

Duke University

Arts & Sciences Council Minutes: 2011-12

Meeting #2 (10/13/11)

Council Chair Ruth Day called the meeting to order and gave an overview of the meeting. Approval of the minutes was unanimous.

Updates & Information

Dean's Update

Dean Patton was away at the US-India Summit on Higher Education but sent a message to the Council.

Main points included:

- I have almost completed individual meetings with all department chairs
- Moving now to program and institute directors
- Ruth Day and I will begin the "weekly lunches" series this Friday, where 12 faculty will join us for an informal conversation on A&S research and views on interdisciplinarity in A&S.
- My office has begun to schedule times to meet with each department this year
- I continue to listen carefully to faculty concerns.
- Together with the A&S Council, I hope to hold a series of open forums where faculty can brainstorm together about matters of common concern, such as technology in the classroom, and the integration of curricular and co-curricular initiatives.
- I look forward to hearing from you about these or any other matters, and it continues to be a delight to be working with you in these early stages.

Dean's Lunches with Faculty

- Who: --ALL **650** A&S faculty (eventually)
- Each lunch = 12 faculty (4 each from Natural Sciences, Social Sciences, Humanities)
 - Random selection (with diversity)

- How: --get email from Dean's Office
- meet in Faculty Commons

Reception After Last Council Meeting

- Many people, discussion for nearly 2 hours
- High level of interest and collegiality

Interdisciplinary Models

- Preview of forthcoming Interdisciplinary Poll
- Identify:--extent of interdisciplinarity among faculty
 - types of interdisciplinary models
 - benefits & challenges

Global Education: Exportability to Duke?

- We usually focus on exporting programs from Duke
- Now an example of the reverse
- Duke-NUS Graduate Medical Program in Singapore
 - developed TeamLEAD
 - innovative teaching method
 - very successful (by standard assessment tools)
- TeamLEAD workshop (Duke campus)
 - Saturday, 11/5
 - for all faculty (A&S, medical, schools, institutes)
 - [agenda provided]

Course Website (Blackboard → Sakai)

- Brief update from Ed Gomes (Associate Dean, Trinity College, Information Science & Technology)
- Sakai was recommended by faculty leadership groups & approved by the Provost
- We are in transition now – here are reminders
- Blackboard goes away at end of June 2012
- Must pull your material out by then, or it will be gone
- Go to the Sakai production site, sakai.duke.edu.
 - see links that will send you to our Sakai
- Also see external site with transition information:
 - sites.duke.edu/sakai
- Spring-2012 courses will be available in Sakai
- Or, you can wait until Fall-2012
- Also, a letter will go to department chairs & DUS's
 - about the transition process
 - and help available for the transition process
- Expect lots of documentation and communication

Q&A

Stephen Bass (Physics): Does this mean that everybody will have the opportunity to use this?

Ed Gomes: If you would like to use it, yes. Anybody who wants to use it, can.

Emily Klein (Nicholas School): I'm still unclear on whether [we as individuals need to migrate] our courses and organizations – whether we migrate them or you automatically migrate them.

Ed Gomes: We are migrating 4 years worth of data, automatically. Now some things will not move with the migration tool that's in place, because nothing's perfect. So a part of this is reaching out and finding out what would migrate and what wouldn't and making sure that you know the resources available so that you are able to get out [of Blackboard] what you think you need going

forward. The organizational site is part of what we will be formalizing and sending out to individuals and we will be able to create work sites, similar to what they were on Blackboard. We'll have a process in place and communication will be coming in terms of what those services are and recommendations about what tools to use.

Emily Klein: And in terms of the timeline of the migration, we can check Sakai and see that the last 4 years are there?

Ed Gomes: I would check with the sites, just to confirm the dates. As far as I know from the project, we're pretty much done with the migration.

