only request if it is within 45 days of start date.
India	High Risk	Dehli - closed Mumbai - closed Hyderabad - No dates Chennai - closed Kolkata - Closed
Indonesia	Low Risk	Appointments 7-15 days
Japan	Low Risk	less than 1 week-3 weeks
Kazakhstan	High Risk	Almaty - October Appointments Nur-Sultan - August Appointments Non-Residents are only able to make appointments in Nur-Sultan for end of September: Agents say that ealier slots appear for June-July occasionally

Kenya	High Risk	Earliest availability is April 2022; government has reopened, so we anticipate the Embassy will follow.
Kyrgyzstan	Low Risk	Open
Lebanon	Some Risk	Limited appointments for student visas. Emergency appointments available
Malaysia	High Risk	8 weeks + (currently June 30th)
Mexico	Low Risk	4 days
Mongolia	High Risk	Non-immigrant visa processing suspended
Myanmar	Risk Unknown	Pending Update
Nepal	Risk Unknown	Pending Update
Nigeria	Some Risk	Appointment availability will increase in May and June to ensure F21 students can interview and travel in time.
Pakistan	Some Risk	Availability of appointments in Karachi are now within normal processing times i.e. 3 weeks. Islamabad dates also have come down from August to July with emergency appointments available.
Panama	High Risk	Over 70 days
Russia	High Risk	As of May 12, non-immigrant visa processing will cease indefinitely
Saudi Arabia	Low Risk	Jeddah and Riyadh are able to make appointments in 7 days Dhahran - 22 days
Singapore	Low Risk	1 day
South Africa	Risk Unknown	Pending Update
South Korea	Low Risk	2-3 weeks
Spain	Risk Unknown	Pending Update
Taiwan	Low Risk	About 1 week. The earliest visa appointment time is May 13th
Thailand	Low Risk	Bangkok - 7 calendar days
Turkey	Some Risk	July for earliest appointments - country going back into lockdown
Ukraine	Some Risk	Open for residents, limited and/or very late slots (September and onwards) available to non-residents
United Arab Emirates	Low Risk	Student visa appointments are currently available Emergency appointments available
Vietnam	Low Risk	Ho Chi Minh - 22 calendar days Hanoi - 3 calendar days

Students' ability to access visa appointments and travel this summer will rapidly evolving and hard to predict . . .

Library Report

Staffing Updates
Recruitment is getting underway for the newly-configured position of Special Collections Reference Librarian and Curator of the Methodist Collection. Search committee members:

- Ashley Boggan-Dreff, General Secretary, United Methodist General Commission on Archives and History
- Jesse Mann, Theological Librarian (chair)
- Danielle Reay, Digital Scholarship Technology Manager
- Candace Reilly, Interim Manager of Methodist Library & Special Collections

As previously announced, I am retiring from Drew effective June 4. Following conversations with members of the Library faculty and staff, Provost Jessica Lakin has appointed Guy Dobson as Interim Director of the University Library. His appointment will begin on May 17th and continue through the end of the calendar year. Please join me in congratulating Guy, and thanking him for his willingness to serve in this capacity.

Shawn Spaventa, Director of Instructional Technology, will report to Provost Lakin directly during this time period. The ongoing collaboration with Instructional Tech and the Library will continue as always.

Please refer to the April 30 packet for additional information about the Library and Instructional Technology.

In closing, thanks again for all of the generosity, expertise, collegiality, and friendship you have shared during my time here. I will always be grateful for the honor of serving as Drew University Librarian. With all best wishes,

Andrew

LAUNCH UPDATES - May, 2021

Survey Reminder: Building AY21-22 Launch Communities programs to meet your needs

You are still on time to help us plan next year's programming for the Launch Communities. We are very interested in tapping into your ideas and needs so that we can best support your work at Drew. Partnering in this way will ensure our responsiveness to students' and your needs or opportunities. Please take a few minutes to complete the **survey** if you have not had the chance to do so yet.

