Faculty Senate Executive Committee
Thursday, April 14, 2016
9:00a.m. – 11:00a.m., Adelbert Hall, Toepfer Room

9:00 a.m.	Approval of Minutes from the March 16, 2016, Executive Committee Meeting, *attachment*	Roy Ritzmann
9:05 a.m.	President and Provost's Announcements	Barbara Snyder Bud Baeslack
9:10 a.m.	Chair's Announcements	Roy Ritzmann
9:15 a.m.	FSCUE Endorsement re Course Evaluation Data, *attachment*	Cheryl Killion
9:30 a.m.	Discussion re Diversity 360 Training	Marilyn Mobley Donna Davis-Reddix
9:45 a.m.	Proposal from Faculty Compensation Committee, *attachment*	Jerry Mahoney
10:05 a.m.	BS in Data Science and Analytics, *attachment*	Kenneth Loparo
10:10 a.m.	Minor in Sports Nutrition, *attachment*	Mary Beth Kavanagh
10:15 a.m.	Major in Chinese, *attachment*	Haomin Gong
10:20 a.m.	MA in Military Ethics, *attachment*	Cyrus Taylor
10:25 a.m.	Faculty Handbook/CWRU Policies	Libby Keefer David Carney
10:45 a.m.	Approval of 2016-2017 Standing Committee Chairs, *attachment*	Peter Harte
10:50 a.m.	Committee Member Report: LAW	Juscelino Colares
10:55 a.m.	Committee Member Report: CAS	Kimberly Emmons
11:00 a.m.	Approval of Faculty Senate Agenda, *attachment*	Roy Ritzmann

Faculty Senate Meeting
Thursday, April 28, 2016
3:30 p.m. – 5:30p.m., Adelbert Hall, Toepfer Room

3:30 p.m.	Approval of Minutes from the March 30, 2016, Faculty Senate Meeting, *attachment*	Roy Ritzmann
3:35 p.m.	President and Provost's Announcements	Barbara Snyder Bud Baeslack
3:40 p.m.	Chair's Announcements	Roy Ritzmann
3:45 p.m.	Report from Secretary of the Corporation	Arlishea Fulton
3:50 p.m.	Report from the Executive Committee	Peter Harte
3:55 p.m.	Minor in Sports Nutrition, *attachment*	Mary Beth Kavanagh
4:00 p.m.	BS in Data Science and Analytics, *attachment*	Kenneth Loparo
4:05 p.m.	MA in Military Ethics, *attachment*	Shannon French
4:10 p.m.	Major in Chinese, *attachment*	Haomin Gong
4:15 p.m.	FSCUE Endorsement re Course Evaluation Data, *attachment*	Cheryl Killion
4:25 p.m.	Proposal from Faculty Senate Compensation Committee, *attachment*	Gerald Mahoney
4:40 p.m.	Report from Faculty Senate Committee on University Libraries	Christine Cano
4:50 p.m.	Report from Faculty Senate Finance Committee	Scott Fine
5:10 p.m.	Update on Provost's Commission on the Undergraduate Experience	Kimberly Emmons
5:20 p.m.	Report from the Nominating Committee	?
5:25 p.m.	Passing of the Gavel	Roy Ritzmann

Faculty Senate Executive Committee
Minutes of the March 16, 2016 Meeting
Adelbert Hall, Room M2

Committee Members in Attendance
Barbara Snyder, President
Roy Ritzmann, CAS, chair
Peter Harte, SOM, vice chair
Juscelino Colares, LAW
Mary Quinn-Griffin, SON
Kimberly Emmons, CAS
Richard Zigmond, SOM
Gerald Mahoney, MSASS
Susan Case, WSOM

Others Present:
David Carney, chair, Committee on By-Laws
Paul Macdonald, chair, Committee on Graduate Studies
Lee Hoffer, chair, Committee on Research
Leena Palomo, chair, Committees on Minority Affairs and Women Faculty

Absent:
Bud Baeslack, Provost
Robert Savinell, CSE, past chair
Horst von Recum, CSE
Lisa Lang, SODM

Guests:
Suzanne Rivera, Vice President of Research
Tamara Randall
Edward Bolden
Michael Thomas
Amy Backus
Christopher Bailey
Shana Miskovsky
Jessica White
Greg Debeljak

Call to Order
Professor Roy Ritzmann, chair, Faculty Senate, called the meeting to order at 3:00 p.m.

Approval of Minutes
The minutes of the February 10, 2016 meeting of the Faculty Senate Executive Committee were reviewed and approved. *Attachment*

President's Announcements
The President had no announcements.

Provost's Announcements
The Provost was not in attendance.

Chair's Announcements
Prof. Ritzmann announced that the end-of-the-year Faculty Senate Budget meeting is scheduled for Tuesday, May 3rd at 1pm in the Tinkham Veale University Center. Additional information on this meeting will be sent out shortly.

Research Presentation
Professor Lee Hoffer presented the final results of the research survey conducted by the Faculty Senate Committee on Research and the Office of Research Administration in the spring of 2015. Prof. Hoffer had presented preliminary results to the Executive Committee in December. The survey objectives were to assess faculty satisfaction with research support services, identify priorities for improving research support and to collect open-ended responses. The desired outcomes were to identify specific areas for improvement, make recommendations and to establish a monitoring framework.

Results of the survey were categorized as follows: what CWRU does well, points without a consensus, and what CWRU can improve. In response to what CWRU does well, collaboration, departmental research staff, and perceived flexibility were cited most often. With regard to what CWRU doesn't do well, university staff, internal funding, and grant-writing support were cited most often.

Prof. Hoffer said that the survey will be conducted again in the fall and on regular intervals in the future. This type of survey is challenging because of the diverse population of faculty at CWRU. He plans to improve the survey questions and work on ways to make the survey relevant to researchers not in STEM areas. These changes, and better communication with faculty should improve the response rate considerably. The survey results may be used to monitor faculty satisfaction over time. Sue Rivera said that the survey results will help inform the university's strategic research implementation committee. Results of the survey will also be posted on the ORA website. *Attachment*

Graduate Certificate in Maternal and Child Nutrition
Professor Tamara Randall presented the graduate Certificate in Maternal and Child Nutrition from the Department of Nutrition in the School of Medicine. This certificate is intended to formalize the current specialty in maternal and child nutrition and is consistent with the department's strategic planning goal of establishing clinical and educational excellence in the

areas of maternal and child health. The certificate consists of 12 credit hours that will be satisfied with courses that are currently being offered. Students in the MS/Public Health Nutrition Dietetic internship, in the MS/Coordinated Dietetic Internship, non-degree students (who have earned a minimum of a Bachelor's degree) and others would be eligible for this certificate. The Executive Committee voted to include the graduate certificate on the agenda for the Faculty Senate meeting. *Attachment*

Electronic Voting Technology for the Toepfer Room

Edward Bolden and Michael Thomas from ITS demonstrated the iClicker remote voting system that can be used to register attendance and for electronic voting in Faculty Senate meetings. Three other options had been considered but this one best fit the Senate's needs. The Committee agreed that the system would be useful and recommended that the university make it available by the fall if possible.

Proposed Revisions to SON By-Laws

A discussion of proposed revisions to the SON By-Laws was postponed until a later meeting.

Proposed Revisions to LAW By-Laws

A discussion of proposed revisions to the LAW By-Laws was postponed until a later meeting.

Revisions to Amendment Provision of the Faculty Constitution

Professor David Carney said that revisions to the amendment provision of the Faculty Constitution had been presented at the March Faculty Senate meeting, but required further explanation. The Executive Committee voted to include these revisions on the agenda for the Faculty Senate meeting. *Attachment*

Outcome Assessment

Due to insufficient time, the presentation by Susan Perry on outcome assessment was cancelled. She will make a presentation to the Faculty Senate.

Concussions- Policy and Protocol for Student Athletes

Amy Backus, Athletic Director, introduced Christopher Bailey (Director of the UH Sports Medicine Concussion Center, Director, Concussion Program, Neurological Institute Univ. Hospitals Case Medical Center), Shana Miskovsky (team physician), Jessica White (team trainer) and Greg Debeljak (football coach), all of whom had joined her for the discussion on the risk of concussion in athletics. Amy Backus reported that the NCAA Division III By-Laws require all active members to have concussion management plans in place. Member institutions must require student athletes to be educated about the signs and symptoms of concussions. A student who exhibits signs and symptoms of a concussion must be removed from play and be examined by a medical staff member with experience in the treatment of concussions. The student is not to return to play until given clearance to do so by a physician. Information for student-athletes at CWRU is contained within the Student-Athlete Handbook and students-athletes must acknowledge that they have reviewed the information. Students are also

required to watch a video about concussions. The CWRU Athletic Department has established football specific guidelines for practice.

At this point in the academic year, 16 concussions have been reported out of 526 student-athletes. 19 non-athlete student concussions have been reported during this same time period. Baseline testing for student-athletes participating in high-impact sports is required at CWRU. Baseline testing can help confirm a suspected concussion and can also be used to determine whether a student has healed properly.

Christopher Bailey indicated that it is critical for all individuals who have experienced a concussion to recover completely before resuming normal activities. This includes avoiding many of the assignments that students normally work on. He encouraged faculty to support students during these times by following physician recommendations and allowing additional time for completion of assignments after the recovery period.

The Executive Committee considered whether to establish an ad hoc committee of faculty and representatives from the Athletic Department to discuss ways for faculty to assist students who have suffered concussions. The Committee decided that an ad hoc committee wouldn't be necessary but that the Athletic Department should communicate with faculty on a regular basis about these issues. The Committee asked Amy Backus to provide the Senate with more information on ways faculty can help their students. *Attachment*

Approval of Faculty Senate Meeting Agenda

The Executive Committee approved the agenda for the March 30th Faculty Senate meeting. *Attachment*

The meeting was adjourned at 5:00pm.

April 5, 2016 FSCUE Meeting

Endorsement

FSCUE endorses giving CWRU undergraduate students access to course evaluation data in bulk on the condition that access to data, analyses and products be limited to the CWRU community through the university's single sign-on.

Faculty Senate Compensation Committee Report On CWRU Faculty Salaries

Approved by the Faculty Compensation Committee, March 22, 2016

For the past three years the Faculty Senate Compensation Committee has had the opportunity to review reports comparing CWRU faculty salaries to AAU faculty salaries which were prepared by the Institutional Research Office. These analyses had been authorized by the CWRU administration because CWRU is a member of AAU and competes with AAU institutions both for faculty and students. They compared CWRU faculty salaries to faculty salaries from institutions that participated in the AAU salary exchange for the years of 2012–13, 2013–14, and 2014–15. Beginning in 2013–14, salaries were reported by tenure status and in most instances included base salaries only.

While comparative data for the School of Medicine and Dentistry have been reviewed previously by the Faculty Compensation Committee, concern has been expressed that these data may underestimate the relative compensation of faculty in these units because of the low number of AAU Medical and Dental schools reporting salary data. Because of this, comparison data from these two units are **not** presented in this report. Nonetheless, members of the Faculty Compensation Committee maintain that the proposals described in this report are university wide recommendations that are consistent with current status and aspirations of all academic units at Case Western Reserve University.

Overall, results from the CWRU/AAU faculty salaries comparisons have not changed substantially across the three years in which they have been reported. For all three years, CWRUs salaries both for tenured and non-tenure-track faculty were substantially lower than the average faculty salaries reported for AAU institutions. To illustrate this, a summary of the data for the 2014 – 15 academic year is presented on Table 1 for tenured/tenured-track faculty, and on Table 2 for non-tenured track faculty.

As indicated on Table 1, faculty salaries for two of six CWRU academic units were **at or above** AAU averages (MSASS and Nursing). However, across the other three academic units, which include 88 percent of the faculty whose salary data were used in this report, average salaries across faculty ranks were below the AAU 15th percentile. The most alarming discrepancies were for faculty from CAS (Math and Natural Sciences) and Engineering whose average salaries were at the AAU 5th percentile

As summarized on Table 2, compensation was somewhat better for non-tenured track faculty. Two academic units reported salaries that were above AAU averages and two other units reported salaries that were within the 40th percentile range. Still, nearly 40% of non-tenured faculty were receiving salaries that were below the AAU 30th percentile.

The Faculty Compensation Committee recognizes that there can be legitimate debate as to whether the AAU institutions that participated in the faculty exchange represent an equitable comparison group for each of the academic units at CWRU. Nonetheless, it is important to note that the national rankings for CWRU are in the mid-range of the AAU institutions that participated in the salary exchange. In addition, tuition rates at CWRU are also in the midrange of the private universities that participated in this study.

The faculty compensation committee also observed that even though the majority of faculty at CWRU receive salaries that are below the AAU 25th percentile, there are substantial discrepancies across academic units within CWRU. These range from a high of the 76th percentile at MSASS to lows that are at or below the 15th percentile in Arts and Sciences, Engineering and Management. Furthermore, two of the highest nationally ranked academic units at CWRU (MSASS and Nursing) compensate tenured/tenure-track faculty at, or above, AAU averages and neither of these schools are currently experiencing budgetary crises.

Discussion Points:

1. The Compensation Committee maintains that there is a substantial discrepancy between the vision and aspirations of CWRU with the average salaries paid to faculty. Although CWRU is currently ranked 37th among national universities, and aspires to even higher national rankings, faculty salaries are substantially lower than salaries paid at comparable prestigious universities.
2. Faculty recruitment, retention and morale are associated partly with compensation. Members of the Compensation Committee are familiar with faculty who have left CWRU partly because of opportunities to obtain higher salaries at other universities. In addition, there are a number of candidates who have turned down faculty offers at CWRU at least partly due to compensation issues.
3. There are no clear policies or targets for CWRU faculty salaries with the exception of increases associated with promotion and tenure. Salaries are established at the school/college level at the discretion of the deans. Insofar as faculty salaries are tied to the financial well being of academic units, there is little likelihood that academic units experiencing budgetary shortfalls will develop and implement plans to achieve parity in faculty compensation.
4. Across academic units, the highest salaries are paid to senior faculty. In the 2014-15 academic year, 19% of CWRU tenured/tenure-track faculty were 65 years and older and nearly 1/2 of these faculty were 70 and older. The average salaries for senior faculty are 30% higher than for tenured/tenure-track faculty who are younger than 65 years. CWRU does not currently offer a university wide retirement incentive program that could free up salaries being paid to this group of faculty. In addition, while options for reduced appointments are described in the faculty handbook, these options are neither incentivized nor marketed by the University. Reduced appointments

have been reported to be interpreted differently across academic units with regard to workload, sometimes in ways that discourage faculty from choosing this option.

5. The Faculty Compensation Committee is not aware of any long term plans by the CWRU administration for addressing faculty compensation. This is in marked contrast to ambitious and visionary University plans for: campus building and development; instructional technology/infrastructure; academic strategic plans; and student recruitment.

Proposal

The Faculty Compensation Committee maintains that the CWRU/AAU faculty salary comparisons provide compelling evidence of a substantial gap between the salaries being paid to faculty at CWRU with the salaries paid to faculty at comparable universities. CWRU is unlikely to sustain or improve its prestige and national rankings without compensating faculty at levels that are at least commensurate with salaries being paid at peer institutions. As a result, there is an urgent need for the University to take bold steps to address this issue. We propose that the following steps be taken:

1. Each academic unit should disseminate reports to the faculty annually in which faculty salaries are benchmarked to AAU Institutions. Peer institutions could be a subset of AAU institutions that are similar to CWRU.
2. CWRU central administration should establish a university wide goal of compensating faculty at a level that is at, or above, the AAU 50th percentile.
3. In collaboration with the deans, central administration should develop a five-year plan for achieving parity in faculty compensation with peer institutions. At a minimum this plan should include:
    - Increased endowments for faculty salaries
    - Incentive programs for retirement and/or reduced appointments for senior faculty
    - Commitment to compensate all new faculty hires at a level which, at a minimum, is comparable to the 50th percentile of AAU universities.
4. Faculty compensation should no longer be tethered solely to the budgetary status of the individual academic units. The University should take an active role in subsidizing academic units to achieve faculty salary parity.

Table 1. CWRU/AAU Tenure/Tenure Track Salary Comparison

Academic Unit	N	Average %tile Across Ranks	%tile Assistant Professor
CAS (CAS (Arts, Humanities and Social Sciences)	130	12.5	7
CAS (Math and Natural Sciences)	88	5.3	2
School of Engineering	113	5.5	9
School of Management	49	13.0	15
School of Nursing	24	50.0	46
School of Law	21	46.0	No Data
School of Applied Social Sciences	17	76.0	No Data

Table 2. CWRU/AAU Non-Tenure Track Salary Comparison

Academic Unit	N	Average %tile Across Ranks
CAS (CAS (Arts, Humanities and Social Sciences)	77	19.0
CAS (Math and Natural Sciences)	84	45.8
School of Engineering	8	55.0
School of Management	11	28.0
School of Nursing	62	41.0
School of Law	9	11.0
School of Applied Social Sciences	4	69.0

AAU Salary Comparisons

Mrch 22, 2016

CWRU Institutional Research Office

- Compared CWRU to AAU faculty salaries
  - 2014-15
  - 2013-14
  - 2012-13
- Comparisons were made to show the percentile value for CWRU's average salaries among AAU institutions participating in the salary exchange.
- Starting with 2013-14, salaries are reported by tenure status, and in most instances include base salary only.
  - CWRU salaries include incentive pay, where applicable.
  - In most cases AAU salaries are base only, but a small number of institutions included academic year supplements.
  - Medicine and Dental Medicine excluded because of small number of institutions in comparison groups.