ECASC Election

--There are two openings on the Executive Committee of the Arts & Sciences Council (ECASC)



--Today we will complete the roster, by electing one more from Humanities and from Social Sciences

Who votes:

- 1 voter per Department or Program
- The Council representative (or alternate) votes
- Vote for slots in BOTH divisions (no matter which you are in)
- Vote for ONE in each division
- Here is the ballot

Humanities	Social Sciences
Vote for One	Vote for One
<input type="checkbox"/> Bill Seaman (Art, Art History, Visual Studies) Media artist and scholar, currently working on art/science collaborations (poetic installations, scientific research papers and an Electrochemical Computer)	<input type="checkbox"/> Charles Becker (Economics) Economic demography, economic development, economic analysis of transition economies, and urban economics.
<input type="checkbox"/> Mark Hansen (Literature) Critical Theory, Comparative Philosophy, American Mass & Popular Culture, Film Theory & History	<input type="checkbox"/> David Brady (Sociology) Poverty and Inequality; Work, Labor and Economic Sociology; Political Economy, Social Policy and Political Sociology; Globalization; Methods
<input type="checkbox"/> Write-in candidate, if any (Check and write name below. Total checkmarks for Social Sciences cannot exceed ONE) <input style="width: 100px;" type="text"/>	<input type="checkbox"/> Write-in candidate, if any (Check and write name below. Total checkmarks for Social Sciences cannot exceed ONE) <input style="width: 100px;" type="text"/>

--Results announced next time

Majors, Minors, Certificates: Proposal



Ingeborg Walther
Associate Dean, Trinity College
Office of Curriculum & Course Development

- Current undergraduate course numbering scheme:
 - below 100 are introductory, 100-199 are advanced
- New numbering scheme:
 - numbers below 100 plus 200's, 300's, 400's
- Faculty & administrators tried to consider every possible problem in switching to the new system
- But missed one
- Current scheme limits the number of courses below 100 that can count for majors, minors, certificates
- In the new scheme, might just consider 200's the new 100's; but it's not that simple
- But it would mean many departments would be moving their foundational gateway courses up to the 200 level and this would create new complications [examples given]
- Therefore want to leave it up to each program to develop their curriculum in most appropriate way, as long as it ensures depth and breadth
- Proposed new language for the *Bulletin*:

“Majors including interdepartmental majors, minors and certificates are designed to give students breadth and depth in a particular discipline or interdisciplinary area. The courses required for majors, minors and certificates are specified by the department or the academic program, and include a progression from lower to upper level courses. Departmental and program majors require a minimum of ten courses; interdepartmental majors require a minimum of fourteen courses and minors require a minimum of five courses. Interdisciplinary certificate programs require a minimum of six courses, including an introductory and a capstone course.”

- This language wouldn't place any restrictions but the Curriculum Committee always approves major, minor, and certificate requirements
- It will ensure there is the depth and enough upper level courses to make any major and minor a truly rigorous experience

Q&A

Randy Matory (Cultural Anthropology) : I take it this reform was not meant to affect the numbering of graduate courses as well. Is it conceivable at Duke that

courses would legitimately include graduates and undergraduates?

Ingeborg Walther (Trinity College): Yes, the new 200-level would be the 500 and 600-levels now. They are those courses that are defined now as graduate courses that are open to advanced undergraduates. By the way, if you want to know more about the new numbering scheme, go to <http://trinity.duke.edu/curriculum/courserenumbering>. Also, 700 through 999 are graduate-only courses. That's the new 300.

Lee Baker (Trinity College): We went through a number of iterations in trying to actually get the numbers. I like this because it's simple, but not too simple, and more importantly it empowers departments and gives them the flexibility of control over what their major looks and feels like. It opens up some degree of freedom and at least more creativity for departments to design their own majors.

Ruth Day (Council Chair): And by the way, the report does include pros and cons. So if you don't have a copy in front of you, it's on the screen here.

Ingeborg Walther: In my research among other universities, it's rare to find them placing these restrictions that Duke has placed. Our colleagues at UNC don't have any such restrictions at all.

