FACULTY CURRICULUM COMMITTEE
SIGNATURE PAGE

- In section A, list ALL of the forms covered by this signature page. If you submit a form that is not listed in A, your proposal will be held back until we receive a new, updated signature page.
- You must obtain the signature of your department chair and dean before submitting your proposal.

A. FORMS COVERED BY THIS SIGNATURE PAGE. List each form you are submitting—for instance, PSYC 383, Course Form; PSYC, Change of Major Form; PSYC, Change of Minor Form.

1. Data Science – Change Program Form

B. APPROVAL AND SIGNATURES.

1. Signature of Department Chair or Program Director:

   ___________________________ Date: ___________________

2. Signature of Academic Dean:

   ___________________________ Date: 12/5/15

3. Signature of Provost:

   ___________________________ Date: 2/16/16

4. Signature of Business Affairs (only for course fees):

   ___________________________ Date: ___________________

   [ ] fee approved on __________
   [ ] BOT approval pending

5. Signature of Curriculum Committee Chair:

   ___________________________ Date: ___________________

6. Signature of Budget Committee Chair (only for new programs):

   ___________________________ Date: ___________________

7. Signature of Academic Planning Committee Chair (only for new programs):

   ___________________________ Date: ___________________

8. Signature of Faculty Senate Secretary:

   ___________________________ Date: ___________________

Date Approved by Faculty Senate: ___________________
January 25, 2016

Re: Proposal to delete cognates and replace them with 4 emphases and 6 credit hours of electives in CSCI and/or MATH

To Whom It May Concern:

At present there are 14 cognates in the Data Science Degree (B.S.) that contain courses offered by the School of Business, the School of Science and Mathematics, and the School of Humanities and Social Sciences. These cognates have a number of drawbacks and problems that this proposal is designed to address. First, they range in required credit hours from 15 to 30. This range is too broad. Second, many of the cognates are inflexible and do not include any room for electives or customization. Finally, there is currently no option in the Data Science degree (a joint program between Mathematics and Computer Science) for students to take any Computer Science or Mathematics electives.

We propose a single simplified model for cognates (now referred to as emphases). There will no longer be 14 prescribed cognates. Specifically, we propose that an emphasis will be 9 credit hours in either the Sciences, Social Sciences, Arts and Humanities, or Business Analytics. Each emphasis follows the formula that these 9 credit hours are at the 300 level or above. The Business Analytics is unique in that 3 of the 9 credit hours are used for INFM 350: Business Analytics.

A second and related change is we are adding 6 credit hours of electives that may be filled by the MATH and CSCI courses specified in this proposal. This brings the emphases + MATH/CSCI electives total to 15 credit hours.

This proposal standardizes the experience for the students and increases the available options to specialize in a domain of interest. We believe it is critical for a data scientist to gain an understanding of a specific domain at the 300 level or above, which was the original purpose of the cognates and remains the purpose of these emphases. We are...
excited to expand the possible domains available to students to include new options, such as an emphasis in Arts and Humanities.

Regards,

[Signature]

Paul Anderson, Ph. D.
Assistant Professor
Director of the Data Science Program
Department of Computer Science
FACULTY CURRICULUM COMMITTEE
CHANGE/DELETE PROGRAM FORM

Instructions:
- Please fill out all of the portions of the form that are specified in section B. You must do this before your request can move forward!
- Remember that your changes will not be implemented until the next catalog year at the earliest.
- If you have questions, please start by checking the detailed instructions on the website.
- Please feel free to contact the committee chair with any remaining questions you might have.

A. CONTACT INFORMATION.

Name: Paul Anderson
Phone: 843-953-8151
Email: andersonpc2@cofc.edu

School: SSM
Department or Program: Data Science Program

Name and Acronym of Major: DATA

B. CATEGORY OF REVIEW. Please check all that apply, then fill out the specified parts of the form.

☐ Change Request (fill out all sections)
  ☐ Add an existing course to requirements or electives
  ☐ Add a new course to requirements or electives (attach completed course form for each)
  ☐ Delete courses from requirements or electives
  ☒ Add or modify concentration*
  ☐ Add or modify cognate*

*Note: Only concentrations and cognates requiring 18 or more credit hours will be tracked in Banner and Degree Works and noted on the transcript.