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School of Nursing	62	41.0
School of Law	9	11.0
School of Applied Social Sciences	4	69.0

Observations

- CWRU authorized CWRU/AAU salary comparisons because CWRU is a member of AAU and competes with AAU universities for faculty and students,
- Approximately 85% of CWRU tenure/tenured track faculty receive salaries that are at, or below, the 15th percentile of AAU comparison schools
- Academic units with low salaries are also compensating assistant professors at a rate that is at or below the 15th percentile of AAU comparison schools
- Approximately 40% of non-tenured track faculty receive salaries that are at, or below, the 30th percentile of AAU comparison schools.
- The general pattern of CWRU/AAU salary comparisons has not changed substantially over three years.
- Preliminary AAU comparative salary data for the School of Medicine suggests that numerous faculty may also receive salaries that are well below AAU averages
- Despite AAU/CWRU salary discrepancies
  - CWRU national rankings are at the mid level of AAU rankings
  - CWRU tuition is in the middle range of AAU private universities

Discussion Points

- There is no transparency regarding CWRU faculty salaries
- Salaries are established at the school/college level.
  - Highly associated with the budgetary status of administrative units.
- There are substantial discrepancies across CWRU schools and colleges in AAU comparison salaries ranging from a high of 76 %tile (MSASS) to lows that are at, or below, the 15thth %tile (CAS, Engineering, Management)
  - Two of the highest nationally ranked academic units within CWRU (MSASS and Nursing) compensate tenure/tenure track faculty at, or above, AAU averages.
  - CWRU Schools/Colleges with highest comparative salaries are not currently experiencing financial deficits

Discussion Points

- There is a discrepancy between the vision and aspirations of CWRU with the average salaries paid to faculty.
- Faculty recruitment, retention and morale are associated with faculty compensation.
- CWRU is unlikely to sustain or improve its prestige and national rankings without compensating faculty at a level commensurate with its peer institutions.
- There are no clear policies or targets for CWRU salaries with the exception of increases associated with promotion and tenure.
- Across academic units, highest average salaries are paid to senior faculty
  - 19% of tenured/tenure track faculty are 65 and older (2014-15)
    - 8.5% of tenured/tenure track faculty are 70 and older
  - Average salaries for senior faculty is 30% higher than for tenured/tenure track faculty younger than 65.
  - CWRU does not currently offer retirement incentive programs
  - Options for tenured faculty to reduce to part-time appointments are described in the faculty handbook. These:
    - appear to be interpreted differently across academic units with regard to workload, sometimes in ways that discourage reduced appointments
    - are neither incentivized nor marketed by the university
- CWRU ADMINISTRATION HAS NO LONG TERM PLANS FOR ADDRESSING FACULTY COMPENSATION!!!
  - This is in marked contrast to ambitious and visionary plans for:
    - Campus building/development
    - Instructional Technology/Infrastructure
    - Academic strategic plans
    - Student recruitment

Resolution/Proposal

- Each academic unit should produce and publish annual reports in which faculty salaries are benchmarked to AAU peer institutions.
  - Peer institutions could be a subset of AAU institutions that are similar to CWRU
- Central administration should establish a university wide goal of compensating faculty at a level that is at, or above, the AAU 50th %tile.
- In collaboration with the deans, central administration should develop a 5 year plan for addressing faculty compensation.
  - At a minimum this plan should include:
    - Increased endowments for faculty salaries
    - Incentive programs for retirement and/or reduced appointments for senior faculty
    - Immediate corrective actions with newly hired faculty.
- Faculty compensation should no longer be tethered solely to the budgetary status of individual colleges or schools.

Average Faculty Salaries by School and Rank, AY 2014-15

Case Western Reserve University Compared to the Association of American Universities

Report for the Faculty Senate Compensation Committee

CONFIDENTIAL: Subject to AAU Data Exchange Sharing Policies

- The table shows both **percentile and actual values** for CWRU's average salaries among AAU institutions participating in the salary exchange. *The longer the blue bar, the higher the average salary at CWRU in comparison to AAU peers.*
- CWRU salaries are base only. AAU salaries in most cases are base only, but a small number of institutions include academic year supplements in reporting salaries.
- Salaries are reported as nine-month equivalents; 12-month salaries are converted using the AAUP conversion factor of 9/11.
- AAU data can only be shared if there are at least five peer schools and 15 faculty at a given rank. There were too few institutions for comparisons at some ranks, particularly for non-tenure-track faculty.
- CWRU averages are not provided if there are fewer than four faculty at a given rank.
- Comparisons in Medicine and Dental Medicine are excluded because of the relatively small number of institutions in the comparison group.

TENURED and TENURE-TRACK FACULTY

	CWRU			AAU						
	n Fac	CWRU Average Salary	Percentile Rank among AAU	n Insts	AAU Average Salary	Minimum	25th Percentile	Median	75th Percentile	Maximum
CAS: Arts, Humanities, and Social Sciences										
Professor	51	110,833	15%	55	144,063	103,210	119,770	134,836	155,497	211,543
Associate	50	77,708	13%	54	88,804	68,832	81,491	88,471	100,541	125,267
Assistant	29	63,424	7%	55	74,881	58,793	70,675	74,190	81,886	95,318
CAS: Math and Natural Sciences										
Professor	47	115,116	5%	55	150,688	114,161	129,378	145,728	158,856	218,428
Associate	17	85,409	11%	54	96,270	78,988	89,191	96,234	103,470	142,398
Assistant	24	74,239	2%	55	87,111	72,481	81,551	85,944	91,130	120,740
Case School of Engineering										
Professor	65	137,073	2%	55	161,575	136,925	150,086	158,516	174,633	227,820
Associate	29	102,803	11%	53	111,592	96,101	105,732	112,031	117,736	144,886
Assistant	19	88,509	9%	55	96,901	83,724	92,101	97,694	101,848	118,039

	CWRU			AAU						
	n Fac	CWRU Average Salary	Percentile Rank among AAU	n Insts	AAU Average Salary	Minimum	25th Percentile	Median	75th Percentile	Maximum
School of Law										
Professor	21	193,511	46%	35	231,034	156,650	180,209	205,239	252,822	350,694
Associate	2			26	143,145	112,410	131,456	142,040	163,840	223,500
Assistant	3			21	150,635	97,742	117,188	145,145	170,560	223,490
Mandel School of Applied Social Sciences										
Professor	10	157,487	76%	25	149,975	86,600	113,526	139,383	153,093	204,556
Associate	7	102,705	76%	25	96,848	70,505	83,292	90,342	99,415	123,531
Assistant	2			25	79,392	65,881	71,200	75,796	84,220	95,564
Weatherhead School of Management										
Professor	26	185,737	15%	55	247,833	159,880	199,527	227,053	268,217	339,506
Associate	12	139,196	8%	53	177,376	119,527	153,644	171,654	192,118	244,327
Assistant	11	140,820	15%	55	160,954	117,825	145,490	157,932	169,350	190,673
School of Nursing										
Professor	8	139,435	55%	22	143,324	105,528	116,790	133,782	154,874	205,531
Associate	8	98,152	52%	23	100,476	79,815	88,961	97,719	108,329	127,897
Assistant	8	79,201	43%	23	82,329	70,564	76,106	80,729	85,804	101,714

NON-TENURE-TRACK FACULTY

	CWRU			AAU						
	n Fac	Average Salary	Percentile Rank among AAU	n Insts	Average Salary	Minimum	25th Percentile	Median	75th Percentile	Maximum
CAS: Arts, Humanities, and Social Sciences										
Instructor	15	53,382	75%	12	51,008	28,857	41,423	45,290	52,022	80,000
Lecturer	52	41,206	3%	32	53,251	39,359	47,421	53,279	59,566	76,354
CAS: Math and Natural Sciences										
Instructor	15	59,729	77%	13	54,306	35,726	48,600	54,971	58,958	80,629
Lecturer	12	48,098	7%	30	59,333	30,000	54,108	58,765	70,018	87,168

	CWRU			AAU						
	n Fac	CWRU Average Salary	Percentile Rank among AAU	n Insts	AAU Average Salary	Minimum	25th Percentile	Median	75th Percentile	Maximum
Case School of Engineering										
Associate	4	97,644	67%	18	93,441	69,872	88,440	92,839	101,268	118,113
Assistant	4	72,062	43%	21	70,428	54,779	66,904	76,938	83,299	97,470
School of Law										
Professor	9	96,923	11%	16	154,965	89,484	113,986	119,922	159,082	239,463
Assistant	3			12	83,974	55,432	64,483	75,191	87,408	162,550
Instructor	4	93,441		5						
Mandel School of Applied Social Sciences										
Assistant	4	71,924	69%	13	60,986	50,679	55,915	65,065	72,565	88,836
Instructor	3			4						
Weatherhead School of Management										
Professor	4	126,418	30%	25	184,732	61,672	120,240	133,747	192,350	266,772
Associate	7	101,858	27%	11	123,125	89,672	102,534	118,062	141,867	199,784
Assistant	1			19	110,681	75,277	95,735	110,314	135,409	162,170
School of Nursing										
Associate	9	87,769	70%	15	88,625	63,329	76,328	87,735	92,404	114,964
Assistant	14	71,514	45%	16	73,953	62,304	65,392	74,429	79,356	89,467
Instructor	39	60,624	33%	12	65,225	53,389	62,424	67,709	74,161	87,003

Office of Planning and Institutional Research
March 7, 2016

CWRU Action Form for Majors/Minors/Programs/Sequences/Degrees Docket # 15-CSE-PAF-1106
(instructions on back)

College/School: Case School of Engineering
Department: EECS

PROPOSED:
_____ major
_____ minor
__X_ program
_____ sequence
_____ degree

TITLE: Data Sciences Curriculum

EFFECTIVE: Fall _____ (semester) 2015 _____ (year)

DESCRIPTION:

This proposes a new major in Data Sciences to be housed in the Department of Electrical Engineering and Computer Science. The attached documents detail the curriculum and new course additions, which will be filed with separate CAFs.

Is this major/minor/program/sequence/degree:
__X_ new
_____ modification
_____ replacement

If modification or replacement please elaborate:

Does this change in major/minor/program/sequence/degree involve other departments? _____Yes _____No

If yes, which departments?

Contact person/committee: Soumya Ray

SIGNATURES:
DATE
Department Curriculum Chair(s)/Program Directors: 6/15/15
Department Chair: See attached MATH/STATs Chair email approval 6/12/15 6/15/15
College/School Curriculum Committee Chair: 6/18/15
College/School Dean(s): See attached Assoc Dean Buchner's email approval 6/19/15 10/20/15
UUF Curriculum Committee Chair:

File copy sent to: _____Registrar _____Office of Undergraduate Studies/Graduate Studies
_____Other:

Requirements for BS in Data Science and Analytics

General Education/Engineering Core Requirements
First Seminar
2 University Seminars
Department Seminar (ENGL/ENGR 398)
Capstone (DSCI 399) (included below as part of the major)
2 semesters of PHED

Humanities/Social Science Electives to total 12 credit-hours of 3- or 4-credit-hour courses
MATH 121, 122, 223, 224
CHEM 111
PHYS 121, 122
EECS 132 (included below as part of the major)

[Note: This is the Engineering Core without ENGR 145, 200, 210, 225]

Requirements for Major
EECS 132
DSCI 133, 234, 341, 342, 343, 344, 345, 398, 399
EECS 302, 340, 393
MATH 201
Probability/Statistics Elective
Computer and Data Security Elective
3 DSCI Technical Electives (Choice of one of two foci)
3 Technical Electives

Open Electives
To reach a total of 125 credit-hours to complete the degree program

From: Mark De Guire [mailto:mrd2@case.edu]
Sent: Monday, October 19, 2015 3:25 PM
To: Jeffrey Duerk
Cc: Ann Boughner; Kathleen Ballou; Aaron Jennings; Chung-Chiun Liu; Horst von Recum; Joao Maia; Rigoberto Advincula; Sree Sreenath; Wyatt Newman; Xin Yu; Yasuhiro Kamotani; Marc Buchner; Kenneth Loparo
Subject: Approved by CSE faculty: new undergraduate major program in Data Science and Analytics

Dear Jeff,

The faculty of the Case School of Engineering approved, by a vote of 52 to 1, the proposed new major program in Data Science and Analytics.

The total number of votes cast (52 of 112 faculty) exceeds the number required for a quorum (40% of voting faculty) in the Case School of Engineering, and (as you know) followed a duly called special faculty meeting at which the proposal was discussed at length.

I believe page 3 of the attached proposal needs your signature. The proposal then would be forwarded to the Secretary of the University Faculty, Rebecca Weiss, and Dean of Undergraduate Studies Jeffrey Wolfowitz, to be taken by the Faculty Senate Committee on Undergraduate Studies.

Thanks to Ann Boughner for organizing and overseeing the voting, to Heidi Fanta for helping to organize the special faculty meeting, and to you and Marc Buchner for keeping this process moving ahead.

What is normally done to inform the faculty of the outcome — an announcement from your office, from the Executive Committee, or some other way?

Best regards,
Mark

Mark De Guire
Chair, CSE Executive Committee, 2015–2016

---------- Forwarded message ----------
From: **Ann Boughner** <aeb3@case.edu>
Date: Fri, Oct 16, 2015 at 10:25 AM
Subject: RE: IMPORTANT VOTE NEEDED on the proposed new undergraduate major porgram in Data Science and Analytics
To: Mark De Guire <mrd2@case.edu>
Cc: Marc Buchner <marc.buchner@case.edu>

FYI—voting results for Data Science & Analytics program:

- 52 votes total
- 51 yes votes
- 1 no vote

Ann Elizabeth Boughner
aeb3@case.edu
Director of Human Resources & Leadership Development
Case School of Engineering
Case Western Reserve University, Nord Hall #520
10900 Euclid Avenue
Cleveland, OH 44106-7220
Voice: 216-368-5922
Fax: 216-368-6939

CASE SCHOOL
OF ENGINEERING
CASE WESTERN RESERVE
UNIVERSITY

Jeffrey L. Duerk, Ph.D.
Dean, Case School of Engineering
Leonard Case Professor

June 22, 2015

As dean of the Case School of Engineering, I strongly support the new major in Data Sciences to be housed in the Department of Electrical Engineering and Computer Science (EECS). In collaboration with the Business-Higher Education Forum, and with the leadership of President Snyder, CWRU discovered there is a great need for data science experts emerging from university at the completion of their undergraduate (UG) education.

By developing a distinctive UG program in Data Science, we will provide the data science and analytics training needed for undergraduate students in the ongoing era known as "Big Data". Our EECS program will develop the skills and provide instruction needed in handling large amounts of data and transform our thinking from a collection of vast amounts of data into one that focusses on the data's conversion to actionable information; by developing this with the BHEF and industry partners, our degree program will have a unique focus on real-world data and real-world applications.

This major will also be one of the first undergraduate programs nationwide, which puts CWRU in the forefront with its unique, rigorous curriculum. The curriculum includes mathematical modeling, informatics, data analytics, visual analytics and project-based applications, all being elements of the future emerging field of data science.

With an undergraduate minor already in place, CWRU now is responding to a strong and aggressive expansion in research and education, along with market demand, for students trained in computer science, mathematical modeling, statistical analysis and other areas related to Big Data. I strongly endorse our plan to create this new undergraduate degree program in Data Sciences.

Warm regards,

Jeffrey L. Duerk, Ph.D.
Dean
Leonard Case Professor

Case School of Engineering, 10900 Euclid Avenue, Cleveland, Ohio 44106-7207
Visitors and Deliveries: 500 Nord Hall
Phone 216.368.3227 E-mail duerk@case.edu
http://engineering.case.edu

ASSOC. DEAN BUCHNER'S EMAIL APPROVAL

From: Marc Buchner [mailto:mxb11@case.edu]
Sent: Friday, June 19, 2015 9:57 AM
To: Kathleen Ballou
Cc: Ken Loparo
Subject: Re: DSCI PAF signature needed

Hi Kathleen (and Ken),

I approve of the DSCI curriculum as put forward by the EECS department and voted upon by the CSE UG committee.

However, please attach Ken's rationale for the degree program and a letter of support from Jeff Duerk as we were recommended to do by Jeff Wolcowitz. I have Ken's rationale somewhere in my email but you should be able to get it directly from him.

I can write the Dean's letter but I won't be able to get to it until later today ... probably this evening at the earliest.

Thanks,
Marc

Sent from my iPhone

On Jun 19, 2015, at 9:27 AM, Kathleen Ballou <kad4@case.edu> wrote:

Marc,

Attached is the DSCI PAF (15-CSE-PAF-1106) that has been approved by the CSE UG Committee, which needs your signature. Please review and send an email with your approval.

Thanks,

Kathleen A. Ballou
Project Manager & Assistant to the Associate Dean
Case School of Engineering

<Data Sci 15-CSE-PAF-1106 signature needed 6.19.15.pdf>

Rationale for New Data Science Program

In July 2013, President Snyder was announced as the new chair of the Business and Higher Education Forum (BHEF). In her role as BHEF chair, she announced in February 2014 plans for CWRU to develop a distinctive UG program in Data Science (www.bhef.com/news-events/releases/bhef-chair-and-case-western-reserve-university-president-barbara-r-snyder). The majority of Data Science programs are at the MS level and above, and the demand for data scientists is expected to grow substantially in the next 5-10 years. According to a report by the McKinsey Global Institute, the United States alone will need to increase the number of graduates with skills in handling large amounts of data by as much as 60 percent, and it is estimated that there will be half a million jobs that need to be filled in the next five years.