Ruth Day: So usually, when we have a proposal of some substance concerning the curriculum, we discuss it in one meeting and we then vote at the next meeting. If this proposal is non-controversial, we could vote on it today if you wish. It's up to the Council representatives. Could I see an informal show of hands for those of you who would like to go ahead and vote today? And is anyone opposed to voting today? There is one hand.

Dalene Stangl (Statistics): I just would like to have some time to think about it.

Ingeborg Walther (Trinity College): The reason I wanted it to have this first on the agenda today is because it does pose a problem of timing. We need to have everything in place by November for the new course request system. And if the vote is no and [yet] the numbers are going to change, it won't be able to happen. We will have to delay things even further and I'm worried that course requests for the fall semester will get delayed.

Dalene Stangl: As a matter of protocol, I really would like for us to always have time to think about it.

Ruth Day: There is a compromise. We could give a couple of weeks for faculty to go back to their departments and then hold an electronic vote. We have one person with a reservation about voting today, so let me ask you - - -

Dalene Stangl: It's not really particular to this, just in general.

Ruth Day: So for this, what is your will: delay until next time, compromise and do an electronic vote, or vote today?

Dalene Stangl: Nobody has any more non-controversial discussion? I'm okay with going today.

Ruth Day: Any other concerns?

Dalene Stangl: I think as sort of a parliamentary point, you should actually have a vote to suspend the month to wait.

Ruth Day: That's why I just asked informally first. Inge, can you live with going forward at the November meeting?

Ingeborg Walther: We could, but I would rather not

Ruth Day: Would someone like to so move? And second? We are now voting on suspending the usual procedure of waiting a month and voting today. All in favor? All opposed? Any abstentions? So they were all in favor and one abstention. And I think we can go ahead with the vote.

[The proposal passed with all in favor, none opposed, no abstentions.]

[Duke Immerse & Duke Global Intense](#)



Steve Nowicki
Dean & Vice Provost for
Undergraduate Education

Brief update about two innovations or programs (Duke Immerse and Duke Intense Global). Both are pilot projects, experimental in nature. Goals for today are to inform the Council and get the word out so faculty can consider participating in these teaching innovations.

Duke Immerse

Susan Lozier talked about this to the Council last year, also to the Academic Council, the CIT instructional showcase and other places. She was the chair of a faculty committee called the ACCUE, the Academic Council Committee on Undergraduate Education, that

was charged to think about innovations in connecting students and faculty in different ways across research and teaching interests. Actually, our own Ruth Day was a member of that committee, and David Malone was a member of that committee. So there are a lot of A&S people who were a part of that committee including representatives from Nicholas, Pratt and Sanford Schools. This was explicitly in response to a call from the Provost to this committee to think about how to come up with new ways of connecting students and faculty through teaching and research.

The key idea behind Duke Immerse is to immerse a group of students in an integrated cross-disciplinary problem-based educational experience that maps onto a full semester's worth of course credit. Instead of taking 4 courses for the entire semester they rotate 4 courses across a semester. This is inspired by model of full immersion at Colorado College, if you're familiar with that system. ACCUE suggested that we could try a model where we have an immersion of students and faculty working on an integrated approach to some problem for a whole semester, and map it on to a portion if not the entirety of students' academic registrations for that semester. If you could do that, you eliminate artificial barriers that separate students' lives into separate little buckets. This program is like Focus on steroids for upper-class students where everybody is really focused on one problem.

It also allows a lot of flexibility in scheduling because everybody – faculty and students – have the same schedule. They can just pull up stakes and go for 3-4 weeks to someplace else to work on the same problem. Also, it squarely connects the teaching/learning experience with faculty interests. Now in that sense it's actually not dissimilar from the Franklin Humanities Institute's humanities labs.

Two examples of Duke Immerse have come forward.