☐ Terminate Program (fill out E, G, H, and I)
  ☐ Terminate degree
  ☐ Terminate major
  ☒ Terminate concentration
  ☐ Terminate cognate

C. GENERAL INFORMATION

Number of Current Credit Hours (for existing program): _69+
Number of Proposed Credit Hours (for changed program): _65+__________
Catalog Year in which changes will take effect: FALL _2016__________

D. CURRICULUM. Please list every change you are making below AND attach the current Program of Study Worksheet for this major (http://registrar.cofc.edu/program-of-study-resources/program-of-study-worksheets/index.php) with changes marked in RED. Additions should show where the course will be inserted, deletions should be noted by crossing out the course, and moves indicated with arrows. Distinguish between required and elective courses, and note any prerequisites, co-requisites, sequencing, or other restrictions. Provide the catalog description and course list exactly as they should appear in the catalog. For each new course, submit the Curriculum Committee's Course Form and a sample syllabus.

This form was last updated on 6/6/2013 and replaces all others.  

Page 1 of 4
1. Replacing individual prescribed cognates from the data science degree with 4 flexible emphases and 6 credit hours of electives in CSCI and/or MATH.

2. Each emphasis is 9 credit hours and they are spelled out as follows:

**Sciences Emphasis Requirements (9 credit hours)**

A student must select an additional 9 credit hours at or above the 300-level from Astronomy (ASTR), Biology (Biol), Biochemistry (CHEM), Chemistry (CHEM), Geology (GEOL), or Physics (PHYS).

**Business Analytics Emphasis Requirements (9 credit hours)**

Required Courses:

INFM 350 – Business Analytics (3) PR: DSCI 232 and DATA 101

A student must select an additional 6 credit hours at or above the 300-level from Decision Science (DSCI), Economics (ECON), Entrepreneurship (ENTR), Finance (FINC), Information Management (INFM), International Business (INTB), Marketing (MKTG), and Supply Chain Management (SCIM).

**Social Sciences Emphasis Requirements (9 credit hours)**

A student must select an additional 9 credit hours at or above the 300-level from Anthropology (ANTH), Psychology (PSYC), Sociology (SOCY), Public Health (PBHL), Political Science (POLI), and Communication (COMM).

**Arts and Humanities Emphasis Requirements (9 credit hours)**

A student must select an additional 9 credit hours at or above the 300-level from Art History (ARTH), Classics (CLAS), History (HIST), Linguistics (LING), Music (MUSC), Studio Art (ARTS), and Dance (DANC).

E. RATIONALE AND EXPLANATION. Please provide a narrative addressing the request you are making and why you are making it.

At present there are 14 cognates in the Data Science Degree (B.S.) that contain courses offered by the School of Business, the School of Science and Mathematics, and the School of Humanities and Social Sciences. These cognates have a number of drawbacks and problems that this proposal is designed to address. First, they range in required credit hours from 15 to 30. This range is too broad. Second, many of the cognates are inflexible and do not include any room for electives or customization. Finally, there is currently no option in the Data Science degree (a joint program between Mathematics and Computer Science) for students to take any Computer Science or Mathematics electives.

This proposal standardizes the experience for the students and increases the available options to specialize in a domain of interest. We believe it is critical for a data scientist to gain an understanding of a specific domain, and we are excited to expand the possible domains to include new options, such as an emphasis in Arts and Humanities. The purpose of these emphases remains the same as the original goal of the cognates, which is to require the students to obtain an understanding of at least one application domain at the 300 level or above.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT.

This form was last updated on 6/6/2013 and replaces all others.
<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment Method and Performance Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>What will students know and be able to do when they complete the major or program?</td>
<td>How will each outcome be measured? Who will be assessed, when, and how often? How well should students be able to do on the assessment?</td>
</tr>
<tr>
<td>1. Students gain competency in computer science, including programming, data organization, data mining, data structures, and algorithms.</td>
<td>Competency will be measured via a comprehensive examination administered when the student is registered in the capstone course (DATA 495). The questions included will be pulled from representative courses. For this core competency that includes CSCI 221, CSCI 334, and DATA 210.</td>
</tr>
<tr>
<td>2. Students gain competency in core area of mathematics and statistics, including pre-calculus, calculus, and statistical inference.</td>
<td>Competency will be measured via a comprehensive examination administered when the student is registered in the capstone course (DATA 495). The questions included will be pulled from representative courses. For this core competency that includes MATH 250, MATH 440, and MATH 441.</td>
</tr>
<tr>
<td>3. Synthesize the knowledge students acquired in math, stats, and computer science applied through a senior level capstone experience.</td>
<td>Competency will be measured via a formal write-up and presentation of their capstone project.</td>
</tr>
</tbody>
</table>