Fall Semester		Spring Semester	
Freshman Year			
Class-Laboratory-Credit Hours		Class-Laboratory-Credit Hours	
SAGES First Year Seminar	4-0-4	SAGES University Seminar	3-0-3
CHEM 111 Chemistry I	4-0-4	PHYS 121 Physics I: Mechanics	4-0-4
MATH 121 Calculus I	4-0-4	MATH 122 Calculus II	4-0-4
EECS 132 Introduction to Java	3-2-3	DSCI 133 Introduction to Data Science	3-0-3
PHED 101 Physical Education	0-3-0	PHED 102 Physical Education	0-3-0
		Open Elective	3-0-3
Total:	15-2-15	Total:	17-3-17
Sophomore Year			
SAGES University Seminar	3-0-3	DSCI 341 Introduction to Databases	3-0-3
PHYS 122 Physics II: Electricity & Magnetism	4-0-4	MATH 224 Differential Equations	3-0-3
MATH 223 Calculus III	3-0-3	EECS 340 Algorithms	3-0-3
DSCI 234 Structured/Unstructured Data	3-0-3	HM/SS Elective	3-0-3
EECS 302 Discrete Mathematics	3-0-3	Probability/Statistics Elective[1]	3-0-3
Total:	16-0-16	Total:	15-0-15
Junior Year			
Class-Laboratory-Credit Hours		Class-Laboratory-Credit Hours	
DSCI 342 Introduction to Data Science Systems	3-0-3	ENGL/ENGR 398 Professional Communication	3-0-3
EECS 393 Software Engineering	3-0-3	DSCI 344 Scalable Parallel Data Analysis	3-0-3
HM/SS Elective	3-0-3	Computer and Data Security Elective[2]	3-0-3
DSCI 343 Introduction to Data Analysis	3-0-3	DSCI 345 Files, Indexes and Access Structures for Big Data	3-2-3
MATH 201 Linear Algebra	3-0-3	Technical Elective	3-0-3
Total:	15-0-15	Total:	15-2-15
Senior Year			
Class-Laboratory-Credit Hours		Class-Laboratory-Credit Hours	
Technical Elective	3-0-3	HM/SS Elective	3-0-3
DSCI Technical Elective[3]	3-0-3	DSCI Technical Elective[3]	3-0-3
DSCI 398 Senior Project I	1-6-4	DSCI 399 Senior Project II	0-8-4
DSCI Technical elective[3]	3-0-3	Technical Elective[4]	3-0-3
HM/SS Elective	3-0-3	Open Elective	3-0-3
Total:	13-6-16	Total:	12-8-16

GRADUATION REQUIREMENT: 125 hours total, green=new courses, blue=CAFs need to be filed to modify prerequisites to include DSCI 234

1. **Probability and statistics electives**: MATH 380, STAT 325

2. **Computer and Data Security electives**: EECS 444, MATH 408, new course to be developed

DSCI 398/399: Capstone project, 8 credits, possibly in conjunction with a co-op

3. DSCI Technical Electives in Signal Processing:

EECS 246: Signals and Systems (Required)

EECS 313: Signal Processing (Required)

STAT 322: Statistics for Signal Processing (Required)

Technical Electives: electives from minor list, EECS courses

3. DSCI Tech Electives: Systems and Analytics

Systems: (EECS courses needing EECS 233 will need to adjust prerequisites to include DSCI 234)

EECS 325/425: Computer Networks, other networks courses

EECS 338: Operating Systems and Concurrent Programming

Cloud Computing (currently 600)

Analytics:

DSCI 390: Machine Learning for Big Data

DSCI 391: Data Mining for Big Data

EECS 339: Web Data Mining

EECS 346: Engineering Optimization

EECS 440: Machine Learning

EECS 442: Causal Learning from Data

4. Technical Electives: electives from minor list or EECS courses

DSCI 133: Introduction to Data Science and Engineering for Majors

Credit Hours: 3

Course Pre-Requisites:
For Data Science & Analytics Major Students: ENGR 131 or EECS 132

Weeks 1-7 provide an overview of data science.
Weeks 8-14 provide project based learning in data science.

Course Description (up to 2100 characters):

This course is an introduction to data science and analytics.

In the first half of the course, students will develop a basic understanding of how to manipulate, analyze and visualize large data in a distributed computing environment, with an appreciation of open source development, security and privacy issues.

Case studies and team project assignments in the second half of the course will be used to implement the ideas. Topics covered will include: Overview of large scale parallel and distributed (cloud) computing; file systems and file i/o; open source coding and distributed versioning, data query and retrieval; basic data analysis; visualization; data security, privacy and provenance.

Detailed Syllabus:
Week 1: Introduction to course; overview of data science and engineering
Week 2: Data storage: cost, performance and tradeoffs. Computational speed: CPU limited, data transfer speed limited
Week 3: Computational thinking using scripts, functions and programs
Week 4: Overview of cloud computing
Week 5: Team code development and versioning
Week 6: Data query, indexing and retrieval
Week 7: Data security, privacy and provenance
(Midterm exams)
Week 8: Introduction to Statistical Data Analysis
Week 9: Data Analysis Case Study 1
Week 10: Introduction to machine learning and data mining
Week 11: Data Analysis Case Study 2
Week 12: Data Visualization
Week 13: Overview of Databases, SQL and NoSQL
Week 14: Two guest lectures from domain experts illustrating real DSE problems and solutions

DSCI 234: Structured and Unstructured Data

Transcript Title: Struc/Unstruc Data

Credit Hours: 3

Course Pre-Requisites: DSCI 133

Course Description (up to 2100 characters):

This course is an introduction to types of data and their representation, storage, processing and analysis. The course has three parts.

In the first part of the course, students will develop a basic understanding and the ability to represent, store, process and analyze structured data. Structured data include catalogs, records, tables, logs, etc, with a fixed dimension and well-defined meaning for each data point. Suitable representation and storage mechanisms include lists and arrays. Relevant techniques include keys, hashes, stacks, queues and trees.

In the second part of the course, students will develop a basic understanding and the ability to represent, store, process and analyze semi-structured data. Semi-structured data include texts, web pages and networks, without a dimension and structure, but with well-defined meaning for each data point. Suitable representation and storage mechanisms include trees, graphs and RDF triples. Relevant techniques include XML, YAML, JSON, parsing, annotation, language processing.

In the third part of the course, students will develop a basic understanding and the ability to represent, store, process and analyze unstructured data. Unstructured data include images, video, and time series data, without neither a fixed dimension and structure, nor well-defined meaning for individual data points. Suitable representation and storage mechanisms include large matrices, EDF, DICOM. Relevant techniques include feature extraction, segmentation, clustering, rendering, indexing, and visualization.

Detailed Syllabus:
Week 1: Introduction to course; overview of data types and their lifecycle.
Week 2: Structured data and databases. Data capture, data storage, data migration, data integration: cost, performance and tradeoffs.
Week 3: Lists and arrays keys, hashes, stacks, queues.
Week 4: Lists and arrays keys, hashes, stacks, queues.
Week 5: Semi-structured data, their capture, storage, migration, and integration.
Week 6: Trees
Week 7: Graphs and RDF triples
(Midterm exams)
Week 8: XML, YAML, JSON, parsing, annotation, language processing
Week 9: Image data: format (jpeg, png, DICOM) and processing (Matlab, ImageJ libraries)
Week 10: Video: MPEG and other format, compression, processing
Week 11: Time series: EDF format, compression, processing
Week 12: Querying and searching techniques

Week 13: Exploring and visualizing data
Week 14: Project presentation

DSCI 341: Introduction to Databases: DS Major

Transcript Title: Introduction to Databases: DS Major

Credit Hours: 3

Course Pre-Requisites:

- EECS 233: Intro to Data Structures or DSCI 234.

Weeks 1-6 provide an overview of basic database systems concepts including database design, database systems architecture, and database querying, using relational model and SQL as query language.

Weeks 7-10 Objects, Semi structured data, XML and RDF basics.

Weeks 11-14 provide an overview of more advanced topics including Database System Architectures (Parallel Databases and Distributed Databases), and Data Warehousing and Information Retrieval.

Objectives:

1. The student should know the basic concepts in data bases including database design, implementation, and query languages.
2. The student should know how to use a relational database system, and be knowledgeable of other data representation schemes including XML and RDF which are becoming increasingly popular for data exchange and representation of data on the web. Given a data base application, the student should be able to design, implement and query the database.

Course Description (up to 2100 characters):

Database management become a central component of a modern computing environment, and, as a result, knowledge about database systems has become an essential part of education in computer science and data science. This course is an introduction to the nature and purpose of database systems, fundamental concepts for designing, implementing and querying a database and database architectures.

Detailed Syllabus:

Week 1: Introduction to course; overview of database systems

Week 2: Entity Relational and Relational Model

Week-3: SQL

Week 4: Relational Algebra and Calculus

Week 5: Views, Transactions, Integrity constraints

Week 6: Accessing SQL from a Programming Language, functions, procedures, triggers

Week 7-8: Object oriented databases, XML

(Midterm exam)

Week 9-10: RDF, data on the web
Week 11-12 Overview of Query Processing
Week 13: Data Warehousing
Week 14: Distributed and Parallel Databases

DSCI 342: Introduction to Data Science systems

Transcript Title: Intro Data Science Systems

Credit Hours: 3

Course Pre-Requisites: DSCI 234

Course Description and objectives (up to 2100 characters):

An introduction to the software and hardware architecture of data science systems, with an emphasis on Operating Systems and Computer Architecture that are relevant to Data Sciences systems. At the end of the course, the student should understand the principles and architecture of storage systems, file systems (especially, HDFS), memory hierarchy, and GPU. The student should have carried out projects in these areas, and should be able to critically compare various design decisions in terms of capability and performance.

Detailed Syllabus:

1. The Unix/Linux Operating System. Basic concepts, the command line interface. Sample lab assignment: install Linux Mint, create user accounts, start MySQL service. Reference: M. Garrels. *Introduction to Linux. A Hands on Guide.* http://tldp.org/LDP/intro-linux/html/. Weeks: 1.
2. The C programming language. Reference: C. Burch. *C for Python programmers.* http://www.toves.org/books/cpy/. Weeks: 2.
3. Storage architecture. HDD: architecture, performance (e.g., seek time, sequential vs random access, caching, etc), RAIDs. SDD. Logical Volumes. Sample lab: create logical volumes, use them in a software RAID, and measure performance. Reference: [HP] [AD]. Weeks: 2.
4. File Systems: files and directories, file system implementation, journaling, log-structured file systems, data integrity, distributed systems [AD]. Weeks: 2
5. The Hadoop File System (HDFS). Reference: HDFS Architecture Guide, http://hadoop.apache.org/docs/r1.2.1/hdfs_design.html. Weeks: 1.
6. The Map-Reduce engine: JobTracker and TaskTracker, scheduling. Hadoop use cases. Reference: [KM]. Weeks: 1.
7. Memory Hierarchy: design, virtual memory, address spaces, memory API, and introduction to paging. References: [HP] [AD]. Weeks: 2.
8. Data level parallelism in vector, SIMD, and GPU architectures. Reference: [HP]. Weeks: 2.
9. CUDA: introduction and parallel programming. References: [SK]. Weeks: 2.
10. GPUs: graphics pipeline, model transformation, lighting, unified shaders, rasterization, texturing, hidden surfaces. General Processing GPU. Reference: D. Luebke, G. Humphreys. How GPUs work. *Computer* **40**(2). Weeks: 1.

Main References

[AD] R. H. Arpaci-Dusseau and A. C. Arpaci-Dusseau. *Operating Systems: Three Easy Pieces*. http://pages.cs.wisc.edu/~remzi/OSTEP/

[HP] J. L. Hennessy and D. A. Patterson. Computer Architecture.

[KM] M. Kerzner and S. Maniyam. *Hadoop Illuminated.*

[SK] J. Sanders and E. Kandrot. *CUDA by Example: An Introduction to General-Purpose GPU Programming.* Addison-Wesley Professional.

DSCI 343: Introduction to Data Analysis

Transcript Title: Intro Data Analysis

Credit Hours: 3

Course Pre-Requisites: EECS 233/DSCI 234, Probability/Statistics, EECS 340

Course Description and objectives (up to 2100 characters):

In this class we will give a broad overview of data analysis techniques, covering techniques from data mining, machine learning and signal processing.
Students will also learn about probabilistic representations, how to conduct an empirical study and support empirical hypotheses through statistical tests, and visualize the results.

Course objectives:

- expose students to different analysis approaches
- understand probabilistic representations and inference mechanisms
- understand how to create empirical hypotheses and how to test them.

Detailed Syllabus:

Week 1: Data Preprocessing, Cleaning and Validation
Week 2: Frequent patterns and Association Rules
Week 3: Empirical Methodology
Week 4: Statistical Hypothesis Testing
Week 5: Correlation and Causation
Week 6: Belief Networks and Causal Networks
Week 7: Inference in Belief Networks
(Midterm exams)
Week 8: Working with Labeled Data: Classification
Week 9: Working with Labeled Data: Regression
Week 10: Interpreting and Visualizing Models
Week 11: Working with time series data: time domain methods
Week 12: Working with time series data: frequency domain methods
Week 13: Statistical signal processing: detection and classification
Week 14: Statistical signal processing: filtering and estimation
Week 15: Wrapup

DSCI 344: Scalable Parallel Data Analysis
Pre-requisites: DSCI 234, 342

Course Description: This course provides an introduction to scalable and parallel data analysis using the most common frameworks and programming tools in the age of big data. Covered topics include parallel programming models, parallel hardware architectures, multi-threaded, multi-core programming, cluster computing and GPU programming. The course is designed to provide a heavily hands-on experience with several programming assignments.

Course Textbook(s):
1. A Kaminsky. BIG CPU, BIG DATA : Solving the World's Toughest Computational Problems with Parallel Computing, Creative Commons, 2014 (freely available on the web).
2. A. Grama et al., Introduction to Parallel Computing, 2nd Edition, Wiley & Sons: 2003.
3. A. C. Telea. Data Visualization. Principles and Practice. AKPeters 2008.

Draft Syllabus:
1. Motivating parallelism, scope of parallel computing (0.5 weeks).
2. Implicit parallelism, trends in microprocessor architectures, dichotomy between computing and communication (0.5 weeks).
3. Parallel hardware architectures, physical organization of parallel platforms, historical perspective (0.5 weeks).
4. Parallel computing paradigms: Shared memory vs. message passing architectures (0.5 weeks).
5. Concurrent programming:
   a. Threads and synchronization (2 weeks)
   b. Functional constructs: immutable objects, map, reduce (1 week)
   c. Processes, IPC, and REST (1 week)
6. Tightly coupled multicore: Parallel loops, reduction, load balancing, overlapping, sequential dependencies, scaling, search algorithms (2.5 weeks).
7. Cluster computing: Massively parallel, hybrid parallel, tuple space, cluster load balancing, interacting tasks (2.5 weeks).
8. GPU programming: GPU Massively parallel, GPU parallel reduction, Multi-GPU programming (2.5 weeks).
9. Data visualization: the visualization pipeline, scalar, vector and tensor visualization. (1 week)

DSCI 345: Files, Indexes and Access Structures for Big Data

Transcript Title: Indexes for Big Data: DS Major

Credit Hours: 3

Course Pre-Requisites:

- Basic knowledge on data structures (stacks, lists, queues, trees) and algorithms (basic searching and sorting, iteration, recursion) (EECS 233/DSCI 234) and
- Basic knowledge on discrete structures (graphs, trees, sets, proof by induction) (EECS 302).

Objectives:

- An expert knowledge of basic data structures, basic searching, sorting, methods, algorithm techniques, (such as greedy and divide and conquer)
- In-depth knowledge on Search and Index Structures for large, heterogeneous data including multidimensional data, high dimensional data and data in metric spaces (e.g., sequences, images), on different search methods (e.g. similarity searching, partial match, exact match), and on dimensionality reduction techniques.

Course Description (up to 2100 characters):

Database management become a central component of a modern computing environment, and, as a result, knowledge about database systems has become an essential part of education in computer science and data science. This course is an introduction to the nature and purpose of database systems, fundamental concepts for designing, implementing and querying a database and database architectures.

Detailed Syllabus:

Week 1-2: Introduction to course; overview of basic structures, trees, tree representations, search trees, heaps, Huffman codes—a different application of trees.
Week 2-3 Multiway trees, balanced trees, static/dynamic trees, B-trees, AVL trees, R/B trees.
Week-4: Indexes on Sequential Files, Sparse and dense indexes, multiple levels of Index, secondary index, inverted lists.
Week 5: Tree Based index structures, B+ trees, B-trees comparison
Week 6: Hashing, Static Hashing, and Dynamic Hashing, Hash based Indexes
Week 7-8: Multi-dimensional Data and Indexes: Applications—Geographic Information Systems, Biological Databases. Nearest neighbor, and range queries.

(Midterm Exam)

Week 9: Hash like structures for Multidimensional Data: Grid Files, Partitioned Hashing.

Week 10: Tree like structures for Multidimensional Data: kd-tree, Quad trees, R-Trees and its variants

Week 11: Distance Based Index Structures: VP-tree, MVP-tree, GNAT

Week 12: Bitmap Indexes: motivation, compressed bitmap index.

