Using Strand Committees to Build Faculty Support for Departmental Change

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What are *Strand Committees*

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At KSU, Strand Committees are permanent committees populated by department faculty. These standing committees are included as part of the departmental governing structure via the bylaws.
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**Definition:**

A **Strand Committee** is a departmental-level curricular structure that organizes faculty around a thematic group of regularly offered courses (*a "strand"*).

*The primary goal of the Strand Committees is improving both student success and instruction while upholding a high degree of shared governance.*
Using Strand Committee . . .

Here, I wish to highlight three primary aims/recommendations that capture the Strand Committee philosophy:

- increasing faculty buy-in for change efforts;

- capitalizing on the enthusiasm of a few faculty members to serve as change agents;

- and structuring the committees so participation is open, voluntary, and there is continuity to the work.
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About Kennesaw State

Kennesaw State University...

- is a large (∼ 36,000 student) Comprehensive, R2 public university with two campuses in the suburban Atlanta, GA area.

- was re-founded in 2015 by the consolidation of a large liberal arts university and a smaller polytechnic university.

- has transformed from a teaching emphasis institution into an increasingly research emphasis.

- has four and six year graduation rates\(^1\) of about 18% and 44%, respectively.

\(^1\)among first-time, full-time undergraduates
Mathematics  KSU

- The department consists of 52 permanent faculty (and growing!) plus roughly 30 contingent faculty.

- The department offers two B.S. degrees and two minors (all in the process of being redesigned).

- All courses are taught by professional faculty (permanent or contingent). We do not employ GTAs or GIs.

- In Fall 2019, we offered 243 sections of math classes including \( \sim 50 \) College Algebra, \( \sim 35 \) Trigonometry or Precalculus, 27 Calculus 1, and 17 Calculus 2. (class sizes range from 36 to 60)

- We are just now adopting **course coordination** in the P2C2 sequence. Teaching faculty have a great deal of autonomy.
Kennesaw State University

KSU joined the **SEMINAL** cohort in January 2018. Our SEMINAL program has two primary goals:

- Transform all Precalculus and Calculus 1 sections into courses that engage students in active-learning experiences; and

- Increase the number, percentage, and diversity of students succeeding in Precalculus, Calculus 1, and Calculus 2 while bolstering success for students in subsequent courses.

**Course coordinators** for Precalculus and Calculus 1 were introduced as part of the SEMINAL program. At present, these roles are being expanded.
Those three foci again:

- increasing faculty buy-in for change efforts;

- capitalizing on the enthusiasm of a few faculty members to serve as change agents;

- and structuring the committees so participation is open, voluntary, and there is continuity to the work.
Increasing faculty buy-in for change

Challenge

Garner acceptance for policy changes among professional faculty in an environment where issues related to faculty governance, academic freedom, professional autonomy, and beliefs about teaching, learning, and course content can propel or hinder improvement efforts.

Strand Committee Role in Addressing:

- a permanent mechanism for faculty responsibility and authority over critical policy
- committee participation is open to any interested faculty member
- policy change is formulated in bottom-up fashion
- Strand Committees report to the department
Increasing faculty buy-in for change

Institutional Example: **Common Assessment**

- An analysis showed that departmental success rates in general education courses hovered $< 70\%$.

- Success rates for individual faculty members varied greatly ($> 90\%$ or $< 50\%$).

- Student readiness in subsequent courses (in particular calculus) was dropping post consolidation.

**Common Final Exam Pilot**

The Before Calculus Strand Committee put together a proposal to pilot our first common final exam. The proposal passed the departmental vote and was implemented for the first time in Fall 2019.
Capitalizing on the enthusiasm of a few faculty members to serve as change agents

**Challenge**

Overcome inertia and resistance to change, especially in a large department in which faculty face increasing pressure to focus on research and extramural funding.

**Strand Committee Role in Addressing:**

- creates a venue for enthusiastic faculty to work together
- provides a mechanism for *innovators and early adopters* to craft influential policy
- lends authority to the change efforts of enthusiastic faculty while adhering to general principles of shared governance.
Capitalizing on the enthusiasm of a few faculty members to serve as change agents

Institutional Example: Student Placement

- Student readiness coming into Calculus 1 dropped following consolidation.

- All courses leading into calculus were open enrollment (students were subject to a non-binding\(^2\), unproctored, online placement exam).

- Some constituent programs pressured students to place into Calculus 1 (by any means necessary).

New Placement Policy for All Incoming Students

Lead by a tenured professor with a great deal of calculus experience and a lecturer with a great deal of ”before calculus” experience, the Before Calculus strand committee studied placement strategies and devised a new placement policy. The new (University level!) policy was implemented starting in Fall 2018.

\(^2\)With respect to any course prior to calculus.
Open, voluntary participation and continuity of the work

Challenge

Allow any faculty member to participate in the creation of course related policy as it affects or interests him/her. Avoid losing momentum, and the fruits of effort, as faculty members move in and out of various roles.

Strand Committee Role in Addressing:

- as a permanent committee, a strand committee is always ready to take on an arising issue,
- provides continuity and memory of efforts while distributing responsibility,
- offers a service mechanism that allows faculty members to work on courses they have a particular interest in (regardless of things like rank)
Open, voluntary participation and continuity of the work

Institutional Example: Restructuring Paths to Calculus

- Faculty lamented major projects forgotten after a couple of years.
- Pockets of activity worked separately (FLC projects, G2C work), often with little communication.
- Faculty autonomy and shared governance are highly regarded!

New Course Paths to Calculus Expected (Fall 2020)

The Before Calculus committee has worked within the departmental governance structure to almost wholly redesign the individual courses and the pathways to the calculus sequence. New texts and tools are in use for all sections; we’re eliminating a course to change how students access calculus.

This major change is making its way through the approval pipeline.
Conclusion

- As standing committees, the Strand Committees are providing for faculty ownership of changing policy and practice.

- Strand Committees are giving enthusiastic faculty and early adopters an official path to influence departmental norms.

- The committees have served almost a course coordinator role for some classes\(^3\), and are lending legitimacy to the newly started course coordination for other courses\(^4\).

- The activity has caught the attention of administrators. New Clinical faculty are being added to the department.

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\(^3\) e.g. College Algebra  
\(^4\) Precalculus and Calculus 1
Thank You!

We asked BCSC committee members a few questions. Here, I share some select responses.

**Question**: How has your participation in the Before Calculus Strand Committee influenced the way you think about your teaching and/or student learning?

**Response**: I have been exposed to some of my colleagues that are members of this committee and recall how much they stressed on introducing some forms of student learning activities in the classroom.
Thank You!

We asked BCSC committee members a few questions. Here, I share some select responses.

**Question:** How has your participation in the Before Calculus Strand Committee influenced your instructional practices?

**Response:** I realized I was doing way too much on my end and not requiring enough from my students during class.
Thank You!

We asked BCSC committee members a few questions. Here, I share some select responses.

**Question:** How has your thinking about teaching and/or about student learning influenced your contributions to the Before Calculus Strand Committee?

**Response:** . . . I would always have in mind time as a huge factor. How can I take away from lecturing or revising some concepts and replace it with an activity that is fun, user friendly, and hands on for my students.