Additional Outcomes or Comments:

G. IMPACT ON EXISTING PROGRAMS AND COURSES. Please describe the impact of this request on other programs and courses. If you are deleting a program, please describe the effect on all programs that will be impacted; if you are adding or changing a program, please explain any overlap with existing programs at the College.

There is some impact on other departments as data science students could potentially enroll in classes that were previously not in any of the cognates. The data science students would be required to complete all necessary prerequisites for these courses. Further, while the number of data science majors is growing it is a small program.
with less than 50 majors, and thus, the impact to any one department is anticipated to be minor. Finally, we have contacted each of the departments included in the proposal and have acquired their approval of this proposal. Documentation attached.

H. COSTS ASSOCIATED WITH THE REQUESTED ACTION. List all of the new costs or cost savings (including new faculty/staff requests, library, or equipment) associated with your request.

No new costs or cost savings.

I. CHECKLIST

☒ I have completed all relevant parts of the form.

☒ I have attached a cover letter that describes my request and lists all the documents I am submitting.

☒ I have attached a Course Form for each newly-created or modified course.

☒ (For proposals that affect other departments in any way) I have attached an acknowledgement from the relevant department.

☒ I have provided the complete curriculum for the program, concentration, emphasis, etc., including the description and course list, exactly as it should appear in the catalog.

☒ I have submitted one Signature Form that lists all of the different forms I am submitting.
Data Science Major Year: 2016-17
Degree: Bachelor of Science
Credit Hours: 65+

"PR" indicates a pre-requisite. "CO" indicates a co-requisite.

Courses within this major may also satisfy general education requirements. Please consult http://registrar.cofc.edu/general-edu for more information.

Required Courses

☐ DATA 101 Introduction to Data Science (3) PR: None
☐ DATA 210 Dataset Organization and Management (3) PR: None
☐ DATA 495 Data Science Capstone (3) PR: DATA 210, CSCI 470, and MATH 441

Math Requirement

☐ MATH 120 Introductory Calculus (4) PR: Placement or C- or better in MATH 111
☐ MATH 203 Linear Algebra (3) PR: MATH 120 or instructor permission
☐ MATH 207 Discrete Structures I (3) PR: MATH 105, MATH 111, or MATH 120
☐ MATH 250 Statistical Methods I (3) PR: MATH 111 or MATH 120 or instructor permission
☐ MATH 350 Statistical Methods II (3) PR: MATH 120, MATH 250
☐ MATH 440 Statistical Learning I (3) PR: MATH 203, MATH 220, and MATH 350
☐ MATH 441 Statistical Learning II (3) PR: MATH 440

Computer Science Requirement

☐ CSCI 220 Computer Programming I (3) PR: CSCI 120 or CSCI 180 or MATH 111 or higher or department permission; CO: CSCI 220L
☐ CSCI 220L Computer Programming Lab I (1) CO: CSCI 220
☐ CSCI 221 Computer Programming II (3) PR: CSCI 220 with a C- or better, CSCI 220L with a C- or better; CO or PR: MATH 207
☐ CSCI 230 Data Structures and Algorithms (3) PR: CSCI 221 with a C- or better, MATH 207
☐ CSCI 310 Advanced Algorithms (3) PR: CSCI 230 with a C- or better, MATH 207
☐ CSCI 334 Data Mining (3) PR: CSCI 221 with a C- or better, MATH 207, MATH 250
☐ CSCI 470 Principles of Artificial Intelligence (3) PR: CSCI 230 with a C- or better

Choose from 1 of 14 electives [Accounting, Biomechanics, Customer Relationship Management, e-commerce, Economics, Exercise Physiology, Finance, Geoinformatics, Molecular Biology, Organismal Biology, Physics and Astronomy, Sociology, Supply Chain Management]