Week 13: String / Sequence Similarity search

Week 14: Indexes for Graph databases

DSCI 390: Machine Learning for Big Data

Transcript Title: ML for Big Data

Credit Hours: 3

Course Pre-Requisites: EECS 233/DSCI 234, Probability/Statistics, DSCI 343

Course Description and objectives (up to 2100 characters):

Machine learning is a subfield of Artificial Intelligence that is concerned with the design and analysis of algorithms that "learn" and improve with experience, While the broad aim behind research in this area is to build systems that can simulate or even improve on certain aspects of human intelligence, algorithms developed in this area have become very useful in analyzing and predicting the behavior of complex systems. Machine learning algorithms have been used to guide diagnostic systems in medicine, recommend interesting products to customers in e-commerce, play games at human championship levels, and solve many other very complex problems. This course is an introduction to algorithms for machine learning and their implementation in the context of big data. We will study different learning settings, the different algorithms that have been developed for these settings, and learn about how to implement these algorithms and evaluate their behavior in practice. We will also discuss dealing with noise, missing values, scalability properties and talk about tools and libraries available for these methods.

At the end of the course, you should be able to:

--Understand when to use machine learning algorithms;

--Understand, represent and formulate the learning problem;

--Apply the appropriate algorithm(s) or tools, with an understanding of the tradeoffs involved including scalability and robustness;

--Correctly evaluate the behavior of the algorithm when solving the problem.

Detailed Syllabus:

Week 1: Review of basic machine learning concepts (recap from Intro to Data Analysis)

Week 2: Artificial Neural Networks

Week 3: Support Vector Machines

Week 4: Probabilistic Methods

Week 5: Probabilistic Methods

Week 6: Deep Architectures

Week 7: Learning from Data Streams

(Midterm exams)

Week 8: Sequential Learning algorithms

Week 9: Feature selection and dimensionality reduction

Week 10: Handling noise and missing data

Week 11: Scaling up learning algorithms

Week 12: Cost-sensitive learning, dealing with imbalanced data

Week 13: Multiclass learning and regression

Week 14: Learning from structured objects

Week 15: Wrapup

DSCI 391: Data Mining for Big Data

Transcript Title: Data Mining: DS Major

Credit Hours: 3

Course Pre-Requisites: EECS 233/DSCI 234, Probability/Statistics, DSCI 343

Weeks 1-4 provide an overview of basic data mining concepts including association rule mining, data preprocessing and matrix decompositions.

Weeks 5-8 provide an overview of commonly used data mining tools including classification and clustering.

Weeks 9-14 provide an overview of more advanced topics including high-dimensional data analysis and mining graph data.

Objectives:

1. The student should know the basic tools in data analytics including various forms of matrix decomposition, linear regression and data preprocessing.
2. The student should know commonly used data mining tools, in which problem settings to use what tools. Given a data source, the student should be able to determine relevant data mining tasks that can be applied to analyze the data, describe the expected outcome, and the evaluation criteria for the results.

Course Description (up to 2100 characters):

With the unprecedented rate at which data is being collected today in almost all fields of human endeavor, there is an emerging economic and scientific need to extract useful information from it. Data mining is the process of automatic discovery of patterns, changes, associations and anomalies in massive databases, and is a highly inter-disciplinary field representing the confluence of several disciplines, including database systems, data warehousing, machine learning, statistics, algorithms, data visualization, and high-performance computing. This course is an introduction to the commonly used data mining techniques.

In the first part of the course, students will develop a basic understanding of the basic concepts in data mining such as frequent pattern mining, association rule mining, basic techniques for data preprocessing such as normalization, regression, and classic matrix decomposition methods such as SVD, LU, and QR decompositions.

In the second part of the course, students will develop a basic understanding of classification and clustering and be able to apply classic methods such as k-means, hierarchical clustering methods, nearest neighbor methods, association based classifiers.

In the third part of the course, students will have a chance to study more advanced data mining applications such as feature selection in high-dimensional data, dimension reduction, and mining biological datasets.

Detailed Syllabus:

Week 1: Introduction to course; overview of the data mining tasks.
Week 2-3: Frequent pattern and association rules
Week 4: Data preprocessing
Week 5-6: Clustering
Week 7-8: Classification
(Midterm exams)
Week 9-10: sequential pattern mining
Week 11-12: feature selection and dimension reduction
Week 13: network/graph mining
Week 14: Project presentation

MATH/STAT APPROVAL

From: David Singer <david.singer@case.edu>
Date: June 12, 2015 8:18:47 AM EDT
To: "Kenneth A. Loparo" <kenneth.loparo@case.edu>
Subject: Re: MATH/STAT Courses

Dear Ken,
I am happy to approve the inclusion of MATH 201 and an elective in probability or statistics in the program.
Cheers,
David

On 6/12/2015 6:46 AM, Kenneth A. Loparo wrote:
Dear David: I hope that this email finds you well. As you may be aware, when Barbara was Chair of the BHEF she initiated a process to develop a new UG degree program in data sciences. The new program will include not only the MATH courses in the CSE GER, but will also include MATH 201 and a Probability/Statistics elective, much like several of the current degree programs in EECS.

I am writing to seek your approval for including these courses in the degree program description, please let me know your decision about including these courses by return email.

Thanks,

Ken

Kenneth A. Loparo
Nord Professor of Engineering and Chair
EECS Department
Case Western Reserve University
10900 Euclid Ave
Cleveland, OH 44106-7071
Phone: 216-368-4115

--
Professor and Interim Chair
Department of Mathematics, Applied Mathematics, and Statistics
Case Western Reserve University
Cleveland, OH 44106-7058
(216) 368-2892

***CWRU* Action Form for Majors/Minors/Programs/Sequences/Degrees** Docket # _____
(instructions on back)

College/School: __School of Medicine_____
Department: __Nutrition_____

PROPOSED: _____ major
__X__ minor
_____ program
_____ sequence
_____ degree

TITLE: __Sports Nutrition Minor_____

EFFECTIVE: ___Spring___ (semester) ___2016___ (year)

DESCRIPTION:

NTRN 201	Nutrition (3 cr.)
NTRN 361	Energy Dysregulation: From Obesity to Anorexia (3 cr.)
NTRN 362	Exercise Physiology and Macronutrient Metabolism (3 cr.)
NTRN 388	Seminar in SPORTS NUTRITION (3 cr)
NTRN Elective	300-Level (3 cr.)

This new minor program (15 cr. hrs. total) will meet the unique needs and interests of nutrition students who are specifically seeking more detailed information related to the interplay between nutrition and sports; that is, this minor program includes information specifically tailored for students in the areas of macronutrient utilization and micro-nutrients cofactors, including vitamins, and trace and ultra-trace minerals, and the effects on sports performance, body composition, and related health issues.

During the past few years, there has been a sustained and increasing level of nutrition student interest as exhibited by more than ~20 students per year asking for such a minor program. This includes undergraduate students who are nutrition majors and other students who are non-nutrition majors, as well as transfer students and other prospective students. Note: NTRN 362 is used because it is unique in terms of its content related to exercise physiology and macronutrient metabolism; use of the existing exercise physiology course in the athletics department is not realistic for our students due to the number of required lab time hours.

No other minor program at CWRU delves into the details this new minor program offers, especially in regards to the areas of macronutrient utilization and micro-nutrients cofactors, including vitamins, and trace and ultra-trace minerals, and the effects on sports performance, body composition, and related health issues. Further, this new minor program, which includes unique guidance from nutrition faculty, will, among written, oral, and other assignments, involve guided review of current and pertinent literature. Further, nutrition students completing this new minor will be at the forefront of their peers in this area of study.

Is this major/minor/program/sequence/degree: __X__ new
_____ modification
_____ replacement

If modification or replacement please elaborate: __N/A_____

Does this change in major/minor/program/sequence/degree involve other departments? _____Yes __X__ No

If yes, which departments? _____

Contact person/committee: James Arruda 8/26/2015

SIGNATURES: DATE
Department Curriculum Chair(s)/Program Directors: _____
Department Chair: [redacted] 8/27/15
College/School Curriculum Committee Chair: _____
College/School Dean(s): _____
UUF Curriculum Committee Chair: _____

File copy sent to: _____Registrar _____Office of Undergraduate Studies/Graduate Studies
_____Other: _____

SCHOOL OF MEDICINE
CASE WESTERN RESERVE UNIVERSITY

Pamela B. Davis, M.D., Ph.D.
Dean
Senior Vice President for Medical Affairs

Office of the Dean

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February 27, 2016

Roy Ritzmann, PhD
Chair, Faculty Senate
c/o Rebecca Weiss, Secretary of the University Faculty
Adelbert Hall
7001

Dear Dr. Ritzmann:

As noted in the accompanying memo from Dr. Bill Schilling, Chair of the School of Medicine's Faculty Council, the Faculty Council has recommended approval of a new undergraduate minor in Sports Nutrition.

This new minor will meet the needs of our undergraduate students interested in the dietary components influencing physical activity and sports performance. There has been a substantial and sustained student interest in creating this minor. The courses will continue to be taught by our expert faculty and the students will possess a solid foundation in this area if they choose to continue their studies in graduate or professional school. The department and faculty have experience with the management and education of undergraduate programs.

The proposal approval process is outlined in Dr. Schilling's memo. An ad hoc Committee was convened to review this new program and after revisions, the program was approved by the Faculty Council. I concur with the Faculty of Medicine and recommend approval of this graduate certificate program.

Please submit the proposed Minor in Sports Nutrition to the appropriate committees for their review at their earliest opportunity. I would be pleased to answer any questions that might arise during the review process.

Thank you.

Sincerely,

Pamela B. Davis, MD, PhD

c: Dr. Bill Schilling, Chair, Faculty Council
Nicole Deming, Assistant Dean for Faculty Affairs and Human Resources, SOM

enclosures

Memorandum

To: Pamela B. Davis, MD, PhD
Dean, School of Medicine
Case Western Reserve University

From: William Schilling, PhD
Chair, Faculty Council

Re: Maternal and Child Nutrition Certificate

Date: February 23, 2016

At its December 21, 2015, meeting, the Faculty Council voted to recommend approval of a Minor in Sports Nutrition proposal. The minor will be offered by the Department of Nutrition in the School of Medicine.

In accordance with our SOM practices, an ad hoc committee composed of members of the Faculty Council Steering Committee, Graduate Directors, the SOM members of the Faculty Senate's Committee on Graduate Programs, the Associate Dean for Graduate Education and members from the undergraduate degree programs (Nutrition and Biochemistry) was created to review the program proposal. The ad hoc committee was chaired by Nicholas Ziats and met with Hope Barkoukis, Interim Chair of Nutrition. The ad hoc committee reviewed the document, discussed the proposal, and engaged with the program presenter. After the meeting was concluded a summary of changes was created. These changes were adopted and the revised proposal was circulated to the ad hoc committee for a vote. The ad hoc committee approved the reviewed proposal and it was sent to the Faculty Council for a vote.

After your review, I hope you will join me in recommending approval of the proposal for an undergraduate minor in Sports Nutrition by the Faculty Senate and Board of Trustees as required by the Faculty Handbook. This new minor will also require approval by the Ohio Board of Regents.

Please let me know if I can provide any additional information.

Thank you for your consideration.

Sincerely,

William P. Schilling, Ph.D.
Faculty Council Chair
Professor of Physiology and Biophysics
Case Western Reserve University School of Medicine

cc: Nicole Deming, JD, MA

Additional information to support new sports nutrition minor

PAF initially submitted 8/27/15 to Nicholas Ziats by James Swain

From: Department of Nutrition

I. The following information was presented on the original PAF as submitted this past August, 2015:

Required courses for the sports nutrition minor:

NTRN 201: Nutrition (3 credits)

NTRN 361: Energy Dysregulation: From Obesity to Anorexia (3 credit hours)

NTRN 362: Exercise Physiology and Macronutrient Metabolism (3 credit hours)

NTRN 388: Seminar in Sports Nutrition (3 credit hours)

NTRN elective: (3 credit hours)

Re: Narrative to new questions related to sports nutrition minor request for approval

II. Additional information per the October 1 request:

Rationale for this new minor:

1) Healthy People 2020 is a federal initiative which identifies 10 year national goals for the United States to improve the health of all Americans. In Healthy People 2020, certain target areas have been identified as high priority issues. Identified as one of the 42 high priority topic areas is the one called, "Nutrition, Physical Activity and Obesity". Specifically, this initiative indicates that 35.3% of adults age 20 and older are obese, and in those aged 2 to 19, 16.5% are obese. Therefore, the collective competencies and skills students will learn secondary to completion of this minor will help them advance and understand sound nutrition and physical activity principles to promote health at the level of the individual, in congruence with preparing students to meet the needs of this federal initiative. Students who continue post bachelor degree to employment in related health care or government arenas and/ or pursue graduate and professional degrees, (especially those in pre-health), may have the opportunity to propel these competencies to advance health at the level of the community, institutional and potentially professional levels.

2) The reason that the Nutrition Dept. created the exercise physiology course (NTRN 362) as an important complement to our curricular offerings and to be part of this minor. No other such course is in existence on this campus intertwining nutrition, exercise physiology and an advanced understanding of the science & research behind nutrition for performance and

activity. In particular, the athletics course in exercise physiology does not include nutrition principles intertwined into the syllabus. Additionally, that course (from athletics) includes a mandatory comprehensive set of practice hours devoted to working with the various sports teams here. The nutrition department did communicate with athletics to determine if their specific exercise physiology course could accommodate more students and we were told that it could not. And, it is highly likely that many of our interested students would be able to take the exercise physiology course from the athletics department due to the concurrent requirement of the practice component. Hence, the creation of this sports nutrition minor as well as that NTRN 362 course. Thus, the take away message is that this is a unique opportunity for our undergraduate students, requiring no additional faculty expertise, nor course development, and congruent with the overall effort to increase the health and well-being of students.

3) This new minor will meet the needs and interests of undergraduate students who are specifically seeking an advanced understanding of the core principles in nutrition as it relates to energy balance and physical activity. They will begin by learning about how dietary components influence maintenance of energy balance, impact physical activity, sports performance, body composition, skeletal muscle and bone health, as well as overall health and well-being throughout the life-cycle. By the time they complete this core of 15 credits, they will appreciate the interrelationship of food habits and dietary patterns to physical activity, energy balance and health maintenance.

4) During the past three years there has been a strong and sustained interest by our own nutrition students asking for the creation of such a minor. These include students who are unable to take the full complement of courses to become a nutrition major, as well as those who are interested in these particular domains of science.

5) There is no other minor program available like this currently at CWRU, despite the fact we do have a sports medicine minor.

6) There is no other parallel minor available for undergraduate students within the regional Cleveland area.

Why is this new sports nutrition minor an appropriate addition to the set of offerings for undergraduates?

1) All of these courses in the nutrition department are currently in existence, taught by faculty who are experts in these respective areas of focus. Therefore, we are simply expanding the visibility of these unique offerings to students by 'packaging' them into an official minor in sports nutrition;

2) This minor will also uniquely position students to demonstrate more competency in a particular area of health priority (as explained previously) such that this may in fact be advantageous in

future employment, research opportunities, or even the pursuit of post bachelor degrees in health care professions.

3) The CWRU campus is also uniquely set within the geographical space of University Hospitals. Many of our students do volunteer work at UH in various capacities. Ultimately, many of our graduate students get hired by University Hospitals as well. Behind the scenes, in the recent past, UH has bought the medical rights to caring for the pro football team, the Browns. Current plans are to create a sports institute on this campus. This minor would position these students with foundational knowledge and skills to perhaps identify an area of interest that propels them to consider graduate school and professional school with a focus on these areas of high demand and/or to be hired at UH in various capacities.

4) There may also be increased research opportunities for them given their very unique didactic competencies, the government's focus with NIH funding related to obesity, and researchers in the greater Cleveland area.

How will this new minor impact courses offered and the faculty required to teach these courses:

1) Courses are currently in existence. Therefore there would be no negative impact on current course offerings;

2) Courses are taught by faculty with expertise in these areas. Therefore, there would be no negative impact on current faculty load. The faculty currently teaches these courses as part of their standard academic duties.

3) If in fact, the demand became extremely robust, we would happily accommodate this by offering additional sections of the respective courses.

How is this new minor different from existing minors?

1) The current 'straight' nutrition minor is in existence to meet a broad spectrum of competencies within the entire domain of nutrition. This minor is very satisfactory for the student who wishes a generalized background of information in nutrition, but perhaps is not interested in this particular focus of sports nutrition. We see these two minors as two distinct opportunities for students to meet the varied interests of undergraduate students at this University.

2) The current minor of sports medicine does not currently require any nutrition courses at all. Therefore there is no overlap in the two offerings. However, having stated this, we could indeed envision students in one minor being very interested in this other minor as well, as they do complement each other.

3) Students who have declared one of the four Nutrition majors (BA – NTRN, BS- NTRN, BA- NBM, or BS- NBM) can declare the Minor in Sports Nutrition but no more than 2 courses (6 credits) can count towards both the major and the minor. NTRN 201 (3 credits) is required for all of the four majors and the Minor in Sport Nutrition. It would be the first course to count towards both the

major and the minor. Therefore, of the other required courses for the minor, only one of those (at 3 credits) could "double-count" as an elective for the major.

How is the Minor in Sports Nutrition minor different from the Minor in Nutrition?

Students may earn only one of these minors.