Please help us ask seniors to complete their Drew First Destination Survey:

We have begun collecting career outcomes data from 2021 seniors through the Drew First Destination Survey. Through Handshake, we will continue collecting data from recent alumnx 3, 6 and 12 months out, making this first data gathering instance the most important for our effective customized follow up.

Please help us distribute the First Destination Survey to seniors in your departments. To access the survey, students will need to go to https://drew.joinhandshake.com/schools/880 and click on the First Destination Survey button to complete the survey.

Academic Standing Committee Report: AY 2020-2021

The Academic Standing Committee (ASC) considered 641 petitions (as of 5/7) during the 2020-2021 academic year. See below for breakdown data of petition types and outcomes, as well as summarizing notes on the committee's process this academic year.

This year saw a slight uptick in overall ASC petitions from the previous year. Considering the additional pressure of DVT and the pandemic, ASC worked to support struggling students and contribute to retention by allowing for greater flexibility with calendar deadlines and reasonable exceptions. In particular, ASC approved a larger number of late withdrawals, part-time enrollments, leaves of absence, and re-entries. Students who struggled during DVT, including international, disadvantaged, and lower-performing students comprised a noticeable contingent of petitioning students.

ASC was consulted on relevant university policies including: P/LP/U grade mode, Grade Forgiveness Policy for DSEM, Registration-Blocking Holds, and Adding a Major after being cleared for conferral. The committee worked with the Dean's Office and the Registrar on consistent messaging and cleaning up discrepancies in how relevant policies are listed throughout the catalogue and website. In addition, ASC updated its student-facing forms, working to make it easier for students to navigate, as well as to streamline workflow/communication with the Registrar and other relevant offices and advisors.

# Petitions	***AY20-21***	***AY 19-20***
Summer*	61	94
Fall	301	241
Spring ***(as of 5/7)***	279	271
TOTAL	641	606

*Summer preceding AY (i.e. Summer of 2019 for AY 19-20)

AY 20-21

	Total Petitions	*Approved*	*Denied*	*Hold*	*Refer to CAPC*	*No action*	*Invalid petition*	*Student Withdrew Petition*
Summer	61	50	4	5	0	2	0	0
Fall	301	245	14	3	5	32	0	2
Spring	279	249	13	3	3	5	0	6
TOTAL	**641**	544	31	11	8	39	0	8

Type of Petition Considered	**Summer 20**	**Fall 20**	**Spring 21**
Add course after deadline	5	73	54
Late request to add/change internship	2	5	2
Change grade mode to Pass/Fail	6		
Retroactive Change grade mode to P/LP/U	6	37	38
Petition for 2 or more P/LP/U grade mode changes (SP21)			22
Exceptions to Grade Forgiveness policy		8	8
Retroactive Grade Forgiveness		8	
Change number of course credits		2	5
Exceed Credit Limit	1	17	10
Extended Incomplete	8	2	6

Extended LOA		2	4
Final Grade Change (By Faculty)	1	4	2
FL Waiver	1	4	2
Part-time enrollment		17	7
Re-Entry	19	51	29
Request to convert Honors Thesis to IS			7
Request to participate in May graduation		1	3
Switch sections of a course			7
Retroactive Withdrawal from course after deadline with W	3	30	25
Retroactive Withdrawal from course after deadline without W	4	28	23
Other	5	12	25

Satisfactory Academic Progress Review

	Number of Students		
Academic Standing (at start of semester)	**Spring 21**	**Fall 20**	**Spring 20**
Required Withdrawal	4	7	12
Probation*	24	28	32
Warning*	85	25	84

*Active students only (student on Leave of Absence excluded)

The drop in Warning standings for F20 can be attributed to a number of factors: the introduction of the P/LP/U grade mode in SP20, the temporary relaxation of pace requirements in SP20, and the increase in LOA requests for F20. As pace requirements were reinstated in F20 and an accumulation of LP and U grades was used to identify gaps in progress at the end of the F20 term, Warning standings increased for SP21.