Elective Requirements: 6 credit hours from the following

☐ ___________ ☐ ___________

CSCI 315 Service-Side Web Programming (3) PR: CSCI 215, CSCI 221
CSCI 325 Functional and Logic Programming (3) PR: CSCI 221 with a C- or better, MATH 207
CSCI 332 Database Concepts (3) PR: CSCI 221 with a C- or better, MATH 207
CSCI 380  User Interface Development (3) PR: CSCI 221 with a C- or better, MATH 307
CSCI 399  Tutorial (3, Repeatable up to 12) PR: Junior standing, tutor permission, department chair permission
CSCI 410  Automata and Formal Language (3) PR: MATH 207
CSCI 420  Principles of Compiler Design (3) PR: CSCI 320, MATH 307
CSCI 432  Concepts of Database Implementation (3) PR: CSCI 332, MATH 307
CSCI 440  Computer Networks (3) PR: CSCI 340, MATH 250, MATH 307
CSCI 450  Architecture of Advanced Computer Systems (3) PR: CSCI 340 or CSCI 350
CSCI 459  Service-Oriented Programming (3) PR: CSCI 221; CSCI 230 or CSCI 315
CSCI 480  Principles of Computer Graphics (3) PR: CSCI 230 with a C- or better, MATH 105 or MATH 120
CSCI 490  Special Topics (3) PR: Instructor permission
MATH 307  Discrete Structures II (3) PR: MATH 207 or MATH 295 or instructor permission
MATH 323  Differential Equations (3) PR: MATH 221 and MATH 203 or instructor permission
MATH 340  Axiomatic Geometry (3) PR: MATH 295 or instructor permission
MATH 399  Tutorial (3; repeatable up to 12 credit hours) PR: Junior standing; tutor and department chair permission
MATH 402  Advanced Linear Algebra (3) PR: MATH 203 and MATH 309 or MATH 311
MATH 403  Abstract Algebra II (3) PR: MATH 303
MATH 411  Advanced Calculus II (3) PR: MATH 203 and MATH 311
MATH 415  Complex Analysis (3) PR: MATH 311
MATH 417  Reading and Research (3) PR: Senior standing; instructor and department chair permission
MATH 418  Reading and Research (3) PR: Senior standing; instructor and department chair permission
MATH 423  Introduction to Partial Differential Equations (3) PR: MATH 221 and MATH 323
MATH 430  Mathematical Statistics I (3) PR: MATH 221
MATH 431  Mathematical Statistics II (3) PR: MATH 430
MATH 445  Numerical Analysis (3) PR: MATH 203 and MATH 245 and MATH 323
MATH 449  Linear Models (3) PR: MATH 203 and MATH 350
MATH 451  Linear Programming and Optimization (3) PR: MATH 203 and MATH 221 and CSCI 220 or MATH 245 or instructor permission
MATH 452  Operations Research (3) PR: MATH 203 and MATH 430 and CSCI 220 or MATH 245
MATH 455  Bayesian Statistical Methods (3) PR: MATH 430
MATH 460  Stochastic Processes (3) PR: MATH 430
MATH 461  Time Series (3) PR: MATH 430
MATH 470  Mathematical Modeling (3) PR: MATH 203 and MATH 323 and MATH 246 or CSCI 220 or instructor permission
MATH 475  Statistical Consulting (3) PR: MATH 350 and one of the following: MATH 440, MATH 441, MATH 451, MATH 452, or CSCI 334
MATH 480   Topics in Applied Mathematics (3) PR: Instructor permission
MATH 485   Topics in Pure Mathematics (3) PR: Instructor permission
MATH 490   Practicum in Mathematics (3) PR: Senior standing; instructor and department chair permission

Select an emphasis from the following: Science, Business Analytics, Social Science, and Arts and Humanities

**Sciences Emphasis Requirements (9 credit hours)**

A student must select an additional 9 credit hours at or above the 300-level from Astronomy (ASTR), Biology (BIOL), Biochemistry (CHEM), Chemistry (CHEM), Geology (GEOL), or Physics (PHYS).