1) **“Black Freedom Struggles in the 20th Century”** from Bob Korstad (Public Policy) and Bill Chafe (Arts & Sciences). It is a comparison of the civil rights movement in the US and the anti-apartheid struggle in South Africa.” It will be taught by Bill and Karen Shapiro this spring. They will go for several weeks in the middle of the semester to South Africa to work with South African faculty and South African activists as part of the experience.

2) **“Leaving Home: the Law, Ethics, Political Economy of Displacement”**

Developed by Suzanne Shanahan, it looks at refugees and resettlements and rights. Because of its immersive nature and connection with faculty research interests, they're able to pull up stakes in the middle of the semester. They will divide into two subgroups, one of which will go to Nepal to work with Bhutanese refugees in that third world environment and the other will go to Egypt to work with Iraqi refugees in that relatively more urban environment.

Sales Pitch

Here's the sales pitch: we're launching those two programs in the spring. My job has been to help find the resources necessary to enable the faculty to do this. So if there are other faculty here or colleagues that you have who are interested in the idea of creating a Duke Immerse program, please have them talk to me or Suzanne, or Bill or Bob or to Ruth or to David or certainly to Susan Lozier.

Duke Global Intense

This is the brain child of Edna Andrews in Slavics, also now the head of the FOCUS Program. This program has gotten a lot of coverage in the *Chronicle* and elsewhere. Now, the idea behind Duke Intense Global is to create an extended program that connects students' educational experiences not around a single focus but to really provide a deep immersion into language and culture. So in a sense, this is sort of an extended study abroad kind of program. But it also does invite or require that the students all enroll in the same courses to allow for a greater degree of flexibility. Two of these actually have been launched right now, one that is being led by Edna Andrews and is connected to St. Petersburg, Russia and the other one being led by Professor Leela Prasad of Religion that is connected to Hyderabad, India.

Edna has run study abroad programs in St. Petersburg and has run DukeEngage in St. Petersburg and her idea is to connect this into one long arc. In this case, the target audience are sophomores. Students who register for this are required to be in this program for a full 3 semesters: the fall and spring of their sophomore year and the summer semester between the sophomore and junior year. The students are right now here, studying four courses including intensive Russian at whatever level they happen to start at and in a couple of weeks,

they are all going to move to St. Petersburg and finish the semester there. And they come back in the second semester of the program. The requirement is much more relaxed, because the students need time to fill in other parts of their curriculum, and so the only requirement is that they take the next level of intensive Russian in the spring semester. But they are meeting – and again, maybe FOCUS provides a model for a lot of this – with Edna and the other core faculty about the program, even though they’re taking other courses to stay in touch. And then in the summer between their sophomore and junior year, they go back to St. Petersburg for an integrated summer school engagement project.

Now some might think that there is a relation between these two programs and there is. I’m keeping them as separate names at the moment but there is a broad space here of innovation in the classroom connecting classes and innovation that allows greater connection with the rest of the world and an innovation that allows a student’s coursework to be really more fully integrated with working on real world problems.

And so again, with Duke Intense Global, if any of you are interested in your own idea about going to some part of the world and having a kind of extended arc of that sort, talk to me. Or talk to Edna. But if either of these kinds of innovations are exciting and you see something in between, talk to me about that as well. Because that’s really what we want to do. There’s a Chinese proverb that I probably use too often but it goes something like: “Education is like rowing upstream. If you’re not making progress, you’re falling behind.” And I think that’s something we at Duke want to promote, continually trying to push that envelope of innovations so that we are providing models for new ways of thinking about connecting the classroom to the real world.

As we’ve done this, we’ve encountered a few bumps in the road, in terms of making sure that we talk to our people. I’ve talked to Dean Walther quite a bit and our good friends at GEO [Global Education Office], especially Margaret Riley, about how to make sure that as these innovations come forward, that the faculty have a chance to look at it and actually we get it into the appropriate governance structure as necessary. And I think we had a few bumps but we’ve ironed those out, unless there are new ones. Dean Baker is nodding his head so all is well.