CAE Spring Semester Report & Looking Ahead
Faculty Meeting May 13th Spring 2021

This report contains the following: 1) What's New at the CAE (i.e., updates, new programming, etc.) 2) Submit Tutor Nominations 3) Student Academic Support Survey Overview, Summary of Feedback, and Data Insights 4) CAE Data Overview (i.e., total tutoring sessions, tutor satisfaction results fall 20 & spring 21, etc.), and 5) How to Contact Us

1) What's New at the CAE

- **UPDATE! Fall 2021 Tutoring Support:** At this time, the Center of Academic Excellence (CAE) has decided to offer tutoring, writing support, and academic coaching **both onsite and online** throughout the Fall 2021 semester, either at the CAE, or, using the WCOnline consultation room and/or Zoom. The CAE is adopting the 'hybrid' model for tutoring, and the CAE will be providing in-person and online support to Drew students. All appointments can be made on WCOnline, the center's online appointment platform: https://drew.mywconline.com

- **NEW! Embedded Learning Fellows (ELFs):** The Embedded Learning Fellows (ELF) program offered through the Center for Academic Excellence (CAE) at Drew University focuses on using embedded learning fellows to provide more individualized attention and assistance during class activities and to motivate students' participation and engagement in a classroom setting. To learn more about this program, including requesting a Learning Fellow for your course please visit the "Faculty Resources" page on the CAE's website, or review the Center for Academic Excellence (CAE) Embedded Learning Fellows FAQs

- **NEW! Winter Break Academic Support:** The CAE now offers limited academic support during winter break. This offering is a result of a recent student academic support survey which asked students if they'd attend support sessions over the winter break. Please see Data Insights in section 4 to review usage.

2) Submit Tutor Nominations

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

3) Student Academic Support Survey Overview, Summary of Feedback & Data Insights

Overview of Survey:

- CLA and CSGS faculty were invited to complete the "Student Academic Support Survey" beginning April 5, 2021. As of May 7, the CAE received 73 responses from CLA faculty and 10 from CSGS faculty.

- The majority (54%) of respondents include tenured faculty, and notably 31% of the respondents are part-time (adjunct) faculty; all divisions are represented among the respondents.

- The survey queried faculty feedback on student academic needs and academic resources over the course of AY 2020-21 and anticipated academic support needs for the upcoming academic year.

- A more detailed overview of the survey results can be found here.

Summary of Feedback:

- Faculty identified *time management/organization and writing* as the top areas of concern with regard to academic skills. Consistent with this, they identified *missing/incomplete assignments* as the most problematic academic behavior; this also aligns with these data on Beacon alerts, with "missing assignments" as the top alert category. Concomitantly, respondents identified academic coaching and/or writing support as the most critical resources for students at the start of their academic experience at Drew in Fall 2021.

- These data also indicate that the majority of faculty surveyed support a hybrid approach to academic resources, with a return to onsite support as well as continued availability of online resources in the upcoming academic year.

- The survey results and Beacon alert data suggest the majority of faculty rely on Beacon alerts to communicate concerns about academic progress and to make referrals to CAE resources. In Spring 2021 alone, close to 800 Beacon alerts have been posted for nearly 400 unique CLA students; note that this level of alert submission is not atypical. However, the survey data indicate that Beacon is perceived by many to have a limited impact as an intervention; almost 30% of respondents report that Beacon was only *somewhat effective* or *not effective at all*.

Data Insights:

The following outlines some key takeaways and insights from the survey:

- In collaboration with the Dean's office and faculty, the CAE will take steps toward enhancing existing resources, including academic coaching and Writing Support.

- In collaboration with faculty, the CAE will develop new approaches including Embedded Learning Fellows and other forms of supplemental instruction.