**Business Analytics Emphasis Requirements (9 credit hours)**

Required Courses:

INFM 350 – Business Analytics (3) PR: DSCI 232 and DATA 101

A student must select an additional 6 credit hours at or above the 300-level from Decision Science (DSCI), Economics (ECON), Entrepreneurship (ENTR), Finance (FINC), Information Management (INFM), International Business (INTB), Marketing (MKTG), and Supply Chain Management (SCIM).

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A student must select an additional 9 credit hours at or above the 300-level from Anthropology (ANTH), Psychology (PSYC), Sociology (SOCY), Public Health (PBHL), Political Science (POLI), and Communication (COMM).

**Arts and Humanities Emphasis Requirements (9 credit hours)**

A student must select an additional 9 credit hours at or above the 300-level from Art History (ARTH), Classics (CLAS), History (HIST), Linguistics (LING), Music (MUSC), Studio Art (ARTS), and Dance (DANC).
Phase Out Plan for Current Students

There are no known issues that current students will be facing if this proposal is approved. It is a much more general and flexibility curriculum. If students elect to remain in the previous catalog years, that is also not an issue as none of those courses are being removed nor is it anticipated that their course offering patterns will change as a result of this proposal.
Science Emphasis

Responses

Astrophysics, Astronomy, Phyics
- Narayanan Kuthirummal, kuthirummaln@cofc.edu

Kuthirummal, Narayanan

Hi Paul,
Sorry for the delay in getting back to you. I have forwarded your proposal to our curriculum committee for their feedback. If I understand this proposal correctly, instead of students getting specific “tracks” in physics, chemistry, biology, etc., they will be getting a “science emphasis” even if they take all 15 credits of physics, right?
Thanks,
-NK.

-------------------

Narayanan Kuthirummal, PhD
Chair, Department of Physics and Astronomy
College of Charleston.

Office: JC LONG 215
9 Liberty Street, Charleston, SC 29401.

Phone: 843-953-7457
Fax: 843-953-4824
kuthirummaln@cofc.edu

Kuthirummal, Narayanan

Hi Paul,
I am happy to let you know that the Department of Physics and Astronomy is in favor of your Data Science Proposal.
Thanks,
-NK.

-------------------

Narayanan Kuthirummal, PhD
Chair, Department of Physics and Astronomy
College of Charleston.

Office: JC LONG 215
9 Liberty Street, Charleston, SC 29401.

Phone: 843-953-7457
Fax: 843-953-4824
kuthirummaln@cofc.edu
Riggs-Gelasco, Pamela Jo

to Paul, van

Paul,

That sounds fine. We won't even notice those students among all the biology majors (except they are better than the biology majors, don’t tell anyone I said that). The main issue on connecting with chemistry is that students cannot get to a 300-level course in 15 credit hours. A probable sequence is Chem 111 (4)/Chem 112 (4)/Chem 231 (4)/Chem 232 (4)/Chem 351 (3) OR Chem 111/Chem 112/Chem 232/Chem 311 (3). A final possibility, which is shorter in chemistry credit hours is Chem 111/Chem 341 (4)/Chem 342 (4) but 341 and 342 requires math 120 and also Math 229 (5 credits) OR Math 220 (8 credits). Your students might have the later, so that might work for them. But, the first author biochemistry course is Chem 351 which requires 111-112-231-232 as pre-reqs.

There are likely shorter pathways to a 300 level course in other sciences, so I am guessing few students for a chemistry route. On the plus side, the first two options only require one more class to get a chem.

It would probably be sufficient in chemistry, to just take the first 4 courses (111/112 and 231/232) for 15 hours. Not sure how important the 300-level is to you.

Pam

Riggs-Gelasco, Pamela Jo

to Paul

Paul,

Chemistry is happy to support your proposal.

Pam

Sent from my iPhone

Biology

Jaap Hillenius, hilleniusw@cofc.edu
Hillenius, Willem Jacob

to Paul

Paul,
Biology supports your proposal. It makes sense to reduce the number of cognates, and replace them with areas of emphasis, as your proposal outlines.

Thanks,
Jaap

-----
Jaap Hillenius
Professor & Chair
Department of Biology
College of Charleston
66 George Street
Charleston, SC 29424
USA

T: (843) 953-5504
F: (843) 953-5453
E: hilleniusw@cofc.edu

Geology
- Mitchell Colgan, colganrm@cofc.edu

Levine, Norman S

to Paul, Mitchell

I have spoken with Mitchell and this is a thumbs up... We are in favor of this here in Geology.