Q&A

Stephen Bass (Physics): I’d like to pick your brain about how you envision this going forward. You’ve described a fairly niche-level project which does not scale up to impacting a large number of our student population and so my question is how is this going to fit in the grander scheme of things?

Steve Nowicki: That is a really good question. What I’d like to do is to see these experiments – which are niche projects – as ways to ask “where is scalability?” I can’t send students for free to India all the time. I can do it a little bit and say, “is it working for them?” And is it worth figuring out how to link courses better and allow faculty more flexibility as to how they move in and out of country. So part of doing these experiments is to learn about that scalability. I don’t have a simple answer for you but I appreciate that that is part of the question.

Randy Matory (Cultural Anthropology): I think you answered my question and that is how it’s paid for, in other words, it’s free [initially for a] limited number of students. In future, it might be tuition based.

Steve Nowicki: Limited time only. And part of what we need to do, independent of the scaling issue, [is to] make sure that we come up with economically sustainable models and one of the key intersections of course, is how this impacts students on financial aid. That is pretty simple, because our financial aid policies are such that if something is required [as a] curricular element, we pay for it. The challenge is really for those “donut hole” families who are neither so wealthy that they don’t have to worry about it nor on financial aid but for whom college is a stretch. Actually, Lee Baker and I have collaborated on yet another innovation that’s maybe even more of a one-off with Eric and Carol Meyers, that actually sends students to Israel for 3 weeks before the start of the Spring Semester to do field work and continue that once they’ve seen it over here. We were very concerned about the cost of that trip so we’ve used some funding we have, some endowments that the Meyers have available to cut the cost of that program to more than 0 but only 400 dollars. I will say one more thing. Tuesday, I was in Boston with President Brodhead at a fundraiser. I described these programs and other innovations and those very well-off deep supporters of Duke, they loved it because they said this is what education has to be. It’s no longer the 34 courses, the math courses, the economics courses. Students have to be out there in the real world working on real problems. So I actually am optimistic that at least for

the start-ups and maybe even for some programs that we can have philanthropy provide endowments. What I like about that is that this is really, for both of the programs that I have described, opportunities to deeply connect faculty teaching interests with their research interests. This is what we do at Duke. We do this through promoting research through our undergraduates. And if we do that, we are doing something that is very important to do at a research university, something that is actually good for the faculty as well as for the students because it is more fun and it brings them to the research sites and it connects them to their teaching very directly.

Randy Matory: Well it's also going to affect the administration of departments and their own curricula, so if a certain number of professors are gone, in alternate semesters, how do you get your service?

Steve Nowicki: This is like the FOCUS programs. We have to be always concerned about interdisciplinary certificates. That ultimately does involve money, because you really can't tell a chair, we want to take Prof. Matory away and sorry you can't have him for the course he's been teaching.

Randy Matory: So I was going to ask, is this on paper any place that we can distribute to our colleagues so they can develop a plan?

Steve Nowicki: Yes, I can send you some descriptions and news articles and I'd be happy to have more faculty ideas to come forward.

Ruth Day: Thank you, Steve. Just a brief comment about those bumps in the road. ECASC and the Council have been interested in these programs and how they come about. Faculty are excited about all these innovative programs but on the other hand, wouldn't want them to be out there just on their own, without being in the fold of the academic curriculum and approval procedures. And so, we've had a series of meetings, ECASC and I, with Provost Lange, Steve Nowicki, Lee Baker, with Dean Patton, etc. I think we all agree now that when these programs come forward, if they involve new courses, they will go to the A&S Council Courses Committee. If they come forward and they are a program – not a major, not a minor – they will go to the Curriculum Committee. We haven't quite worked out all the details of Global Education Committee role. A lot of the bumps on the road have indeed been worked out so I agree with Steve on that. But we still have a “construction crew” out there.