- Case management is essential to the successful implementation of the Beacon system. While CAE staff, the CIRT team, and faculty advisers, and other support staff have worked diligently to monitor and intervene in response to Beacon alerts, it is clear that more resources are needed. The CAE is proposing the formation of a Beacon advisory group, inclusive of faculty, to assess and evaluate Beacon data and processes in an effort to improve outcomes.

4) CAE Data Overview: Fall 2020 and Spring 2021

Terminology Key:

- **Appointments:** Represent individual and small group online sessions with tutor submitted reports; 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.
- **Writing Specialists**: CLA students & three (3) CSGS students supporting writing across the University.

CLA Support: Online only FA20 - SP21

	FA20 Appointments / Unique Clients	**SP21 Appointments / Unique Clients**
Appointments Individual/Small Group	811 appts; 170 unique clients	733 appts; 159 unique clients
New clients	148	124

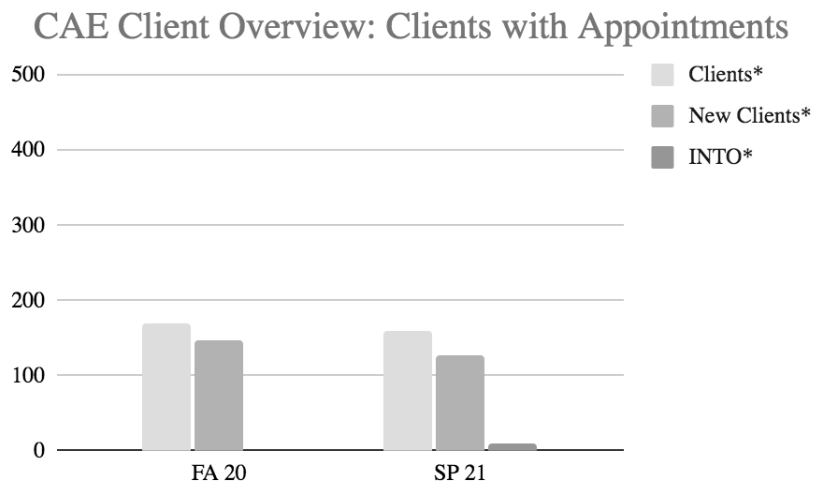
University Writing Center (UWC) Support FA20 - SP21

	FA20 Appointments / Unique Clients	**SP21 Appointments / Unique Clients**
Writing Specialists (includes Graduate/Theo Writing support)	306/78	241/ 72

Appointments by Focus: (Broad Category)

	FA20	SP21
Writing (CLA)	26%	25%
Academic Coaching	9%	8%
Arts/Humanities	7%	8%
FLanguage	3%	1%
Math/Science	41%	42%
CSGS/THEO	14%	16%

Clients: Registered Account Holders with Active Appointments:



Client Survey Feedback: FA20-SP21 Limited responses:
Client Feedback reveals strong satisfaction with the online tutoring sessions. Tutors utilized Zoom and the WCOnline platform for sessions. The shift to more positive responses for SP21 may be due to increased comfort and skill with the online environment on the part of clients as well as the CAE staff (tutors, writing specialists, student administrators, etc).

FA20: n = 382 ; SP21: n = 398

Percent Responses: **FA20; SP21**	Excellent	Good	Average	Fair	Poor
Overall, I rate my CAE ONLINE tutoring **session** as:	84%; 87%	12%; 9%	3%: 2%	0.8%; 0.5%	0.3%; 0.2%
Overall, I rate the CAE ONLINE tutoring **system via MyWCOnline** as:	69%; 82%	23%; 13%	7%; 4%	1%	0.5%; 0.3%

Percent Responses	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I will recommend the CAE ONLINE Tutoring to my friends.	79%; 84%	17%; 14%	4%; 3%		0.3%
I prefer using CAE ONLINE Tutoring over face-to-face tutoring at the CAE	28%; 46%	14%; 15%	37%; 34%	14%; 4%	11%: 1%

