Samantha Bailey has submitted a request for a major curricular change. His/her email address is: samantha.bailey@wsu.edu.

**Requested change:** Revise or Drop Graduate Plan

**Degree:** Ph.D. in Chemical Engineering

**Title:** Chemical Engineering - Dissertation

**Requested Effective Date:** Fall 2019

Revise plan requirement: Yes

**Dean:** Field, David - Assoc Dean - VCEA - Grad,

**Chair:** Petersen, Jim,

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**UCORE Committee Approval Date**

**All-University Writing Com / Date**

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**Catalog Subcommittee Approval Date**

**GSC or AAC Approval Date**

**Faculty Senate Approval Date**
I approve this proposal in its current form.

--Jim

From: curriculum.submit@wsu.edu [mailto:curriculum.submit@wsu.edu]
Sent: Thursday, January 25, 2018 2:40 PM
To: Petersen, James N <jn_petersen@wsu.edu>; Field, Dave <dfield@wsu.edu>
Subject: 411057 Chemical Engineering and Bioengineering Requirements Revise - Revise or Drop Graduate Plan

Petersen, Jim,

Field, David - Assoc Dean - VCEA - Grad,

Samantha Bailey has submitted a request for a major curricular change.

**Requested change:** Revise or Drop Graduate Plan

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Revise plan requirement: Yes

Both Chair and Dean approval is required to complete the submission process. Please indicate that you have reviewed the proposal by highlighting one of the statements below and reply all to this email. (curriculum.submit@wsu.edu)

[Details of major change requested can be found in the attached supplemental documentation]

1. I approve this proposal in its current form.

2. I approve this proposal with revisions. Revisions are attached.

3. I do not approve this proposal. Please return to submitter.

If you do not respond within one week, you will be sent a reminder email. If no response is received within three weeks of the submission date, the proposal will be returned to the submitter.
Thank you for your assistance as we embark on this new process. If you have any questions or concerns, please let us know wsu.curriculum@wsu.edu.

Suzanne Lambeth, Assistant Registrar
Graduations, Curriculum, & Scheduling
Washington State University
Registrar’s Office
PO Box 641035
Pullman WA 99164-1035
509-335-7905
slambeth@wsu.edu

Note: Please use the attachments to this email rather than the link below to view the supporting documentation.
I approve this proposal in its present form as well.

Dave Field

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Petersen, Jim,

Field, David - Assoc Dean - VCEA - Grad,

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2. I approve this proposal with revisions. Revisions are attached.

3. I do not approve this proposal. Please return to submitter.

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Thank you for your assistance as we embark on this new process. If you have any questions or concerns, please let us know wsu.curriculum@wsu.edu.

Suzanne Lambeth, Assistant Registrar
Graduations, Curriculum, & Scheduling
Washington State University
Registrar's Office
PO Box 641035
Pullman WA 99164-1035
509-335-7905
slambeth@wsu.edu

Note: Please use the attachments to this email rather than the link below to view the supporting documentation.
Rationale
Transport phenomena, chemical reaction engineering, and chemical thermodynamics form the core of the chemical engineer's thought processes. In recent years, the faculty of the chemical engineering program have found that many of our Ph.D. graduates have not completed upper division coursework in these topics and therefore are not grounded in core chemical engineering principles. This lack of grounding adversely impacts the student’s ability to conduct outstanding, cutting edge research since the student must learn these materials in a just-in-time fashion while conducting research. In a recent faculty meeting, the chemical engineering faculty voted to revise the graduate curriculum to enable students to focus on these core topics.

In addition to these core technical topics, the chemical engineering faculty believe all students benefit from a core course that teaches students how to conduct research and to communicate research results and proposals. In the past, these topics have been taught in a two course sequence, ChE 596/597, each of which was two credits. Under a separate proposal, this sequence is reduced to a single, 3-credit course.

All impacted courses are in chemical engineering, so no other academic programs should be impacted by this change.

Current and Proposed Requirements
PhD in Chemical Engineering

- **Core: must complete all of the following (4 courses total):**
  - CHE 510 (3 credits) (Transport Processes)
  - CHE 541
  - CHE 596 (3 credits) (Research Methods and Communications)
  - CHE 527 (3 credits) (Chemical Thermodynamics)
  - CHE 529 (3 credits) Chemical Engineering Kinetics
  - CHE 597

- **Chemical or Biological Reaction Kinetics: 3 credits minimum:**
  - CHE 529
  - CHE 560

- **Supporting Course: 3 credits minimum:**
  - Chosen in consultation with the advisor and committee

- **Research Seminar: 2 credits minimum:**
  - CHE 598

- **Research Credits: 20 credits minimum:**
  - CHE 800

- **Pass Written Qualifier Exam**
  - Consult the program handbook for more information regarding this requirement

- **Pass Oral Preliminary Exam**
  - Consult the program handbook for more information regarding this requirement

- **Pass Final Exam**
  - Consult the program handbook for more information regarding this requirement.

- **Total Graded Credits: 16-15 credits minimum**
- **Total Credits: 72 credits minimum**
Applicable Graduate School Requirements:

- **Graded Credits: 16-15 credits**
  - Students may use a maximum of 1 credit of undergraduate coursework (300-400)
- **Research Credits: 20 credits**
  - CHE 800