The Curriculum

New Faculty

Last time in the Council, Randy Matory said “I don't know anything about the rationale behind the division of the curriculum into 5 different categories. I wish there was some kind of orientation for faculty.” President Brodhead was here and said, “Well I never had any orientation in any curriculum in any university. And now I will ask Ruth Day to assume all personal responsibility.” So thank you, Randy (?!). But point well taken. As an update, we have in the works a New Faculty Welcome from the Council. It introduces them to faculty governance at Duke and provides links to information about the curriculum, faculty research, and other topics of interest.

Quantitative Studies (QS)

Curriculum Structure

To lead into our next agenda item (the QS requirement), here is the structure of the general education requirements from Curriculum 2000, generally known as “The Matrix”

		Areas of Knowledge				
		ALP Arts, Literatures, Performance	CZ Civilizations	NS Natural Sciences	QS Quantitative Studies	SS Social Sciences
Modes of Inquiry	CCI Cross-Cultural Inquire					
	EI Ethical Inquiry					
	STS Science, Technology, & Society					
	FL Foreign Languages					
	W Writing					
	R Research					

Some faculty favor re-evaluating the entire curriculum. However given the magnitude of such a review (likely to take five or more years), we have taken a more modest approach. We have examined one component of the curriculum (QS), to determine what is working well and whether any modifications are needed. The QS committee (a subcommittee of the Curriculum Committee) will present its report today.

Procedural Notes

Given strong interest in this report and the effects that its proposal would have on departments and programs, we will not vote on it at the next meeting. Instead, we have initial discussion today, request any amendments

by November 2 (due to the Council chair), introduce and discuss amendments at the November 10 meeting, and vote at the December 8 meeting (*if the Council is ready to vote then*).

QS Report



Jack Bookman
Chair, QS Committee
(subcommittee of the Curriculum Committee)

Committee Report

--Circulated with the Council agenda and at the meeting
--Includes appendices with the committee charge, list of committee members, and alternatives to the current proposal

So, you all have the report in front of you, as charged by the chair of the committee. First of all, I'd like to thank everyone on that committee. We met often and long, and with a lot of hard discussions and email discussions in between. I appreciate all their hard work. So in this report, to give you some background and an outline of the report and some context, we have a of brief discussion of the rationale for modifying the current curriculum, which included a discussion of what we need in terms of quantitative literacy. We have a description of the learning outcomes that are at the heart of the changes that are proposed. We have a statement of proposed changes and a brief discussion of how we might implement those changes and we put three in parentheses. One includes the committee membership and others the charge. And actually one of the more interesting parts of the proposal are the alternatives that were considered and rejected, which I think are pretty informative and helpful to think about.

So, in meeting with Ruth, she said it would be a good idea if I talked just a few minutes about the process we went through and I think that's a good idea. So first I'd like to say that I think we've produced a proposal that balances the desire to have students gain proficiency in the quantitative method and an exposure to the mathematical sciences and disciplinary perspectives. And in addition, it's a requirement that is achievable by all Duke students. This was front and center of all our discussion. High standards that are achievable. There's a balance as in anything that deserves compromise.

So to be brief, we started by examining what we wanted to do. We next examined where we are now and then we spent a lot of time going back and forth articulating a requirement that moves us closer to what we want. That was the basic process. So our charge was to focus on the QS requirement, not to undertake a comprehensive review of the entire curriculum.

I think we've proposed modest but significant changes which, when enacted, would provide an opportunity to see how we might move to modify or change the larger curriculum. I'd also like to point out that we had ex-officio members that were extremely valuable. We have Ben Cook who works at the Academic Resource Center, who has been seriously influential when we made mistakes. And we had Matt Serra from Trinity College Assessment who has been extremely valuable. We would not have been able to do this work without the help of these ex officio members.