The goal of the Minor in Nutrition is to provide a broad base and general knowledge of food science, basic nutrition, lifecycle nutrition, cultural differences around food, and governmental regulations and programs regarding food and nutrition.

Required courses for a **Minor in Nutrition**:

NTRN 201 Nutrition (3 credits)

NTRN 328 Child Nutrition, Development and Health (3 credits)

NTRN 342 Food Science (3 credits)

NTRN 343 Dietary Patterns (3 credits)

Three credits selected from the following courses

NTRN 351 Food Service Systems Management

NTRN 361 Energy Dysregulation: From Obesity to Anorexia-

NTRN 363 Human Nutrition I: Energy, Protein, Minerals

NTRN 364 Human Nutrition II: Vitamins

NTRN 365 Nutrition for the Prevention and Management of Disease: Pathophysiology

NTRN 366 Nutrition for the Prevention and Management of Disease: Clinical Applications

NTRN 388 Seminar in Sports Nutrition

The goal of the Minor in Sports Nutrition is to provide specific knowledge and learning experiences in the area of Sports Nutrition, energy balance and regulation.

Required courses for a **Minor in Sports Nutrition**:

NTRN 201 Nutrition

NTRN 361 Energy Dysregulation: From Obesity to Anorexia.

NTRN 362 Exercise Physiology and Macronutrient Metabolism

NTRN 388 Seminar in Sports Nutrition

One elective at the 300 level

Both minors require the introductory course NTRN 201 which provides basic knowledge about the nutrients, how nutrient needs change throughout the lifecycle, food safety, and nutrition recommendations for healthy people. This course is a pre-requisite for all other courses in both minors except for NTRN 342 – Food Science (which has CHEM 105 as a pre-req.)

Other than NTRN 201, the only course that is specifically included in both minors is NTRN 388 – Seminar in Sports Nutrition. This course is an elective for the Minor in Nutrition and is a required course for the Minor in Sports Nutrition.

The one 300 level elective course in the Minor in Sports Nutrition could be one of the courses listed for the Minor in Nutrition or another course of the student's choosing such as NTRN 371 – Special Problems or NTRN 390 – Undergraduate Research where students in this minor could work with Nutrition faculty on a research project that is focused on sports nutrition. For example, we currently have several undergraduate students who are working with Dr. Lynn Kam on a project titled: Metabolic Activity Patterns in Overweight/Obese Adults in a Physical Activity Weight Loss Program".

***CWRU* Action Form for Majors/Minors/Programs/Sequences/Degrees** Docket # _____
(instructions on back)

College/School: College of Arts and Sciences
Department: Department of Modern Languages and Literatures

APPROVED
A&S CoP 9-19-14
A&S Executive Committee 5-8-15
Faculty of the College of Arts and Sciences 10-30-15
Dean of the College 10-30-15

PROPOSED: __X__ major
_____ minor
_____ program
_____ sequence
_____ degree

TITLE: Major in Chinese

EFFECTIVE: Spring (semester) 2016 (year)

DESCRIPTION:

The proposed major (for the B.A.) in Chinese takes a minimum of 35 credit hours to complete. For students who begin the major at the 200 level, they will be required to take CHIN 201 and 202, CHIN 301 and 302, CHIN 380 and 381, Senior Thesis I and II; four Chinese Literature and Culture courses, two of which may be replaced by other related courses. For students who begin the major at the 300 level, they will be required to take CHIN 301 and 302, CHIN 380 and 381, 1 directed reading, Senior Thesis I and II; four Chinese Literature and Culture courses, two of which may be replaced by other related courses. "Other related courses" (see a detailed list in what follows.) could include courses that have significant portion of Chinese components in the fields of Chinese Literature, Culture, Cinema, Theater, Art History, Anthropology, History, and Asian Studies. Students should contact the Chinese faculty representative to discuss if a course could be considered a related course.

This new major will be of interest to a large number of students and will make a significant contribution to the Department, the College, and the University. Moreover, the nationwide growth in demand for graduates with a Chinese (Studies) major supports the need to establish such a major at CWRU. Furthermore, the Chinese major, with its interdisciplinary perspective, will certainly move the College's and the University's strategic plan forward. It will involve internationalization by promoting study abroad and other exchange programs in mainland China, Hong Kong, and Taiwan, and developing and strengthening collaborations and partnership with educational institutions in China. It will add to diversity on our campus through its promotion of mutual understanding between the U.S. and Chinese cultures, and help increase the awareness of cultural diversity and communication in our community. This is a major that will make our students more competitive and marketable. It will increase the attractiveness of the Department, the College, and the University not only among students, but also among potential supporters from mainland China, Hong Kong, and Taiwan, and organizations that promote Sino-U.S. relationships. In terms of scholarship, the Chinese major will strengthen Chinese studies at CWRU through collaboration among different disciplines in undergraduate teaching and research projects. Resources in the field of Chinese studies will be reorganized through collaborations among participating faculty members, and, therefore, will be more effectively used.

Is this major/minor/program/sequence/degree: __X__ new
_____ modification
_____ replacement

If modification or replacement please elaborate: _____

Does this change in major/minor/program/sequence/degree involve other departments? __X__ Yes _____ No

If yes, which departments? Anthropology, Asian Studies, Art History and Art, History, World Literature
2 programs

Contact person/committee: Haomin Gong

SIGNATURES: **DATE**

Department Curriculum Chair(s)/Program Directors: Gabriela Coperari

Department Chair: Stephen E. Hausmann

College/School Curriculum Committee Chair: V. Hayward/cas 9-19-14

College/School Dean(s): C. Korbin/cas 9-19-14

UUF Curriculum Committee Chair: 10-30-15

File copy sent to: _____Registrar _____Office of Undergraduate Studies/Graduate Studies
_____Other:

See the attached page

SIGNATURES:

Department Chair/Program Director (Anthropology): (Lawrence Greksa)

Department Chair/Program Director (Asian Studies): Jia-Chen Fu.

Department Chair/Program Director (Art History and Art): Catherine Scallen

Department Chair/Program Director (History): Jonathan Sadowsky

World Literature. Florin Berindeanu

CASE WESTERN RESERVE
UNIVERSITY
COLLEGE OF ARTS AND SCIENCES

Department of Modern Languages and Literatures

10900 Euclid Avenue
Cleveland, Ohio 44106-7118

Phone 216-368-3071
Fax 216-368-2216
http://dmll.case.edu/

To: Cyrus Taylor, Dean, College of Arts and Sciences

From: Yas Shirai, Chair, DMLL

Date: September 13, 2015

Re: Chinese major

In response to your email dated May 18, we discussed the condition of approving Chinese major at our departmental meeting on August 20. James Gong, Assistant Professor and Chinese program head, presented the condition of approval from the executive committee, which states:

> *the Executive Committee voted to Approve the proposal for a New Major in Chinese contingent upon consultation and agreement within the Department of Modern Languages and Literatures that no new resources will be required to launch the program.*

After some clarification questions, a discussion ensued regarding the possible shift of resources from German to Chinese, since the launch of Chinese major may lead to Associate Professor Peter Yang teaching more Chinese at the cost of German, which may lead to the weakening of German program. Shirai (Chair) assured that he would protect the German program. The faculty voted whether the department approve the proposal to accept the condition set by the Executive Committee, with a result of 18* yes, 0 no, and 5 abstention votes. The proposal was approved.

*The tally inadvertently included the votes of 2-3 lecturers who voted for the proposal. According to the DMLL bylaws, they do not constitute voting faculty. This however does not affect the outcome of the vote.

To: Dr. Stephen Haynesworth, Chair of Department of Modern Languages and Literatures
From: Haomin Gong, Assistant Professor of Chinese
Date: March 31, 2014

Proposal for a New Chinese Major at Case Western Reserve University

After careful consideration of the current status of the minor in Chinese and the majors in other language and culture sections in the Department of Modern Languages and Literatures (DMLL), as well as other related programs, I would like to propose a Chinese major for undergraduate students at Case Western Reserve University (CWRU). I hope you will support my proposal.

1. Justification

The proposed major in Chinese will be of interest to a large number of students and will make a significant contribution to the Department, the College, and the University. Interest in Chinese at CWRU has been increasingly strong and is constantly growing, more apparently in recent years. This is partly exhibited in the steadily increasing enrollments, which rose from 31 students in fall 1993 to 96 in spring 2013, and in the growing number of course offerings. The number of students opting for a Chinese minor also continues to grow. Between 1993 and 2012, 60 students graduated with a minor in Chinese, and currently 10 students have declared a Chinese minor. Yet, the fact that DMLL currently does not offer a major in Chinese has channeled a considerable number of potential candidates away. For those who desire to improve their competitive edge in the job market, a major in Chinese will make them more competitive than those with a minor in the subject. Many students have come to us to inquire about the possibility of majoring in Chinese, but we had to, with regret, direct them to other programs. A major in Chinese will therefore improve our department's ability to accommodate the need of our students in this regard.

Moreover, the nationwide growth in demand for graduates with a Chinese major supports the need to establish such a major at CWRU. It is well known that China is gaining increasing economic, political, and cultural importance in the global arena--China has one of the most dynamic economies in the world, is one of the biggest players in global business, and since 2004 it has been the world's number one destination for Foreign Direct Investment; Chinese is also one of the six official languages of the United Nations and is spoken by around 1.4 billion people from the People's Republic of China, Hong Kong, Taiwan, and many overseas Chinese people from all around the world; and China has over 5,000 years of history, and a uniquely rich and colorful

culture. The interdependency between the US and China in many aspects is becoming stronger. As a result, Chinese majors in the US, as the Chinese Program at Penn State University states on their webpage,

> may seek employment in government service, domestic and foreign offices, the United Nations, the Peace Corps, the U.S. Information Agency, or other international agencies. [They can also] go on to teach English in China, or to do translation work. Employment may also be available with import and export trade organizations, international banking houses, or U.S. companies abroad. In addition, an increasing number of domestic and multinational companies are seeking employees who have backgrounds in multicultural studies as a way of dealing with the global market.[1]

Many educational institutions have made efforts to take advantage of this growing demand for Chinese, and develop and expand their Chinese programs. My inquiries into Chinese programs at our peer institutions yielded the following findings: in the fall semester of 2013, Washington University in St. Louis has 265 students enrolled in their Chinese language classes (5 levels, plus Business Chinese and Literary Chinese). As of 2013, they have 13 Chinese majors and 46 minors. University of Chicago had a total of 645 students enrolled in their Chinese language classes in 2011-2012 and 682 in 2012-2013. Many universities and colleges in Ohio offer majors in Chinese. Ohio State University has one of the largest and strongest Chinese programs in the U.S. Cleveland State University, University of Akron, University of Toledo, and Miami University have expanded their Chinese programs through collaboration with the Confucius Institute, which receives support from mainland China.

In addition, recent effort to significantly strengthen Chinese programs in K-12 schools in Ohio adds support for the proposed Chinese major at CWRU. As a 2009 study shows, the number of Chinese programs in K-12 schools in Ohio grew from 8 in 2005-2006 to 17 in 2006-2007, 51 in 2007-2008, and 71 in 2008-2009, and the enrollment in these programs increased from 490 in 2005-2006 to 1,383 in 2006-2007, 4,609 in 2007-2008, and 6,500 in 2008-2009.[2] These constantly growing numbers present opportunities for the Chinese program at CWRU, as we see a growing pool of entering students with increasing levels of competence in Mandarin, seeking higher education in Chinese. The Chinese major at CWRU will indeed strengthen research and teaching in this rapidly growing field, and allow CWRU to catch up with other Ohio colleges and universities in this regard.

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[1] http://asian.la.psu.edu/under-chns.shtml

[2] https://startalk.umd.edu/2009/meetings/NFPE/Sunday/Workshop-4/WorkingWithParentsSchools_KunShi.pdf

Furthermore, the Chinese major will certainly move the College's and the University's strategic plan forward. It will involve internationalization by promoting study abroad and other exchange programs in mainland China, Hong Kong, and Taiwan, and developing and strengthening collaborations and partnership with educational institutions in China. It will add to diversity on our campus through its promotion of mutual understanding between the U.S. and Chinese cultures, and help increase the awareness of cultural diversity and communication in our community. This is a major that will make our students more competitive and marketable. It will increase the attractiveness of the Department, the College, and the University not only among students, but also among potential supporters from mainland China, Hong Kong, and Taiwan, and organizations that promote Sino-U.S. relationships. In terms of scholarship, the Chinese major will strengthen Chinese studies at CWRU through collaboration among different disciplines in undergraduate teaching and research projects. Resources in the field of Chinese will be reorganized through collaborations among participating faculty members, and, therefore, will be more effectively used.

The Chinese major will contribute to CWRU's reputation regionally, nationally, and internationally. Aligning the resources in Chinese studies on campus, the Chinese major will make a stronger presence. The College and the University can better serve increasingly diverse local communities more productively with its resources in Chinese. CWRU will be more attractive for the students who are interested in Chinese across the nation and abroad. Students and scholars of Chinese from CWRU will make their presence felt, nationally and internationally, in their careers, conferences, publications, and on other occasions.

In addition, we are fortunate to be located in an area which has strong resources related to Chinese studies, such as the Cleveland Museum of Art, whose Chinese art galleries had a grand reopening in late 2013 after several years of remodeling. The Cleveland Cinematheque also frequently shows Chinese-language films. The growth of Chinese communities in the greater Cleveland area have made this area more culturally diverse and the demand for Chinese stronger. The growing presence of students from China at CWRU will provide additional resources for studies of Chinese. Investment in the Chinese major will be beneficial for the department's developmental agenda.

2. Resources

The Chinese major reflects DMLL's consistent effort to prioritize diversity and internationalization. This new major will not only strengthen the Chinese program in the Department in terms of undergraduate teaching and research, but will also deepen the Department's collaboration with other related departments and programs in CWRU and also with

Chinese educational institutions. Moreover, the collaboration involved in this new major between DMLL and other departments and programs in the humanities and social sciences in the College will strengthen interdisciplinarity. This will foster creative scholarship in the field of Chinese studies.

The Chinese major will have very minimal impact on the allocation of resources in the Department, but it will strengthen the structure of the Department in terms of research and undergraduate teaching. This is because 1) those who will take Chinese major will be the ones who are serious about the subject, as Mandarin is a very difficult language for English speakers, and, as a result, the new Chinese major is unlikely to channel students from other majors and minors; and 2) the Chinese major will take advantage of the existing resources in the College of Arts and Sciences. In addition, DMLL currently offers majors in Japanese, French, German, and Spanish. The new Chinese major will make the department more balanced in terms of its offering of majors and minors, because there is currently only one major in a non-Western language and culture.

To mount the new Chinese major will require very few short-term resources or costs because, as a major with an interdisciplinary perspective housed in DMLL, it will be supported by streamlining the existing resources in the College, including Modern Languages and Literatures, History, Art History and Art, Anthropology, and Asian Studies. Students of a Chinese major, to fulfill the major requirements, will take core language, literature, and culture courses offered by the faculty in DMLL, and can take related courses as electives from other departments and programs mentioned above. These courses are either already currently offered at CWRU or could be developed by current faculty. Therefore, no additional faculty, staff, graduate student support, office and lab space, or other university resources are currently required for this new major.

The Chinese major may generate income for the University in multiple ways. As mentioned above, there is currently a large and increasing demand among students for Chinese; therefore, the new major will make the Department and the College more attractive in terms of recruitment and admission. Students graduating with a major in Chinese will be much more competitive on the job market. The return for an investment in this new major, therefore, will be considerable. In addition, there are many opportunities for external funding. For example, students studying abroad in China will always have low-cost on-campus boarding; and Chinese consulates and the Confucius Institute usually financially support cultural events on U.S. campuses. Such opportunities will certainly grow in number and scale when connections and collaborations between CWRU and Chinese educational institutions expand and deepen.

3. Requirements and Courses

An examination of the Chinese major at some our peer universities provides us with some ideas regarding the potential structure and offerings of the Chinese major at CWRU. Carnegie Mellon University requires a total of 32-33 credit hours beyond intermediate I, 13-14 of which in intermediate and advanced language training, 4 in linguistics, 3 in history, and 12 in interdisciplinary electives. Emory University requires a total of 38-48 credit hours, including five language courses with no less than 19 credits above 201 up to the 400 level, and four content courses with no less than 14 credits. It should be noted that Carnegie Mellon has five full-time professors and lecturers, and Emory has two professors, six lecturers and instructors, and two visiting teachers from the Confucius Institute. The Chinese major at CWRU would require fewer credit hours than those two programs, but students with a double major in Chinese and another discipline would find themselves competitive and attractive in the job market.

The major (for the B.A.) in Chinese takes a minimum of 35 credit hours to complete:

For students who begin the major at the 200 level, they will be required to take CHIN 201 and 202, CHIN 301 and 302, CHIN 380 and 381, Senior Thesis I and II; four Chinese Literature and Culture courses, two of which may be replaced by other related courses.*

For students who begin the major at the 300 level, they will be required to take CHIN 301 and 302, CHIN 380 and 381, 1 directed reading, Senior Thesis I and II; four Chinese Literature and Culture courses, two of which may be replaced by other related courses.*

* "Other related courses" (see a detailed list in what follows.) could include courses that have significant portion of Chinese components in the fields of Chinese Literature, Culture, Cinema, Theater, Art History, Anthropology, History, and Asian Studies. Students should contact the Chinese faculty representative to discuss if a course could be considered a related course.