One note is that some of the classes that would be appropriate for these students are in the upper 200's would there be any flexibility

Norm

Business Analytics

Supply Chain Management
- Josh Davis
Davis, Joshua M

to Paul

Paul,

Sorry to be behind. The department has reviewed the planned changes to the Data Science curriculum and is supportive of those changes.

Please let this email serve as a note of support for the proposed changes.

Thank you for including us in your program.

Sincerely,

Joshua M. Davis, Ph.D.
Associate Dean
Chair, Department of Supply Chain
and Information Management
School of Business
College of Charleston

Business Administration
- Tom Kent, kentt@cofc.edu - now Rhonda Mack

Mack, Rhonda W
to Paul

Paul,

I intended to take this to my department for consideration at our last meeting and our dean scheduled a meeting that required cancellation of the departmental meeting. We meet again and will discuss. I do not, however, see a problem.

Rhonda

Rhonda Mack, Ph.D.
Professor of Marketing
Chair, Department of Management and Marketing
School of Business
College of Charleston
18431333-6565  mackr@cofc.edu
Mack, Rhonda W

3:06 PM (6 minutes ago)

to Paul

Paul

Please consider this email as acknowledgement of the support of our department for your Data Science Proposal given the changes made by adding the Entrepreneurship courses as options.

Please let me know if I can help out in any other way.

Rhonda

Rhonda Mack, Ph.D.
Professor of Marketing
Chair, Department of Management and Marketing
School of Business
College of Charleston
(843) 953-6565  mackr@cofc.edu

Economics

- Calvin Blackwell, blackwellc@cofc.edu

Blackwell, Calvin

to Paul

Hi Paul,

I put the proposal to my colleagues and received no objection. So, the department of Economics has no concerns about your proposal.

Calvin

Calvin Blackwell
Professor, Chair
Department of Economics
College of Charleston
Charleston, SC 29424
e: blackwellc@cofc.edu
t: 843.656.7836
http://dbcofc.edu/academics/academicdepartments/economics/faculty/blackwell-calvinupb
SSRN: http://tinyurl.com/michuel

Finance

- Weishen Wang, wangw@cofc.edu
Wang, Weishen

11:48 AM (0 minutes ago)

to Paul. van

Dear Paul,

Thanks for asking my input. I support your effort to restructure the data science curriculum. Our department welcomes the students in your program to take finance courses.

All the best,

Weishen

Weishen Wang, Ph.D., CFA
Chair and Associate Professor
Department of Finance
School of Business
College and University of Charleston, SC
66 George St.
Charleston, SC 29424
Tel: (843) 953-0887
Email: wangw@cofc.edu

International Business and Marketing, and Economics
- Rhonda Mack, mackr@cofc.edu

Mack, Rhonda W

Oct 30 (4 days ago)

to Paul

Paul,

I intended to take this to my department for consideration at our last meeting and our dean scheduled a meeting that required cancellation of the departmental meeting. We meet again and will discuss. I do not, however, see a problem.

Rhonda

Rhonda Mack, Ph.D.
Professor of Marketing
Chair, Department of Management and Marketing
School of Business
College of Charleston
(843) 953-6565 mackr@cofc.edu
Mack, Rhonda W

to Paul

Paul
I just left a message for you. My departmental faculty had one question. Is there a way in the options listed to add entrepreneurship for the 5 credits? That is the only real concern that our department had and we are otherwise supportive of your proposal.
Rhonda

Rhonda Mack, Ph.D.
Professor of Marketing
Chair, Department of Management and Marketing
School of Business
College of Charleston
(843) 953-6565 mackr@cofc.edu

From: <pauleanderson@gmail.com> on behalf of Paul Anderson
<andersonpe2@cofc.edu>
Date: Tuesday, November 17, 2015 12:59 PM
To: Microsoft Office User <mackr@cofc.edu>
Subject: Re: Data Science Proposal (Response Requested)

---

Paul Anderson <andersonpe2@cofc.edu> 2:34 PM (19 minutes ago) ★
to Rhonda

Hi Rhonda,

I think if I understand you correctly that would be great. You are saying we can include entrepreneurship as well in the list of courses?