5) How to Contact Us

Support Resource	About the Support	Contact	How Faculty and Students Can Book Appointments with the CAE
Center for Academic Excellence (CAE)-Admin	The CAE network can help faculty connect to the support they need to achieve their classroom goals, including support with Beacon, an early alert system/platform for faculty to communicate concerns regarding a student's academic behaviors.	cae-admin@drew.edu	Email and ask about weekly drop in sessions for the fall and/or scheduling an individual appointment.
Subject Tutoring, Writing Support, Embedded Learning Fellows, others	Subject Tutoring, Writing Support, Embedded Learning Fellows, and others can help students meet their goals in the areas of math, science, humanities, research and writing for both in-person and online classes.	cae@drew.edu	Students can register and make an appointment for tutoring or writing support at WCOnline, the CAE's tutoring appointment system: www.drew.mywconline.com **Here are instructions for creating an account for tutoring that you can share with your students.**
Academic Coaching	Academic coaching provides assistance outside of content areas for students in need of organizational and study skills based assistance.	cae@drew.edu	Students can register and make an appointment for academic coaching at WCOnline, the CAE's tutoring appointment system: www.drew.mywconline.com
Accessibility Resources	Students with documented disabilities can consult with the Office Accessibility Resources (OAR) on academic resources available and accommodations.	dgiroux@drew.edu	Email is the best way to make an appointment. Registration Information is here.

Academic Integrity Committee: AY 2020-21 Report

Committee Members

Timothy Carter
Wyatt Evans
Kimani Fowlin
Ziyuan Meng
Rory Mulligan
Muriel Placet-Kouassi
Bernard Smith
Jim Supplee

Convenor: Judy Redling

Number of Reported Cases			
Fall	**2020**	**2019**	**2018**
	45	33	15
Spring	**2021**	**2020**	**2019**
	40	31	30
Total cases for AY	**82**	**64**	**45**

Number of Reported Cases		
	AY 20-21	**AY 19-20**
Plagiarism	36	35
Cheating	43	29
Duplicate Submission	3	
Total	82	64

Number of Reported Cases		
	AY 20-21	**AY 19-20**
Alternative Resolution	73	49
Hearing	9	15

Number of Reported Cases		
Class Standing	**AY 20-21**	**AY 19-20**
FY	31	22
SO	25	12
JR	20	21
SR	6	9

While we had been observing a rise in reported cases before the onset of the pandemic, the online learning environment has certainly contributed largely to the higher volume of cases reported this past academic year. That said, as we return to largely in-person learning in the fall, the challenges of cheating and plagiarism will persist.

In response, the CLA Dean's office will offer opportunities for new and continuing faculty to engage in dialogue and development strategies to help support academic integrity.

The Center for Academic Excellence also welcomes opportunities to partner (e.g. through writing workshops and embedded learning fellows) with faculty to help support learning in the classroom and engagement with resources so as to deter students from making the wrong choices with regard to integrity.

The Academic Integrity Committee will also be proposing some modifications to the Academic Integrity policy and Alternative Resolution procedures in an effort to improve outcomes.

Programmatic Assessment -

Reminders from the Academic Effectiveness and Assessment Committee

This year, we would like programs to complete their programmatic assessments by May 31st. Programs have self-selected to participate in one of three assessment protocols:

1. Programs participating in the **"Writing Pilot"** will assess student writing samples and report their findings.
2. Programs participating in the **"New Version" of the programmatic assessment** will target one or a few student learning outcomes and complete a streamlined and revised assessment report.
3. Programs participating in the **"Old Version" of the programmatic assessment** will use the old assessment report form from the 2018-19 academic year.

Documents related to each assessment protocol can be found in the Google Programmatic Assessment folder. All materials should be submitted using your department's sub-folder within the programmatic assessment folder.