Senior Thesis I and II: Students who take Chinese major are required to take these courses under the supervision of their faculty director. They will be expected to write a substantial research paper in English with significant Chinese elements.

Study Abroad: Students may take advantage of a semester or a year of study abroad in mainland China, Taiwan, or Hong Kong. Credits taken at a Chinese university during study abroad can be transferred with evaluation by a faculty advisor.

Courses that are already listed for Chinese

CHIN 101. Elementary Chinese I. 4 Units.
Introductory course in speaking, understanding, reading and writing Chinese. Students are expected to achieve control of the sound system and basic sentence patterns of standard Mandarin Chinese. The course emphasizes speaking and aural comprehension.

CHIN 102. Elementary Chinese II. 4 Units.
Continuation of CHIN 101. Recommended preparation: Consent of department.

CHIN 201. Intermediate Chinese I. 4 Units.
Emphasizes basic structures of standard Mandarin Chinese; helps students improve reading, writing, listening and speaking abilities. Chinese culture, society, and people introduced through supplementary materials and activities. Recommended preparation: CHIN 102 or equivalent.

CHIN 202. Intermediate Chinese II. 4 Units.
Continuation of CHIN 201. Students must use course material offered by the Online Language Learning Center in addition to class meetings. Recommended preparation: CHIN 201.

CHIN 301. Advanced Chinese I. 4 Units.
Students work to achieve fluency in listening, speaking, reading and writing. Students must attend the Language Resource Center in addition to class meetings. Recommended preparation: CHIN 202 or equivalent.

CHIN 302. Advanced Chinese II. 4 Units.
Continuation of CHIN 301.

CHIN 303. Topics in Chinese I. 3 Units.
Work with authentic materials to improve proficiency in Chinese. Emphasis on contemporary culture of China. Recommended preparation: CHIN 302.

CHIN 304. Topics in Chinese II. 3 Units.
Work with authentic materials to improve proficiency in Chinese. Emphasis on contemporary culture of China. Recommended preparation: CHIN 303.

CHIN 315. Business Chinese. 3 Units.
The Business Chinese course is designed to enhance students' listening, speaking, reading, and writing skills in Chinese through a variety of activities. It will focus on China's contemporary international business issues and practices. At the end of the semester, the students will have a basic knowledge of China's socio-cultural values, trade policy, and role in the world economy after its entry into the WTO, and the ability to hold conversations on selected business topics with

correct business vocabulary and in a culturally appropriate manner; to read business-related materials; and to write basic business communications including letters, reports and resumes. It is taught in Chinese and English. Prereq: CHIN 202 or equivalent.

CHIN 396. Senior Capstone - Chinese. 3 Units. (will be reactived)
The Senior Capstone in Chinese is an independent study project chosen in consultation with a capstone advisor. The capstone project should reflect both the student's interest within Chinese and the courses he or she has taken to fulfill the graduation requirement. The project requires independent research using an approved bibliography and plan of action. In addition to written research, the student will also present the capstone project in a public forum that is agreed upon by the project advisor and the student. Prereq: Senior status required.

CHIN 399. Independent Study. 1 - 3 Unit.
Directed study for those students who have progressed beyond available course offerings. Prereq: CHIN 202.

"Topics in Chinese" (CHIN 303, 304) will be redesigned as one general course, in which authentic Chinese materials are not required. This course may be repeated for up to 3 times with credits. "Business in Chinese" (CHIN 315, 415) will be offered at 300-level when a suitable instructor is available.

New courses, which have been proposed, in addition to those already listed for Chinese:

CHIN 240. Modern Chinese Literature in Translation. 3 Units.
This course examines Modern Chinese Literature from the beginning of the 20th century to postsocialist period. Taught in English.

CHIN 250. Classical Chinese Literature in Translation. 3 Units.
In this course, students will have an opportunity to read classical texts dated back as early as to the 6th century B.C., to pre-modern literature in late imperial period of the 19th century. Taught in English.

CHIN 320. Chinese Popular Culture. 3 Units.
This course examines Chinese--including Mainland China, Hong Kong, Taiwan, and the Chinese Diaspora--popular culture, including popular literature, film, music, TV programs, posters, and the Internet.

CHIN 330. Chinese Cinema. 3 Units.

This course explores critical issues in Chinese cinema. Students will study Chinese films ranging from early productions in the 1920s to contemporary ones.

CHIN 340: China in Modernization. 3 Units.
This seminar introduces students to the recent modernization in China, focusing on the way the socioeconomic changes as a result of revolution, economic reform, and globalization, to meet the challenges of economic, social, and political, environmental, and ecological sustainability in the country and in the world.

CHIN 350: China and Green Transformation. 3 Units.
This seminar introduces students to the recent major green transformation in China and elsewhere in the world, focusing on the way the green economic changes took place in response to financial crisis, climate change, energy insecurity, and international competition. The seminar will also assess the impacts of various aspects of green transformation on today's and future world.

CHIN 380: Contemporary Chinese Texts I. 3 Units.
This course is designed for students who have completed CHIN 302 or equivalent. It provides intensive trainings in communicational skills by reading, watching, and discussing a variety of texts. Prereq: CHIN 302 or equivalent.

CHIN 381: Contemporary Chinese Texts II. 3 Units.
This course is a continuation of CHIN 380. It provides intensive trainings in communicational skills by reading, watching, and discussing a variety of texts. Prereq: CHIN 380 or equivalent.

CHIN 397: Senior Thesis I. 3 Units.
This course is the first one of the two-semester thesis-writing course series required for senior majors, which leads to a substantial research paper in English with significant Chinese elements. Students take this course under the supervision of their faculty director. Permit required.

CHIN 398: Senior Thesis II. 3 Units.
Continuation of CHIN 397. Limited to senior majors. Prereq: CHIN 397.

China-related courses offered in other departments and programs:

ASIA 133. Introduction to Chinese History and Civilization. 3 Units.
This course explains the continuities and discontinuities in the history of China by stressing the development and distinctive adaptations of cultural, religious, and political patterns from the origins of the Chinese civilization to the present. By focusing on major cultural, socioeconomic, and

political issues such as Confucianism, Buddhism, trade relations, imperialism, and intellectual discourse in the overall Asian context (with particular reference to Korea and Japan), we discuss the historical development of China and its situation on entering the 21st century. Taking into account the key historical events in the last century, we examine the emergence of China as a modern nation-state and the fundamental transformation of Chinese society in the postwar period. Offered as ASIA 133 and HSTY 133. Counts for CAS Global & Cultural Diversity Requirement.

ASIA 235. Asian Cinema and Drama. 3 Units.
Introduction to major Asian film directors and major traditional theatrical schools of India, Java/Bali, China, and Japan. Focus on the influence of traditional dramatic forms on contemporary film directors. Development of skills in cross-cultural analysis and comparative aesthetics. Offered as ASIA 235 and WLIT 235. Counts for CAS Global & Cultural Diversity Requirement.

ASIA 288. Imperial China: The Great Qing. 3 Units.
This course is an introduction to the history of Imperial China, from the fall of the Ming Dynasty in 1644 to the creation of the Chinese republic in 1912. We will explore the major historical transformations (political, economic, social, and cultural) of the last imperial dynasty, the Qing (1644-1911), and develop an understanding of the major social, political, economic, and intellectual cultural forces shaping the formation of modern China. Contrary to commonly-held ideas in both West and in China that traditional Chinese society was timeless or stagnant, historians now see dramatic and significant changes during this period--to the economy, to gender relations, to religion, and to many other aspects of life. This course surveys the social, political, economic, and cultural history of this era, with emphasis on recent research. The main goals of the course will be to acquaint students with the key changes and to show the interplay between economic, social, and cultural changes on the one hand and political developments on the other. By the end of the semester you should have a good sense of how Chinese society was transformed over the course of the 17th through early 20th centuries. The topics we will discuss include urbanization and commerce; gender, family and kinship; education and the examination system; opium and free trade; and ethnicity and nationalism. Offered as ASIA 288 and HSTY 288. Counts for CAS Global & Cultural Diversity Requirement.

ASIA 289. History of Twentieth Century China. 3 Units.
Completes a two-term sequence of the Chinese history survey, although HSTY 288 is not a prerequisite for this course. Beginning with the First Sino-Japanese War (1895), we review the historical development of intellectual discourse, public reaction, and political protest in later Imperial China through the creation of the People's Republic in 1949 forward to contemporary times. In contrast to the conventional description of China from a Western point of view, this course tries to explain the emergence of modern China in the context of its intellectual, political, and socio-economic transformation as experienced by Chinese in the late 19th and into the 20th

century. By discussing the influence of the West, domestic rebellions, and political radicalism, we examine how the Chinese state and society interacted in search for modernization and reforms, how these reforms were continued during the Republican period, and to what extent historical patterns can be identified in China's present-day development. Offered as ASIA 289 and HSTY 289. Counts for CAS Global & Cultural Diversity Requirement.

ANTH 353. Chinese Culture and Society. 3 Units.
Focuses on Chinese cultural and social institutions during the Maoist and post-Maoist eras. Topics include ideology, economics, politics, religion, family life, and popular culture. Recommended preparation: ANTH 102. Offered as ANTH 353 and ANTH 453. Counts for CAS Global & Cultural Diversity Requirement.

ANTH 354. Health and Healing in East Asia. 3 Units.
This course examines the illness experiences and the healing practices in East Asia. After introducing the anthropological approaches to the study of medicine, this course will explore the practices of traditional medical knowledge, mental health, infectious disease, environmental health, and biotechnology and ethics. By delving into the illness experiences and the healing practices in East Asia, the course will discuss issues related to medical pluralism, health inequality, social stigmatization, and bioethics.

ARTH 203. The Arts of Asia. 3 Units.
A survey of Japanese and Chinese art from the Bronze Age to the 18th century, with particular emphasis on objects in the Cleveland Museum of Art. The relationship of art works to Buddhism and Hinduism is explored along with cultural rituals, ceremonies, and traditions. Counts for CAS Global & Cultural Diversity Requirement.

ARTH 204. Arts of East Asia. 3 Units.
A survey of the major developments in the arts of East Asia from the bronze age to the present in a wide range of media, including sculpture, painting, ceramics, architecture, calligraphy, prints, and installations. The course explores factors behind the making of works of art, including social, political and religious meanings, while examining the historical contexts for the arts of China, Japan, and Korea. Attention will be paid to the relationship between art and the ideas and practices of Buddhism, Shinto, Daoism, and Confucianism. Our topics include: secular and sacred narrative scroll painting, ceramics and tea culture, landscape painting, Buddhist cave temples, ancient bronzes, mortuary art, expressions of resistance and reclusion in visual arts, cross-cultural exchanges within the region and with the West, and the role of East Asian artists in the contemporary international art market. Counts for CAS Global & Cultural Diversity Requirement.

ARTH 307. Arts of China. 3 Units.

A survey of the major developments in Chinese art from the Neolithic period to the present, including archaeological discoveries, bronzes, calligraphy, painting, sculpture, ceramics, architecture, performance art, and installations. Among topics covered are: ancient funerary art and tombs; painting and sculpture of early Buddhist grottoes; landscape painting; art commissioned and collected by the imperial court; literati painting and calligraphy; public and private art associated with Daoist; Buddhist, and Confucian religious practices and sites; art produced during periods of non-Chinese rule under the Tanguts, Mongols, and Manchus; foreign influences on Chinese artists; and the role of Chinese artists in the contemporary international art market. The course explores factors behind the creation and reception of works of art, including social, political and religious meanings, while examining the historical contexts for and artistic traditions of the visual culture of China. Recommended preparation: Students with some Asian studies, Chinese language, Chinese history, or other appropriate background. Offered as ARTH 307 and ARTH 407. Prereq: One 100- or 200-level ARTH course or requisites not met permission from instructor.

ARTH 340. Issues in the Art of China. 3 Units.
This is a topics course. Each offering will focus on a specific topic within the area of Chinese art. Sample topics may include: Women painters in Beijing, Modern Artists in China-1980-Present, Shang Dynasty Tombs, Yuan Dynasty Buddhist Art. Lectures, discussions, and reports. Offered as ARTH 340 and ARTH 440. Counts for CAS Global & Cultural Diversity Requirement.

HSTY 133. Introduction to Chinese History and Civilization. 3 Units.
This course explains the continuities and discontinuities in the history of China by stressing the development and distinctive adaptations of cultural, religious, and political patterns from the origins of the Chinese civilization to the present. By focusing on major cultural, socioeconomic, and political issues such as Confucianism, Buddhism, trade relations, imperialism, and intellectual discourse in the overall Asian context (with particular reference to Korea and Japan), we discuss the historical development of China and its situation on entering the 21st century. Taking into account the key historical events in the last century, we examine the emergence of China as a modern nation-state and the fundamental transformation of Chinese society in the postwar period. Offered as ASIA 133 and HSTY 133. Counts for CAS Global & Cultural Diversity Requirement.

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This course is an introduction to the history of Imperial China, from the fall of the Ming Dynasty in 1644 to the creation of the Chinese republic in 1912. We will explore the major historical transformations (political, economic, social, and cultural) of the last imperial dynasty, the Qing (1644-1911), and develop an understanding of the major social, political, economic, and intellectual cultural forces shaping the formation of modern China. Contrary to commonly-held ideas in both West and in China that traditional Chinese society was timeless or stagnant, historians now see dramatic and significant changes during this period--to the economy, to gender relations,

to religion, and to many other aspects of life. This course surveys the social, political, economic, and cultural history of this era, with emphasis on recent research. The main goals of the course will be to acquaint students with the key changes and to show the interplay between economic, social, and cultural changes on the one hand and political developments on the other. By the end of the semester you should have a good sense of how Chinese society was transformed over the course of the 17th through early 20th centuries. The topics we will discuss include urbanization and commerce; gender, family and kinship; education and the examination system; opium and free trade; and ethnicity and nationalism. Offered as ASIA 288 and HSTY 288. Counts for CAS Global & Cultural Diversity Requirement.

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Completes a two-term sequence of the Chinese history survey, although HSTY 288 is not a prerequisite for this course. Beginning with the First Sino-Japanese War (1895), we review the historical development of intellectual discourse, public reaction, and political protest in later Imperial China through the creation of the People's Republic in 1949 forward to contemporary times. In contrast to the conventional description of China from a Western point of view, this course tries to explain the emergence of modern China in the context of its intellectual, political, and socio-economic transformation as experienced by Chinese in the late 19th and into the 20th century. By discussing the influence of the West, domestic rebellions, and political radicalism, we examine how the Chinese state and society interacted in search for modernization and reforms, how these reforms were continued during the Republican period, and to what extent historical patterns can be identified in China's present-day development. Offered as ASIA 289 and HSTY 289. Counts for CAS Global & Cultural Diversity Requirement.

HSTY 383. Readings in PRC History. 3 Units.
This course examines the historiography of several key issues in the history of the People's Republic of China. Although the emphasis will be to explore at greater length and greater detail specific topics in post-1949 Chinese social, cultural, and political history, some topics will incorporate key historiographic works addressing the pre-1949 period as a point of comparison. We will explore the major historical transformations that led to a political break from China's imperial past, and we will examine both the continuities and discontinuities shaping China's experience as a modern nation during the latter half of the 20th century. Major themes covered include: the origins of the Chinese revolution, the Great Leap Forward, Cultural Revolution, rural-urban divide, the one-child policy, socialism with Chinese characteristics, et al. Counts for CAS Global & Cultural Diversity Requirement.

HSTY 385. Readings in Society and Culture in Modern Chinese History. 3 Units.
The primary goal of this course is to provide students an opportunity to explore at greater length specific topics in Chinese social and cultural history. The period covered by the assigned readings

roughly spans the late eighteenth century through the first half of the twentieth century. Readings will cover a wide range of topical themes, including childhood, gender and sexuality, urban life, print media, religion, and the environment. Offered as HSTY 385 and HSTY 485. Counts for CAS Global & Cultural Diversity Requirement.

WLIT 235. Asian Cinema and Drama. 3 Units.
Introduction to major Asian film directors and major traditional theatrical schools of India, Java/Bali, China, and Japan. Focus on the influence of traditional dramatic forms on contemporary film directors. Development of skills in cross-cultural analysis and comparative aesthetics. Offered as ASIA 235 and WLIT 235. Counts for CAS Global & Cultural Diversity Requirement.

For the reasons outlined above, I believe it is a good time to establish a Major in Chinese at CWRU, and I hope to receive your support.

CWRU **Action Form for Majors/Minors/Programs/Sequences/Degrees** Docket # _____
(instructions on back)

College/School: _____College of Arts and Sciences._____
Department: _____

PROPOSED: _____ major
_____ minor
_____ program
_____ sequence
__X_ degree

APPROVED
A&S Cur 3-18-16
A&S Exec. Comm 3-18-16
Faculty of the College 3-25-16

TITLE: _____Master of Arts Degree in Military Ethics (/Interdisciplinary MA)_____
_____

EFFECTIVE: __FALL___ (semester) ___2017__ (year)

DESCRIPTION:

Military ethics focuses on the core values and moral principles that collectively govern the men and women serving in the military forces of nations around the world, as members of what is sometimes termed the "*military profession*" or "the profession of arms." The ethical foundations that define the profession of arms have developed over millennia from the shared values and experiences, unique role responsibilities, and reflections of members of the profession on their own practices – eventually coming to serve as the basis for various warrior codes and the Law of Armed Conflict (LOAC). Military ethics is a broadly interdisciplinary study, incorporating concerns about the conduct of war, decisions on how and when to engage in military operations, and issues relating to the moral psychology and care of those who serve and of veterans of military service. Traditional just war theory also plays a key role in *international relations* (political and moral philosophy governing when the use of military force is justified for the resolution of international conflicts) and *international law* (including LOAC and international humanitarian law).