So the nature of the issues that were discussed and considered as part of the process was first, what would happen if we [compared] the foreign language curriculum with the QS [requirement]. I would say that the foreign language model is a proficiency-based model with courses that are consecutive and growing in rigor and depth. We've been fortunate to have 2 foreign language people on our committee. There's something attractive about that [comparison] because the FL requirement already exists in the curriculum. But we [eventually] decided to reject that [comparison] for a variety of reasons. One was that students have been doing math since before kindergarten. So already, by the time they come to college, they're at an advanced level to some degree. There would have been enormous issues with faculty and resources if we did have this proficiency model [for QS]. So [although] there's something attractive about that [comparison] we decided against it. We spent a lot of time talking about the issues of proficiency vs. exposure which also of course is related to whether this should be a "mode of inquiry" or an "area of knowledge." At one point, we went back and forth so many times, I began to feel dizzy. We spent a lot of time on what's an acceptable level of proficiency and it was not unanimous nor a clear consensus. But we did agree to go for the middle level and this proposal does hit this right. We spent a lot of time examining enrollment data that was provided by the Trinity College Office of Assessment and we spent a certain amount of time examining the general requirements at peer institutions. That was more for

information; we weren't really following but were actually trying to lead on this.

So we move next to talking about the two key elements of the proposal that differ from the current model. One is that there is focus on learning outcomes – I think these five outcomes are the heart of the report. They starts at the bottom of the first page where it says what students do to explain how data analysis is used and demonstrate skill and competence with data analysis, interpret evidence, identify and evaluate the assumptions used and to effectively present their results. That's the most important change. We're taking the course requirements and changing it to what the learning outcomes are that we're aiming for. That's more consistent with where a lot of institutions are going, and with where people who are thinking about quantitative reasoning [across] the country are thinking, including some of the accredited institutions.

The second major change is that one course will be taken in the mathematical sciences [math, computer science or statistics].

Unlike any of the other areas of knowledge, based on the data provided by the Office of Assessment, there are more students who are not taking [even] one of the three mathematical disciplines [to fulfill QS]. That's not true in SS, NS or ALP. When you look at how students meet those requirements, you really don't meet those ALP requirements unless you take a course in one of the departments associated with arts and literature. And you won't meet the SS requirement without taking a course in one of those departments. That's not quite true of QS because there are so many good courses [in other departments] that have QS coding. So we thought that part of the meaning of an area of knowledge is to be exposed to some [departmental] disciplines and so our compromise proposal was that the QS requirement be two courses, one of which is in one of those 3 mathematical sciences departments: MTH, STA, CompSci.

Q&A

Dalene Stangl (Statistics): Could we know what that number is that were not taking those courses? That is, [meeting the QS requirement with courses other than in those three disciplinary departments]. That's so that our departments can know how many more students we need to account for?

Jack Bookman (Mathematics): We could probably get that data sent out.

Ron Grunwald (Trinity College & Biology): Just a clarification, for the intent to have students take at least one course associated with one of the QS departments. How do you operationalize "associated with"? Does that mean a course that's owned by those departments or can that include courses that are cross-listed but aren't necessarily owned by that department? The obvious example would be a statistics course [taught] in one of the SS departments, or a mathematical biology course taught elsewhere.

Jack Bookman: If it's cross-listed, I wouldn't consider that to be [a problem].

Ingebord Walther (Trinity College): One of the ideas is that one of the two courses would have to originate in one of those departments.

Ron Grunwald: So that would require students to know where that cross-listed course originated, which they don't usually know.

Dalene Stangl: Statistics doesn't have any cross-listed undergrad courses other than with Math. The solution would be to not cross list.

Emily Klein (Nicholas School): I sense that you have a lot of data that you looked at that we're not presented with. I would be interested in seeing it. So for example, I think it's great that you put together learning outcomes. But you imply in the report that after developing those learning outcomes that the students were not meeting [them]. What are the students taking now to satisfy the QS requirement that shows us that they are not reaching some [specified] level of quantitative understanding?