---

Mack, Rhonda W

to Paul

Yes, that would solve their questions.
Rhonda

Rhonda Mack, Ph.D.
Professor of Marketing
Chair, Department of Management and Marketing
School of Business
College of Charleston
(843) 953-6565 mackr@cofc.edu

From: <pauleanderson@gmail.com> on behalf of Paul Anderson
<andersonpe2@cofc.edu>
Date: Tuesday, November 17, 2015 2:34 PM

---
Mack, Rhonda W  

to Paul

Paul

Please consider this email as acknowledgement of the support of our department for your Data Science Proposal given the changes made by adding the Entrepreneurship courses as options.

Please let me know if I can help out in any other way.

Rhonda

Rhonda Mack, Ph.D.  
Professor of Marketing  
Chair, Department of Management and Marketing  
School of Business  
College of Charleston  
(843) 953-6565  mackr@cofc.edu

Social Science

Public Health
- Sue Balinsky, balinskys@cofc.edu

Balinsky, Susan E  

to Paul

Hi Paul,

The BS in Public Health program is in favor of the proposal to include Public Health courses as an option in the Social Sciences Emphasis requirements. Please let me know if you need any additional information.

Thank you for including us in your proposal.

Sincerely,

Sue Balinsky  
Director, BS in Public Health

Communication
- Jenifer Kopfman, kopfmanj@cofc.edu
Hi Paul,
The Department of Communication is happy to support this proposal. If you need something more official from me, please let me know.
Best,
Jen

Dr. Jenifer Kopfman
Associate Professor and Chair
Department of Communication
College of Charleston

From: paul.anderson@gmail.com [mailto:paul.anderson@gmail.com] On Behalf Of
Paul Anderson
Sent: Monday, October 12, 2015 2:16 PM
To: Milner, Ryan M <milnerrm@cofc.edu>; Kopfman, Jenifer E
    <KopfmanJ@cofc.edu>; van Delden, Sebastian A <vandeldensa@cofc.edu>
Subject: Data Science Curriculum Changes

... Political Science
  - H. Gibbs Knotts, knottshg@cofc.edu

Knotts, Gibbs

7:12 AM (8 hours ago)

Paul,

Thanks for checking back with us. I have now gotten some feedback from our curriculum committee. We are excited about the change and appreciate your efforts.

Please let me know if you need any additional information.

Gibbs

Sociology
  - Tracy Burkett, burkettt@cofc.edu
Burkett, Tracy L

to Paul

Hi Paul,

We would love to be part of this, but I do have a quick clarification. At least in terms of General Education reqs of our Sociology and Anthropology courses are considered social sciences. Of course, we know that our course has a strong humanities component as well. Let me know if you think this might be an issue.

Best,

Tracy

Anthropology

Tracy Burkett | department chair | 843.953.5738 | burkett@cofc.edu

Burkett, Tracy L

to Paul

Hi Paul,

We would love to be part of this, but I do have a quick clarification. At least in terms of General Education reqs of our Sociology and Anthropology courses are considered social sciences. Of course, we know that our course has a strong humanities component as well. Let me know if you think this might be an issue.

Best,

Tracy

Psychology

- Gabrielle Principe, principeg@cofc.edu
Hi, Paul –

Many thanks for your email and the explanation about the restructure of the cognate requirements for our majors in support of the changes that relate to psychology, as our department can accommodate the expected students.

All the best,
Gabby

Gabrielle F. Principe, Ph.D.
Professor and Chair
Department of Psychology
College of Charleston
66 George Street
Charleston, SC 29401
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Arts and Humanities

Responses:

Morris, Valerie Bonita
Oct 12 (2 days ago)
I do not see a problem. Seems like a good idea to me.
Valerie

Classics

Timothy S. Johnson, johnsonts@cofc.edu
Dear Paul,

Classics is pleased to support the inclusion of Classics in the Humanities Emphasis Requirement for the major in Data Science. If anything else is needed, please let me know.