The curriculum is interdisciplinary, with a foundation in moral and political philosophy. Over a 12-15 month program (designed to facilitate the enrollment of military personnel on educational assignment), students will study foundational topics in moral and political philosophy, together with advanced core and elective topics in military and professional ethics, military medical ethics, military law, ethical leadership, and other related subjects (including optional supplemental electives in areas such as religious studies, history, literature, journalism, and the arts). Each student will complete a minimum of 30 credit hours, including a six-credit "capstone course" to presumably be completed during the summer term following a full academic year of coursework. The capstone course will feature a summative project designed to integrate their common studies, but tailored to their individual future interests in teaching, further graduate study, or employment in public policy or foreign affairs.

This program requires 12-15 months residence, with the completion of five required Philosophy courses, including the capstone course, and an additional four elective courses from the College of Arts and Sciences (CAS) and the School of Law (LAW). A Master's capstone project culminating in a paper is required, involving both academic research and fieldwork, integrated with the degree-candidate's professional experience or interest. The outline of the project must be presented and defended by the spring recess of the candidate's second resident semester, and the project itself completed over the following summer term, for graduation by 30 September of the year following matriculation. The core required courses will be taken by all degree candidates, while the selection of topic for the Master's capstone project will dictate the selection of relevant elective courses by each candidate (in consultation with program faculty) to create an appropriate concentration of study for the capstone.*

**for additional details, please see full program proposal*

Is this major/minor/program/sequence/degree: __X_ new
_____ modification
_____ replacement

If modification or replacement please elaborate: _____

Does this change in major/minor/program/sequence/degree involve other departments? _X__Yes _____No

If yes, which departments? ____Philosophy, Religious Studies, Art History, Classics, Political Science, and History from the College of Arts and Sciences, and the CWRU School of Law_____

Contact person/committee: ____Shannon E. French (Philosophy/Inamori Center)_____

SIGNATURES:**
DATE
Department Curriculum Chair(s)/Program Directors: _____
Department Chair: ___attached 03-2016
College/School Curriculum Committee Chair: N. Tobin/cas 3-18-16
College/School Dean(s): J. Rosen/cas C Rozek/cas 3-18-16
FSCUE Curriculum Subcommittee Chair: _____

***Please see attached letters of support for signatures.*

File copy sent to: ____Registrar ✓Office of ~~Undergraduate Studies~~/Graduate Studies - C. Rozek
✓Other: Faculty Senate Graduate Comm - P. MacDonald

2013.03.24
Cyrus C Taylor
Dean, College of Arts and Sciences

Shannon French <sef37@case.edu>

Fwd: Request for message of support for proposed new MA in Military Ethics

Shannon French <shannon.french@case.edu> Mon, Mar 14, 2016 at 1:34 PM
To: Shannon French <sef37@case.edu>

---------- Forwarded message ----------
From: **Laura Hengehold** <leh7@case.edu>
Date: Sun, Mar 13, 2016 at 9:06 PM
Subject: Re: Request for message of support for proposed new MA in Military Ethics
To: Shannon French <shannon.french@case.edu>

Dear Shannon:

I am writing to express my support for your proposal for a new Master of Arts degree program in Military Ethics and approve the inclusion of the Department of Philosophy courses that you have listed as electives. Intellectually and programmatically I think this is an interesting project and represents a good expansion of our department's activities. It also brings together some of the most unique and exciting activities around political studies at Case for a very practical goal. I am not sure how many Case philosophy students will choose it for subsequent masters level study, but I can imagine that quite a few International Studies BA majors would do so. Moreover, it should foster interdisciplinary research in related fields and the university's national and international profile, quite apart from the specific benefit to students.

We will need to meet to go over the details of how existing tracks/courses can be supported while offering the required courses for this MA program. In the recent past, the elective Social and Political Philosophy has been offered on average once every three semesters; the proposed required course PHIL 305/405 Ethics has been offered once a year and the proposed required course PHIL 384/484 Ethics and Public Policy has been offered once this past fall. I am very willing to increase frequency of PHIL 305 Ethics and I think the entire series of courses is feasible.

Sincerely,

Laura Hengehold

--
Laura Hengehold
Associate Professor and Chair, Philosophy
Case Western Reserve University
10900 Euclid Ave
Cleveland, OH 44106
216-368-2633
leh7@case.edu

Shannon French <sef37@case.edu>

MA in Military Ethics--sign off for art history

Catherine Scallen <cbs2@case.edu> Wed, Mar 2, 2016 at 11:05 AM
To: Shannon French <sef37@case.edu>

Dear Shannon:

I am writing to express my support for your proposal for a new Master of Art degree program in Military Ethics and approve the inclusion of the Department of Art History and Art course that you have listed as an elective. Maggie Popkin, who will teach Roman Representations of War on the 300 and 400 levels, and I are indeed happy to have her course included in this new MA program.

We appreciate the interdisciplinary aproach to a very complex subject.

A Military Ethics Master's degree program will not affect the Department of Art History and Art's allocation of resources or priorities. It will likely attract a new group of students to Prof. Popkin's course and spread word about this deeply interesting offering. It is possible too, that we our department could co-sponsor speakers relevant to the MA in Military Ethics and to the art history program.

Regards, Catherine

--
Catherine B. Scallen
Chair, Department of Art History and Art and
Andrew W. Mellon Associate Professor in the Humanities
Case Western Reserve University
216-368-2383
catherine.scallen@case.edu

CASE WESTERN RESERVE UNIVERSITY

Shannon French <sef37@case.edu>

(no subject)

Paul Iversen <paul.iversen@cwru.edu> Tue, Mar 15, 2016 at 11:50 AM
To: Shannon French <sef37@case.edu>

Dear Shannon,

I am happy to offer support for the proposed MA in Military Ethics and note that Classics would be very interested in participating in a course on this subject. Right now we already offer a course on Greek Tragedy in English translation (CLSC-WLIT 316/416) taught by Timothy Wutrich that frequently deals with tragedies focused on heroes' reactions to war. In this course he uses Shay's analysis of Homer and Tragedy as one way of reading the plays. In addition, Timothy has been involved in the NEH Ancient Greeks/Modern Lives program (see http://ancientgreeksmodernlives.org), which has successfully used Greek drama as a springboard for modern soldiers' experiences in war. So he's very much approaching Tragedy from this angle. Of course we'd also be happy to talk about perhaps designing a required course.

Let me know if I can be of further help.

All the best,

--
Paul A. Iversen
Chair, Associate Professor
Department of Classics
Case Western Reserve University

CASE WESTERN RESERVE UNIVERSITY

Shannon French <sef37@case.edu>

Formal Support for the Proposed MA in Military Ethics

Karen Beckwith <klbeckwith50@gmail.com> Tue, Mar 15, 2016 at 12:21 PM
To: Shannon French <sef37@case.edu>
Cc: Kathryn Lavelle <kcl6@case.edu>, Pete Moore <pwm10@case.edu>, Elliot Posner <eap26@case.edu>, Joseph White <jxw87@case.edu>

Dear Shannon

Thank you for your request to write a letter of support for the proposed MA in Military Ethics. I support the proposed MA in principle and I write in support of the new MA. I approve the inclusion of the Department of Political Science courses that you have listed as electives, with the exception of POSC380A (see below).

In the remainder of this reply, I address some limitations that the MA in Military Ethics may (but not necessarily will) face in regard to the POSC courses offered as electives in the program.

The MA in Military Ethics has the potential of involving five of the nine faculty in our department (more than half) in offering courses currently in our curriculum. Our course enrollments are somewhat modest, and we have no free-standing graduate courses (all our graduate-level courses are offered in conjunction with their undergraduate version). We have room in our course enrollments to accommodate a small number of graduate students in each.

The courses in our department that could be included in the proposed MA program are:

POSC470H - China's Foreign Policy

POSC 473 – Politics of the European Union

POSC 479 – Introduction to Middle East Politics

POSC 460 – Revolts and Revolutions in Global Perspective

POSC 464 – Dictatorship and Democracy in Modern Latin America

POSC 476 –United States Foreign Policy

Note that at this point POSC 380A - State and War in Africa and the Middle East is only offered at the undergraduate level and has a prequisite course, POSC379. Arrangements will be necessary to address any future inclusion of POSC380A at the level of a graduate course, and I have not included it in the listing, above.

Some of these courses are offered more regularly than are others. For example, POSC476 has not been offered since Spring 2014 and is not scheduled to be offered in Fall 2016. In addition, POSC470H is not offered by a regular faculty member, but by a visiting assistant professor, and it is not clear that we will be able to rehire or to replace him. Inability to do so would mean the course could not be offered. Three of the six courses listed are taught by Professor Pete Moore, on whose shoulders the responsibility of POSC teaching in the MA in Military Ethics will fall most heavily. Professor Moore is aware of the potential demands on his teaching, and he is willing to support the MA in Military Ethics by including its students in the courses listed above; Professors Lavelle (POSC476) and Professor Posner (POSC473) are similarly willing to support the proposed MA in Military Ethics, in terms of these two courses.

I raise these issues to alert you to the potential difficulties of offering some of the these elective courses regularly (or, in the case of POSC470H, at all). I do so in the context of my support for the MA in Military Ethics. Please let me know how we can be helpful as this proposal progresses.

Sincerely,

Karen Beckwith

CASE WESTERN RESERVE UNIVERSITY

Shannon French <sef37@case.edu>

MA in Military Ethics

Deepak Sarma <dxs163@case.edu> Wed, Mar 9, 2016 at 5:18 PM
To: Shannon French <sef37@case.edu>

Dear Shannon:

I am writing to express my support for your proposal for a new Master of Art degree program in Military Ethics. I also wanted to let you know that I approve the inclusion of the Department of Religious Studies courses that you have listed as electives, such as "RLGN 102: Introduction to the Study of Religion," "RLGN 223: Religious Roots of Conflict in the Middle East" and "RLGN 353. Hindu and Jain Bioethics." In this connection, a Military Ethics Master's degree program will not affect the Department of Religious Studies' allocation of resources or priorities.

I believe this is a promising area of study and includes interesting new course. I moreover appreciate the interdisciplinary approach to a very complex subject. I've already spoken to a few students who expressed interest in the program.

Sincerely,

Deepak

Dr. Deepak Sarma

Professor of Religious Studies
Acting Chair of the Department of Religious Studies

Professor of Bioethics (secondary appointment)
School of Medicine, Case Western Reserve University

Curatorial Consultant, Department of Asian Art
Cleveland Museum of Art

Mailing Address:
Department of Religious Studies
Tomlinson Hall
2121 MLK Jr. Drive
Case Western Reserve University
Cleveland, OH 44106-7112

office: 216-368-4790
deepak.sarma@case.edu

deepaksarma.com

SCHOOL OF LAW
CASE WESTERN RESERVE UNIVERSITY

Jessica W. Berg, Dean
Tom J.E. and Bette Lou Walker
Professor of Law

Michael P. Scharf, Dean
Joseph C. Hostetler - BakerHostetler
Professor of Law

11075 East Boulevard
Cleveland, Ohio 44106-7148

phone 216.368.3283
fax 216.368.1277
lawdeans@case.edu

law.case.edu

March 10, 2016

Dear Professor French,

We are writing to express our support for your proposal for a new Master of Arts degree program in Military Ethics and approve the inclusion of the School of Law courses that you have listed as electives. A selection of these courses are generally offered every year, and students in the program should have a variety of electives from which to choose. In addition, we look forward to collaborating with you on the development of new courses, including: "Military Conflicts, Ethics, and International Law" and "Military Medical Ethics."

Your proposal reflects our collective agreement to share tuition revenue related to these course offerings.

We appreciate the interdisciplinary approach to a very complex subject, which will provide an excellent grounding for students interested in this area. The program is sure to appeal to a broad audience and will be a strong addition to the MA offerings at Case Western Reserve University.

We anticipate additional opportunities to collaborate further.

Sincerely,

Jessica Berg
Co-Dean

Michael Scharf
Co-Dean

I. Introduction

a. Degree Title: **Master of Arts Degree in Military Ethics (Interdisciplinary MA)**

b. Start Date: ***Fall, 2017***

c. ***Focus:*** This MA program is aimed at individuals interested in learning more about this complex academic subfield that has roots that reach back to the work of Greco-Roman and medieval scholars, but is recently resurgent, thanks in part to media attention given to emerging military technologies, such as drones, human enhancement, and cyber conflict. Undergraduates seeking an advanced degree post-graduation will be expected to elect this program. (We may also seek additional approvals for this program to be offered through the Integrated Graduate Studies program and for approval for graduate/professional students to elect to pursue an MA in Military Ethics and a JD or LLM at the same time, as part of a dual degree program of study. It will also appeal to mid-rank military officers from all branches of the service pursuing a graduate degree in order to achieve senior rank, especially those "deep selected" from recent deployment to teach cadets and midshipmen at federal military service academies, or to command ROTC units in colleges and universities (in which a capstone course in military ethics is a required final course, taught by the ROTC commanding officer).

d. ***Description:*** **Military ethics** focuses on the core values and moral principles that collectively govern the men and women serving in the military forces of nations around the world, as members of what is sometimes termed the "*military profession*" or "the profession of arms." The ethical foundations that define the profession of arms have developed over millennia from the shared values and experiences, unique role responsibilities, and reflections of members of the profession on their own practices – eventually coming to serve as the basis for various warrior codes and the Law of Armed Conflict (LOAC). Military ethics is a broadly interdisciplinary study, incorporating concerns about the conduct of war, decisions on how and when to engage in military operations, and issues relating to the moral psychology and care of those who serve and of veterans of military service. Traditional just war theory also plays a key role in *international relations* (political and moral philosophy governing when the use of military force is justified for the resolution of international conflicts) and *international law* (including LOAC and international humanitarian law).

II. Proposed curriculum

a. Description of the proposed curriculum: The curriculum is interdisciplinary, with a foundation in moral and political philosophy and international relations. Over a 12-15 month program (designed to facilitate the enrollment of military personnel on educational assignment), students will study foundational topics in moral and political philosophy, together with advanced core and elective topics in military and professional ethics, military medical ethics, military law,

ethical leadership, and other related subjects (including optional supplemental electives in areas such as religious studies, history, literature, journalism, and the arts). Each student will complete a minimum of 30 credit hours, including a six-credit "capstone course" to presumably be completed during the summer term following a full academic year of coursework. The capstone course will feature a summative project designed to integrate their common studies, but tailored to their individual future interests in teaching, further graduate study, or employment in public policy or foreign affairs, and may produce outcomes other than a traditional paper/thesis (such as the detailed and well defended design of a military ethics training/education curriculum).

b. Outline of requirements: This program requires 12-15 months residence, with the completion of five required Philosophy courses, including the capstone course, and an additional four elective courses from the College of Arts and Sciences (CAS) and the School of Law chosen from the list of offerings below. A Master's capstone project culminating in a paper is required, involving both academic research and fieldwork, integrated with the degree-candidate's professional experience or interest. The outline of the project must be presented and defended by the spring recess of the candidate's second resident semester, and the project itself completed over the following summer term, for graduation in August the year following matriculation. If special circumstances, such as military deployment, prevent a student from completing the program in the intended timeframe, the academic advisor will work with him/her to create an alternative schedule to allow completion of the degree, which may necessitate the capstone course being offered in the fall or spring semesters, as well as in the summer. Other students may also elect to take more than 15 months to complete the program, if permitted by Graduate Studies. The program will follow all policies and procedures of the CWRU School of Graduate Studies.

The core required will be taken by all degree candidates, while the selection of topic for the Master's capstone project will dictate the selection of relevant elective courses by each candidate (in consultation with program faculty) to create an appropriate concentration of study for the capstone project (e.g., military medicine and ethics; military law and ethics; psychology, history, or literature). *Here is an example of a possible course of study:*

Sample Program of Study and Time to Degree

<u>Fall 2017 (12 credits)</u>

- PHIL 417 (required)
- PHIL 484 (required)
- POSC 479
- LAWS 5111

<u>Spring 2018 (12 credits)</u>

- PHIL 405 (required)
- PHIL 4XX (required)
- ARTH 435
- LAWS 5116

Summer 2018 (6 credits)

- PHIL 501 (required)

The following courses are proposed as required or elective:

Proposed Required Courses:

- PHIL 405 – Ethics
- PHIL 417 – War and Morality
- PHIL 4XX – Military Conflicts, Ethics, and International Law: this is a new "flipped" hybrid course that will feature pre-taped video lectures by international experts in the field of military ethics, online assignments drawn both from CWRU Dean Michael Scharf's International Law MOOC, and from the new Military Ethics MOOC available from King's College London/UK Defense Academy, of which the Inamori Center is a co-sponsor, along with discussion sections and teaching by the Visiting Distinguished/Emerging Inamori Scholar, who will also grade the course assignments, reviewed by the instructor of record, which will be a regular CWRU faculty member such as Shannon E. French.
- PHIL 484 – Ethics and Public Policy
- PHIL 501 – Ethics Capstone (e.g., Teaching for Military Academies, or Program development and leadership for Compliance Officers and policy personnel) culminating in a paper or project.

