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 of Minor Form

B. APPROVAL AND SIGNATURES.

1. Signature of Department Chair or Program Director:
   [Signature]
   Date: 3/7/16

2. Signature of Academic Dean:
   [Signature]
   Date: 3/9/16

3. Signature of Provost:
   [Signature]
   Date: 3/9/16

4. Signature of Business Affairs (only for course fees):
   [Signature]
   Date: ____________
   □ fee approved on ________
   □ BOT approval pending

5. Signature of Curriculum Committee Chair:
   [Signature]
   Date: 3-23-16

6. Signature of Budget Committee Chair (only for new programs):
   [Signature]
   Date: ____________

7. Signature of Academic Planning Committee Chair (only for new programs):
   [Signature]
   Date: ____________

8. Signature of Faculty Senate Secretary:
   [Signature]
   Date: ____________

Date Approved by Faculty Senate: ________________

03-09-16P12:00 RCVD
FACULTY CURRICULUM COMMITTEE
MINOR 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: Sebastian van Delden  Phone: 843-953-9615  Email: vandelensao@cofc.edu
School: SSM  Department or Program: Computer Science Department

Name and Acronym of Minor: Data Science (DATA)

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

☐ Add a New Minor (complete all portions)

☒ Change an Existing Minor (complete C, D, E, G, H, and I)
  ☒ Add existing course or courses to requirements or electives
  ☐ Add new course(s) to requirements or electives (attach completed course form for each)
  ☐ Delete courses from requirements of electives

☐ Terminate a Minor (complete E, G, H, and I)

C. GENERAL INFORMATION.

Number of Current Credit Hours (for existing minors): 20
Number of Proposed Credit Hours (for new or changing minors): 19+ 20

Catalog year in which changes will take effect: FALL 2016

☐ Interdisciplinary (please see guidelines on the Curriculum Committee website and include acknowledgments from relevant departments)

According to academic policy, students may not obtain a major/concentration and minor in the same subject. Will students in specific majors be prohibited from declaring this minor because of this policy?

☒ Yes—Which major(s) or concentration(s)? Data Science

☐ No

D. CURRICULUM. For a changed minor, please list every change you are making below AND attach the current catalog entry for this minor (from the Minor Requirements section) 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. For each new course, submit the Curriculum Committee’s Course Form and a sample syllabus. For

This form was last updated on 6/6/2013 and replaces all others.
a new program, please submit the complete curriculum and catalog description exactly as they should appear in the catalog.

“MATH 111” is currently required in the Data Science Minor. This requirement will be removed and instead “MATH 105 or MATH 120” will be required.

E. RATIONALE AND EXPLANATION. Please provide a narrative addressing the request you are making and why you are making it. In addition, for a new minor, please address its objectives, provide evidence of student interest (e.g. interviews with student focus groups, enrollment in special-topics courses in this area), and explain how the minor supports the liberal arts tradition as well as the mission of the institution.

Currently, three MATH courses are required in the DATA Science minor: MATH 111, MATH 250 and MATH 350. The pre-requisite to MATH 250 is MATH 105 (with a C- or better), MATH 111, or MATH 120. The new pre-requisite to MATH 350 is MATH 250, and MATH 120 or MATH 105 (with a C- or better). We are therefore making this change to better reflect the pre-requisites of the subsequent MATH course in the Data Science Minor.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT.

<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 minor? Attach a Curriculum Map.</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>
</tbody>
</table>

1. Outcomes do not change.

2.

3.

4.
G. IMPACT ON EXISTING PROGRAMS AND COURSES. Please describe the impact of this request on other programs and courses. If you are deleting a minor, please identify all programs that will be affected. If you are adding or changing a minor, please explain any overlap with existing programs at the College.

Minor impacts to enrollments in MATH 105, 111 and 120 might occur due to these changes. But, these effects will be negligible. The Math department endorses the proposal.

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

No costs.

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 minor, 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 Minor

Phone: 843.953.5730
Paul Anderson, Director

The data science minor provides students an introduction to the field by developing their quantitative abilities in statistics and in data mining and giving students a broad overview of the field with some practical applications of data mining, programming, and databases.

The primary goal of the data science minor is to increase the quantitative and analytical learning outcomes to students of all degree programs at the College who complete the minor. The curriculum of the minor exposes students to the nature of data science and builds a small skill set in data mining.

Requirements

Credit Hours: 19-20
Data Science (5 credit hours)

DATA 101 Introduction to Data Science (3)
DATA 210 Dataset Organization and Management (3)

Computer Science (4 credit hours)

CSCI 220 Computer Programming I (3)
CSCI 224 Programming I Laboratory (1)

Mathematics (4-10 credit hours)

MATH 111 Pre-Calculus Mathematics (4)
MATH 105 or MATH 120 Statistical Methods I (3)
MATH 362 Statistical Methods II (2)