Tim Johnson
Professor/Chair
Classics

Linguistics

Elizabeth A. Martínez-Gibson, martineze@cofc.edu
Hi Paul,

I am in favor of your proposal and any connections we can make between the Sciences and the Arts & Humanities. Of course, Linguistics crosses almost every discipline, if not all.

I am sure you have looked at our webpage to see what courses we have http://catalogs.cofc.edu/undergraduate/linguistics-minor.htm We are an interdisciplinary program created mainly with courses that already exist in different departments. We have very few courses that are actually LING and belong specifically to the Minor. Since your program requires these courses to be at the 300-level or above, this would include: LING 490: Special Topics, LING 498: Independent Study. We also have LING 499: Bachelors Essay, for the Honors Program.

Since we do not have a line for Linguistics, we are at the mercy of the departments that participate in the minor course offerings. We have only one adjunct, who teaches one or two courses a semester and due to staffing issues, we have yet to be able to offer LING 490. A number of us have done LING 498 with individual students and a couple have done Bachelors Essays as well. Right now, we are struggling to keep our core course LING 125 going each semester and I am not sure when we might be able to offer LING 490 with the cutbacks, but that seems to be the course that would fit your program. So, if you are asking to add LING courses as possible course for your students to take, I am in favor. However, I can not at this point tell you how often this would be offered or what topics might be offered, since it would depend on staffing.

I hope this helps and if you have any questions or decide to include any of the LING courses, I will be happy to work with you.

Liz

Elizabeth A. Martinez-Gibson, PhD
Professor of Spanish & Linguistics
Director of Linguistic Studies
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martinez@cofc.edu
Music

Edward Hart, harte@cofc.edu

Hart, Edward B

to Paul •

7:31 pm (2 days ago) ★

Dear Paul,

The faculty was very supportive of this idea. Let me know what I can do to help.

Cheers,

Edward

Dr. Edward Hart
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Chair, Department of Music
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Studio Art

John Hull, hullj@cofc.edu

Hull, John M <HullJ@cofc.edu>
to Paul •

Oct 14

Good afternoon Paul:

The emphasis you're describing seems fairly similar to what they're doing in Computing in the Arts. My only suggestion would be that you consider including Art History in the emphasis, at least in part, because the Chair of Art History, Professor Mazzone, was instrumental in setting up the Computing in the Arts Degree.

The only other suggestion I would make would be to direct students interested in Studio Art to take introductory level art history classes. In some sense the emphasis track your describing is a Studio Art Minor without the Art History component.

That said I support this proposal.

Please let me know if you have any questions.

John

Dance

Janine McCabe, mccabej@cofc.edu
McCabe, Janine Marie

to Paul. van. Bill

Hi Paul, This is very exciting! I am definitely interested in this proposal. I am also going to share this with our Director Gretchen McLaure. Is there a reason why only dance would be included as an option and not theatre?

Thanks,
Janine

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History

Justice, Phyllis

to Paul

Hi, Paul:

This sounds very interesting, and the Data Science program would definitely be of interest to a few select students in the History Department. It’s likely that the number of interested students will grow over time, as our new Civil War historian, Adam Domby, does research focused on the sort of data analysis you’re describing.

In other words, I definitely support your proposal.

Best,
Phyllis

-- Dr. Phyllis G. Justice
Professor & Chair
Department of History
College of Charleston

Art History
Hello Paul,

yes, I am familiar with data science, in fact I had one of your majors work with me on a computational project in 2013 and another student from CSCI in 2014. I usually asked Chris Starr for student suggestions of those interested in turning their skills to applying to problems.

Art history has the amount of data that can be useful for this sort of analysis. You cite the Pollock fractal work, but there's much going on with huge data sets (all the world's paintings, divided by era, period, style, etc.), and/or the sophisticated work of identifying style and authorship (you might look at Daniel Rockmore's work that was published in Nature). I'm currently working with a colleague in computer science at Rutgers on style identification and change across periods of time in Western painting.

All of which to is to say please don't leave us out (you mention studio art, but not art history). I also offer a class on new media in contemporary art (that is, art work that can only be made through computational processes). We also have an archaeologist/art historian who uses data analysis for his results from Roman military camp excavations in Central Europe, and faculty in HPCP who work with GSI and other computational tools.

I am glad to see data science also identify this direction for its students, like CITA did for CSCI. We would love to see your majors.