Supplemental Elective Courses (confirmed as regularly offered and available)

College of Arts and Sciences

- PHIL 416 – African Political Thought
- PHIL 422 – The Science of Happiness (Ethics elective)
- PHIL 430 – Special Topics in Ethics
- PHIL 4XX – Neuroethics: this has been taught as a 430 special topics course, but will be submitted as a regular course to be taught beginning in Spring 2017.
- PHIL 434 – Political and Social Philosophy
- PHIL/LAWS 450 – Military Medical Ethics: this is a new seminar to be developed in partnership with Prof. Max Mehlman.
- ARTH 435 – Issues in Ancient Art: The Art of War in Ancient Rome
- CLSC 416 – Greek Tragedy in English Translation
- POSC 470H – China's Foreign Policy
- POSC 473 – Politics of the European Union
- POSC 479 – Introduction to Middle East Politics
- POSC 460 – Revolts and Revolutions in Global Perspective
- POSC 464 – Dictatorship and Democracy in Modern Latin America
- POSC 476 –United States Foreign Policy
- RLGN 460 – Intro to the Qur'an
- RLGN 453 – Hindu and Jain Bioethics

School of Law

- LAWS 4101 - International Law
- LAWS 4105 - Fundamentals of International Law
- LAWS 5113 - Counterterrorism Law
- LAWS 5111 - Admiralty Law
- LAWS 5116 - International Human Rights
- LAWS 5118 - War Crimes Research Lab
- LAWS 5136 - International Humanitarian Law
- LAWS 5001 - Contemporary Issues in International and Comparative Law: IP/Human Rights

At this time, the program is designed and proposed based on the above courses in the College of Arts and Sciences and in the School of Law. It is envisioned to eventually incorporate additional courses from the CAS and LAW, as well as courses from the Schools of Management and Medicine.

III. Faculty and department information

a. ***Faculty sponsor and department****:* Shannon E. French, Department of Philosophy and the Inamori International Center for Ethics and Excellence.

b. ***Other CAS departments, CWRU schools, or administrative offices:*** This interdisciplinary MA utilizes the expertise in this field already present at CWRU, drawing primarily from the faculty of the College of Arts and Sciences and the School of Law. CAS participating departments and faculty include Philosophy, Religious Studies, Political Science, Art History, and Classics.

CWRU has a well-established positive reputation in Military Ethics, thanks to the work of scholars such as the Law School's Dean Michael Scharf (known worldwide for his vital work with the International Criminal Court to aid in the identification and prosecution of war criminals) and CAS's Inamori Professor in Ethics, Shannon French (whose original work on warrior codes is now canon in the field and who has worked for the US Navy, Marine Corps, and most recently, Army to define and educate officers and troops on warrior values). The College faculty also includes Anthony Jack, who has co-authored recent work with French on dehumanization and neuroethics in a military context and co-presented sessions at two of the most prestigious Military Ethics global conferences, and a wide range of expert scholars who offer courses that cover relevant topics in military history, international relations, human rights, comparative religion and even wartime journalism (from the Pulitzer Prize winning Prof. Jim Sheeler). CWRU Law Professor Max Mehlman has become an expert on military bioethics and won an NIH grant to study the ethics of bio-enhancement in the military.

In 2010, the Inamori Center hosted the International Peace and War Summit, which had participants from 15 countries and included CAS faculty such as Profs Laura Hengehold, Gilbert Doho, Jeremy Bendik-Keymer; Engineering's Jim McGuffin-Cawley; and many others. Starting in 2016, CWRU will become the host institution for ISME – the International Society for Military Ethics. In addition, the Inamori Center is a member of CETMONS (Consortium on Ethics,

Emerging Technology, Military Operations, and National Security) and has become a founding member of the new international consortium The Compass Group, established to grow and enhance the academic study of applied military ethics around the globe.

c. Describe administrative arrangements for the initiative: This program will be administered jointly by the College of Arts and Sciences and the Inamori Center. The degree and administrative support will be housed in the Department of Philosophy. The Inamori Center Director, together with staff support and a committee of CWRU faculty, will also help coordinate each year's visiting scholar, review of applications, advising of MA participants, and supervision of capstone projects.

d. How is the proposed initiative important to the CAS and the involved CAS departments? This program increases enrollment and generates important new tuition revenue in CAS and the involved departments and focuses national interest on a unique program utilizing the expertise of the College and the wider university. In particular, the new MA supports the core mission of the Inamori Center for Ethics and Excellence in CAS to promote ethical leadership. Instruction in Military Ethics benefits military and political leaders and leads to better-informed citizens/voters. Military Ethics covers a wide swath of global issues in ethics, including human rights, humanitarian intervention, transitional justice, and the moral foundations of sustainable peace. This would also tie in perfectly with the research efforts of the center and create cohorts of graduate students to participate in and help advance that research.

e. What is the relationship between the proposed initiative and the involved CAS departments' current programs (undergraduate and/or graduate)? This program will draw from courses already in existence in several CAS departments, such as Philosophy, Political Science, Art History, Classics, Religious Studies, etc. Preliminary conversations with faculty have taken place, but further and more formal conversations need to be had with the Chairs of all the relevant departments to see how this program can integrate with and benefit their existing programs. Our hope is that the MA will draw a valuable but not overwhelming number of additional students into CAS courses that will be most welcome and will add to the diversity of perspectives in those classrooms. There is currently no graduate program in the Philosophy Department, from which the majority of the required courses will originate, so the program will not draw any resources away from existing programs but may provide the structure and impetus to build additional programs in the future.

f. What is the relationship between the proposed initiative and the involved CWRU schools' (non--- CAS) current programs (undergraduate and/or graduate)? This program will incorporate as electives courses from the School of Law, and hopefully, in time, the Weatherhead School of Management and the School of Medicine. We have had an enthusiastic response from the co-Deans of the School of Law and have discussed the development of new courses with their faculty. The program does not directly overlap any existing programs, but it may be seen as an attractive additional program to bring students to CWRU, especially JD and LLM students who could then also acquire this distinctive MA in Military Ethics.

IV. Evidence of need for the proposed curricular initiative

a. Are there similar programs in the state addressing this need and potential duplication of programs in the region and state? None in the State of Ohio. Indeed, this degree program is unique in the nation.

***b. Employment opportunities for graduates*:** This MA would demonstrate unique, specialized expertise that could either stand on its own, be a stepping-stone to a Ph.D. program in a field such as Philosophy (including Bioethics), Political Science, History, Psychology, Sociology, or Strategic Studies, or likely be paired with a Law Degree (especially one with an International Law focus), or dual undergraduate majors in the Integrated Graduate Studies program.

The U.S. and Canadian military service academies themselves are a primary employment target, as the subject is taught at all the service academies (RMA-Kingston, as well as USMA, USNA, USAFA, USMMA, USCGA, etc.) as a required course (over 1,000 students a year per academy). The subject is also offered at military prep schools, schools such as Virginia Tech, VMI, and the Citadel, and by many ROTC and nROTC programs nationwide. It would also have crossover appeal to individuals in the related fields of Law Enforcement and Peace Studies/Conflict Resolution, as well as to graduates intending to pursue careers in military law (JAG Corps) or military medicine.

c. What are the national and international competitive programs and their resources? The only Military Ethics MA programs we could find in the US in are online programs, which lack the depth, prestige, and legitimacy of a traditional degree program. The service academies prefer to have their PMPs (Permanent Military Professors) receive traditional degrees at civilian institutions, rather than relying on online programs or courses at the War Colleges. There are some Military Ethics degrees available in other countries, but US government funded programs will generally not pay for tuition at non-US institutions. The proposed MA in Military Ethics at CWRU would also have a strong advantage against any competition, due to the nationally and internationally recognized scholars who would be involved.

V. Projected enrollment

a. Define expected national and international enrollment targets over a five---year period: This MA program, unique in the nation, would primarily be aimed at individuals interested in learning more about this complex academic subfield that has roots that reach back to the work of Greco-Roman and medieval scholars but is recently resurgent, thanks in part to media attention given to emerging military technologies, such as drones. It will also appeal to mid-rank military officers from all branches of the service pursuing a graduate degree in order to achieve senior rank. The Inamori Center has fielded interested inquiries (both from external parties and from recent and current CWRU students) about the potential for such a program for years, so that, in essence, an eager "waiting list" already exists.

Over 100 flyers describing the prospective program were distributed at the most recent annual meeting of the International Society for Military Ethics (ISME) at the U.S. Naval Academy in January 2016 and generated enormous positive response. The same early stage recruitment tactic will continue at the upcoming meeting of the European chapter of ISME, meeting at Oslo, Norway in May 2016. The program is clearly described as in development and not a current offering.

One of the governors of the "Permanent Military Professor" program for the Navy and Marine Corps has, in response, proposed that it might be possible for their selection process be coordinated to provide a stream of Navy and Marine Corps officers to this program in order to qualify to fill existing billets in the military service academies, and for ethics instruction in the Fleet. The corresponding U.S. Army personnel have expressed similar interest in utilizing this new resource to address the current shortage of professional expertise in ethics in their educational and training systems.

Our preliminary enrollment estimates are:

2017: five students
2018: ten students
2019: fifteen students
2020: twenty students
2021: twenty students (our hope is to stabilize enrollment at 20 students for pedagogical reasons)

b. Describe special efforts to enroll and retain underrepresented groups in the given discipline(s): We will work closely with the Office of Diversity, Inclusion, and Equal Opportunity to tailor our outreach and marketing in order to attract underrepresented individuals to this program. Since this field is still relatively small, it offers an excellent opportunity for persons from underrepresented groups to establish international reputations. We also believe it is important that the director of this program will be a woman, as women are currently underrepresented in Military Ethics, and she can serve as a role model for women entering the field.

VI. Resources required

a. Describe the availability and adequacy of the faculty, staff, facilities, and other resources for the proposed curricular initiative: The program could be launched with current funding. The Visiting Scholar in Military Ethics (see below) position will initially be funded by the Inamori Center, but might in subsequent years require additional funds (and will alternate between Distinguished and Emerging scholars). It would also help to have a part-time administrator or some of another administrator's time devoted to this program (e.g. 20% time from either an administrator from the Inamori Center or the Philosophy Department). Ideally, income from the program itself could support these positions, if the timing works and tuition sharing agreements can be arranged.

b. Describe the need for additional faculty, staff, facilities, or other resources and the plans to meet this need: One of the foremost Military Ethics scholars in the world, Prof. George R. Lucas, has come to CWRU's Inamori Center for the current academic year (with funding from the Inamori Center) as the first Visiting Distinguished Scholar in Military Ethics, expressly to help us launch this MA. This position could be continued with him or other available distinguished scholars (e.g., Martin L. Cook of the Navy War College) in subsequent years, as needed.

The Inamori Center is already in strong international partnerships with centers around the world that have expertise in Military Ethics, including King's College London, the Compass Group network, ISME (the International Society for Military Ethics - which is currently considering moving its headquarters to CWRU as soon as 2016), Euro-ISME, and CETMONS. These partnerships allow us to bring in a steady flow of guest speakers and create video lectures to supplement the MA program prodigiously.

VII. Expense and revenue

a. Project expenses to launch initiative and description of ongoing expenses and expected revenue, preferably in table format:

Startup Expenses	**Cost**	**Funding Source**
TOTAL STARTUP EXPENSES	$35,000	Inamori Center/CAS

Ongoing Program Expenses	**Expected annual cost**	**Funding source**
TOTAL annual expense	$77,000	Inamori Center/CAS

Revenues

Program year	Estimated tuition per student (approx.)	Number of Students	Total expected revenue*
2017	$52,000	5	$260,000
2018	$52,000**	10	$520,000
2019	$52,000	15	$780,000
2020	$52,000	20	$1,040,000
2021	$52,000	20	$1,040,000

*Agreements will need to be negotiated to share the revenue among the College of Arts and Sciences, the Inamori Center, and the other schools involved. Please note that the required courses and the majority of the offered electives are from the College, so tuition sharing with other schools will not significantly diminish revenue to the College. For any given student completing the program, at least 18 hours will need to take of CAS courses. Since the majority of electives available are also CAS courses, it is even possible for a student to take all 30 hours in the College. However, we expect that most students in this program will take no more than 9 hours outside the College, and most will take significantly less than that.

**We assume tuition rates will rise; these numbers take 24 hours at the current rate of $1,714/credit hour and 6 hours in the summer at the current rate of $1,660/credit hour, plus rounding up for approximate fees. Source: http://www.case.edu/studentaccounts/tuition-fees/graduate-tuition-fees/school-of-graduate-studies/

b. Provide evidence of institutional commitment and capacity to meet these expenses: (Please see above tables for sources of funding.)

VIII. Other expense and revenue questions

a. Is the curricular initiative designed to be revenue generating? If so, define the expected revenue beyond the cost of expenses, preferably in table format: It would be appropriate to charge around $56,000/year for tuition and fees for this program, and this program could easily attract 15-20-person cohorts annually of high-quality participants. As a point of comparison, USNA's Stockdale Center for Ethical Leadership draws in four Stockdale Fellows each year (and turns away many more applicants) to study topics in Military Ethics, even though the program does not confer a degree or certificate.

b. Describe the need and justification for tuition waivers or stipends: None expected or required, unless stemming from participation of limited number of IG-undergraduates whose tuition scholarships may not cover the full cost of their participation in this program

c. Describe terms of expense or revenue sharing with other CWRU schools and/or administrative offices: We propose using a tuition-sharing model that recognizes the program development and administrative expenses beyond the cost of instruction, and if ever necessary, future tuition waivers associated with the program. The College has previously partnered with the Law School in this capacity and propose a similar model.

Gross Tuition of all credits enrolled for MA Military Ethics students
less CAS and Inamori Center Administrative Expenses at @20% = Net Revenue

2017 projection
Gross Revenue: $260,000 for 150 credits
less $52,000 for CAS and Inamori Center Administrative Expenses
Net Revenue: $208,000 or ~$1387/credit for Law School courses for full paying students*

*This rate would be adjusted based on if tuition waivers are ever offered.

d. Identify likely sources and assess the near--- and long---term likelihood of raising funds to support the initiative in such categories as external and internal grants and philanthropy: The Inamori Center has been working with UGEN Corporate Relations development officers to build strong relationships with local corporations, some of whom, such as the Eaton Corporation, are already supporters of the Center, have strong ties to the military, and may be able to provide additional support for this program. In addition, Drs. French and Jack are working on a DoD grant proposal that, if successful, could also provide some funding.

IX. Library resources

a. Karen Thornton, the research services librarian for the Philosophy department said that based on her initial review of the library resources, the existing resources are sufficient to support this degree program. Furthermore, she said that it would be fairly easy to acquire additional resources if any were needed. However, the available resources are likely capable of supporting this program without acquiring supplementary materials.

A preliminary search of existing online resources shows that students currently have full online access to over 300,000 resources tagged under "military ethics." More resources are available through databases such as JSTOR and SocIndex. Furthermore, CWRU is associated with of the foremost journal in this field, *The Journal of Military Ethics,* through the Inamori Center Director (who is an Associate Editor of the journal). Masters students would also benefit from the CETMONS (Consortium for Emerging Technology and Military Operations and National Security) and ISME conferences, some of which will be held at CWRU and the annual fall law symposium hosted by Dean Scharf and the CWRU Law School that regularly brings leaders in this field to campus.

X. Relationship of proposal to strategic plans

a. How does the proposed curricular initiative relate to the priorities of the CAS strategic plan? This program, unique in the U.S., marshals the resources and expertise of CAS faculty to generate new interest in and revenue for the College through academic service to a wider and currently-underserved community of potential students.

b. How does the proposed curricular initiative relate to the priorities of the CWRU strategic

plan? This new program would emphasize institutional commitment to "ethics & society," a core pillar of the CWRU strategic plan, generate publicity and goodwill for the institution, its schools, and its ethics center, and exhibit the commitment of the institution toward academic innovation and public service. The study of military ethics supports long term humanitarian goals, such as preventing unjust wars, decreasing incidents of war crimes, genocide, human rights abuses, and other atrocities produced by the dehumanizing effects of armed conflict, supporting the mental health and successful transitions of military service members and combat veterans, and fostering a lasting peace founded in justice.

2016-2017 Faculty Senate Standing Committee Chairs

aculty Senate Committee on By-Laws	Ledford	Kenneth	chair, 2016-2017	CAS
aculty Senate Committee on Faculty Compensation	Mahoney	Gerald	chair, 2015-2017	MSASS
aculty Senate Committee on Faculty Personnel	Bendick-Keymer	Jeremy	chair, 2016-2017	CAS
aculty Senate Finance Committee	Starkman	Glenn	chair, 2016-2017	CAS
aculty Senate Committee on Graduate Studies	MacDonald	Paul	chair, 2015-2017	SOM
aculty Senate Committee on Information and Communication echnology	Hauck	Steven	chair, 2016-2017	CAS
aculty Senate Committee on Minority Affairs	Hickman	Ronald	chair, 2016-2017	SON
aculty Senate Nominating Committee	McEnery	Maureen	chair, 2016-2017	SOM
aculty Senate Committee on Research	Hoffer	Lee	chair, 2013-2017	CAS
aculty Senate Committee on Undergraduate Education	Dubin	Robin	chair, 2016-2017	WSOM
aculty Senate Committee on Undergraduate Education	Chottiner	Gary	vice chair, 2016-2017	CAS
aculty Senate Committee on University Libraries	Iverson	Paul	chair, 2016-2017	CAS
aculty Senate Committee on Women Faculty	Palomo	Leena	chair, Spring 2016-2017	SODM