As a reminder, here's the workflow for each protocol:

Writing Pilot:

1. Programs collect student writing samples and revision memos.
2. At least two program members assess writing samples using the assessment rubric we provided.
3. Programs enter their data into the data collection spreadsheet we provided (which is just an interactive version of the rubric).
4. Programs answer targeted questions about their findings in a short Google doc.

New Version of Programmatic Assessment:

1. Programs select one (or more) SLO to assess and explain their choice.
2. Programs collect and assess relevant student work.
3. Programs report on their process and findings using the revised programmatic assessment form.
4. Programs reflect on knowledge gained and identify strategic next steps.

Old Version of Programmatic Assessment:

1. Following the assessment form used in 2018-19, programs assess all SLOs.
2. Programs collect and assess student work relevant for each SLO.
3. Programs report on their process and findings using the form referenced above.
4. Programs reflect on knowledge gained and identify strategic next steps.

Publication Announcement for Vol. 14 of *The Drew Review*

(a digital version will soon be available via the library: bit.ly/3ue9xGF)

Table of Contents

Thanks to all faculty nominators and reviewers!

A call for submissions for next year's edition will be circulated in the fall…

Cover art by Evelyn Grace Viveiros

Digital Humanities Update – May 2021

Applications for Technology Fellow – Fall 2021 Semester

Faculty are invited to apply for a technology fellow to support digital projects in Fall 2021 courses. A technology fellow can work with your class for the full semester or for just a few weeks when a project is underway. Technology fellows will attend your classes and hold two hours of office hours per week for the semester or a specified number of hours for a shorter period. Additional information and application available at: http://www.drew.edu/digital-humanities/about-us/technology-fellows/ Applications are due by **Friday, May 21, 2021.**

Hypothesis for 2021-2022

The Mellon grant will support renewal of the Hypothesis license for the 2021-2022 academic year. If you are currently using Hypothesis and wish to continue to use it, it will be available through Moodle as before. If you would like to begin using Hypothesis and would like additional information, we can make recorded workshops available and will offer in-person workshops if there is interest. Contact Danielle Reay (dreay@drew.edu) or Wendy Kolmar (wkolmar@drew.edu) for access to recorded workshop or other information about Hypothesis.

Summer Workshops

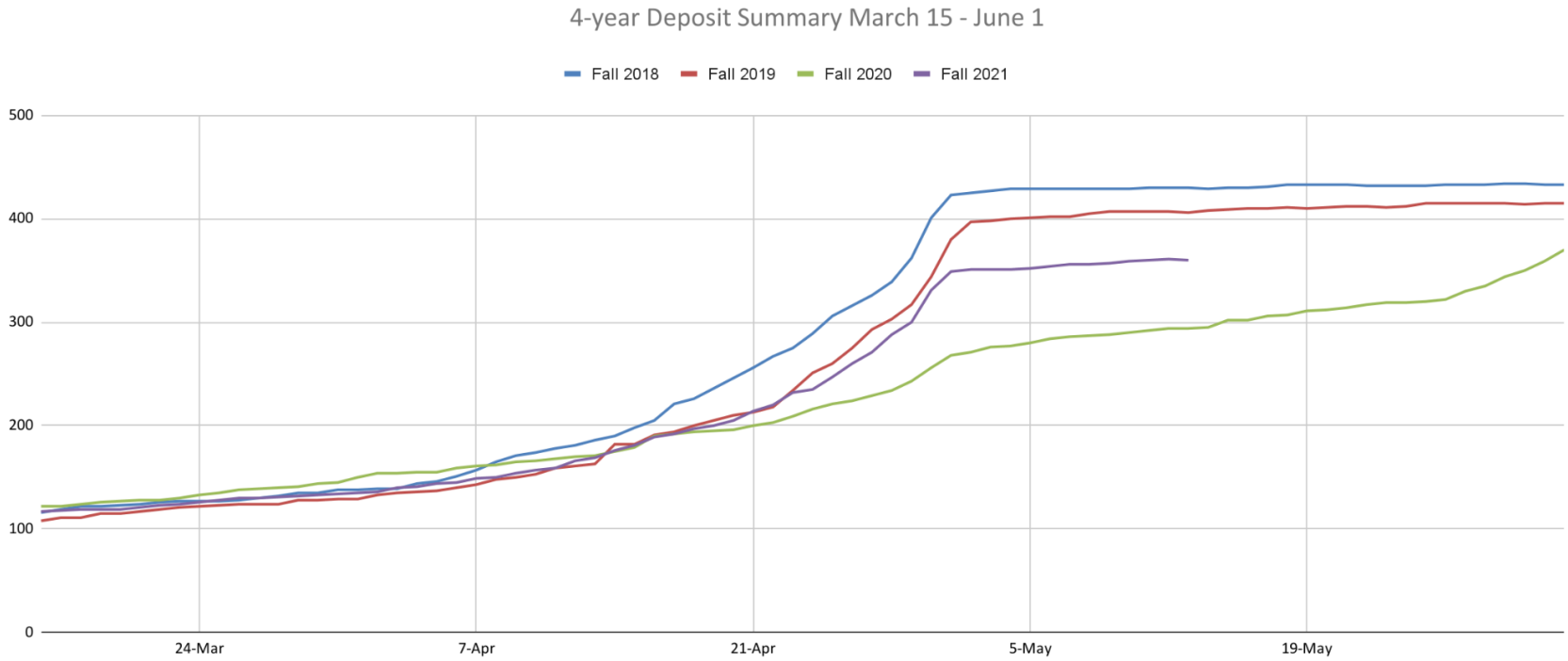
We will be offering a series of workshops between May 24 and June 18 as part of the Digital Humanities Summer Institute (DHSI). These workshops will be open to the entire faculty. A schedule will be available soon.

Leadership Change for Mellon Project

After the 2021 DHSI ends in June, Lee Arnold will be stepping down from the role of co-director of the Mellon DH project in order to take a sabbatical next year. John Muccigrosso, who served as co-director during the first year of the project, will be resuming that role for the 2021-22 academic year, the final year of the grant. We thank Lee for all of his work and contributions to the development of DH over the past several years.

Enrollment Management Arts and Sciences CLA Update 05/13/2021

Four-Year Deposit Trend



NOTES

- As of 5/13/2021, there are 360 deposits. The staff is working with around 20 additional students to obtain their deposits.
- The approved budget target number for first-year students is 370.
- The cycle was tracking nicely to 2019 until May 1, when it dipped below.
- As a reminder, the prior year cycle (green line) had a deposit deadline extension until June 1 and 2018 was the “tuition reset” year.
- In-person events for the next-cycle began April 18th.

Demographics Current Deposits

Year to Date Deposits	Female	Male	Students of Color	Non-SOC	Average GPA	Average SAT
2019	62.30%	37.70%	41.10%	58.90%	3.52	1208
2020	57.70%	42.30%	32.00%	68.00%	3.67	1207
2021	60.20%	39.80%	36.40%	63.60%	3.71	1249
At Census	Female	Male	Students of Color	Non-SOC	Average GPA	Average SAT
2019	62.50%	37.50%	41.30%	58.70%	3.51	1208
2020	57.10%	42.90%	39.10%	60.90%	3.66	1197
2021						

CLA Transfer Funnel

5/13/2021	Applications to date	Completed Applications to Date	Admissions Offered	Deposit to date	Census Total Apps Completed	Admission Offered	Census Total Enrolled	Yield
Fall 2018	175	144	103	36	211	150	63	42.00%
Fall 2019	116	98	80	32	157	121	55	45.45%
Fall 2020	115	99	78	19	169	131	50	38.17%
Fall 2021	106	83	75	26				