Jack Bookman: Well let me start with a more general answer and maybe that can help. In any curriculum, students are optimizers. They want to optimize their GPA and they want to minimize the work that they face. That's what they do. Over time, a curriculum – like tax laws – will find loopholes. And I think that – the curriculum is 10 years old – students have found ways to not meet [the QS requirement fully].

Emily Klein: So just as an example, an English major. How is an English major satisfying QS now?

Jack Bookman I guess we don't include all that data in the report, but we might be able to answer this [while

meeting] confidentiality issues in importing that data.

Emily Klein: It's not confidentiality. Out of the so many English majors, how are they doing?

Jack Bookman: I guess we could ask to ...

Emily Klein: So you didn't look at it.

Jack Bookman: Oh we looked at them, we just didn't include the data.

Ingeborg Walther: We may have the data here.

Emily Klein: I'm just curious. What was the pattern?

Ingeborg Walther: I'm not sure that I have the right data sheet but we had multiple queries and I'm not quite sure how to read this. But we had different combinations. We took a typical graduating class and divided them by major.

Emily Klein: Who is the DUS for an ALP major that can tell us how their students are doing it?

Ruth Day: So as a suggestion – could someone come back with relevant data or send the data to us at ECASC? We can look at it and report to the Council. Are there other data people would like? So we have this question of how are people in the different divisions satisfying the requirements.

Steffen Bass (Physics): Moving forward, I guess what you're going to attempt to do is, take away the QS certification of all the courses that have it right now and reissue them after some kind of process where you try to figure out whether these courses actually achieve your [learning outcome] points 1-5. So how will you ensure quality control that this will actually happen and it's not something which DUSes, together with a department chair, will just pull out of thin air to get these labels into the course listing?

Jack Bookman: We proposed a transition plan, so we don't refer too much to the courses committee. We suggested that during the transition period – say, 2 years – a subcommittee will look at all QS courses and add faculty, which is something new, to include a syllabus with their proposal and we'll ask them to document how they see their courses meeting those requirements. We could make this harder than it has to be and we could make it easier than it should [be]. I'd rather err on the side of the list being easier than harder. We don't want to make this a stumbling block or a big bureaucratic

nightmare. But we do want to communicate that we're trying to do something and I have to rely on the good faith of the faculty to report honestly on what they're doing, which I don't think is a problem.

Steffen Bass: Moving forward, did you think of having some kind of assessment [about] where students are meeting that goal?

Jack Bookman: Well that is something that we talked about a lot and it's one of the reasons why the Assessment Office is so excited about having the learning outcomes because they thought it would really help in assessing the curriculum and in working in relation to accreditation. So that is definitely on the plan and the Office of Assessment is ready to work on that.

Lee Willard (Trinity College): I have another data request because in my experience as an academic advisor, there are a lot of courses that have double coding and students can switch at any time. It can be ALP or FL or CZ, so I'd be interested in seeing that. It seems to be increasing as I look at students' long range plans so I would just be interested in knowing what that number is because that might impact the rationale of what you're doing.

Jack Bookman: You mean those double coded with QS

Lee Willard: No what I'm saying is that the general underlying principle is that an area of knowledge has a course that originates in one of the fields associated with that. My experience has been that there are [so] many fields that cross the areas of knowledge that students can go back and forth to meet their requirements.

Dalene Stangl: And they're doing that because [?]

[Missing comments, owing to interruptions and multiple speakers at the same time]

Dalene Stangl: So there is an incentive to have lots of codes so that you can juggle.

Lee Willard: It means that area of knowledge [does not necessarily] have a course in that designation.

Leslie Digby (Evolutionary Anthropology): This actually goes back to follow nicely what Lee was talking about because I want to challenge a little bit this idea that NS and SS are all taught within their core disciplines. A quick search here *[gestures to laptop]*,

I'm finding NS in Women's Studies. I've got an SS in CompSci. So I'm worried that this path is essentially saying, well we should do that for all of the codes. That there are [other] specific departments that could potentially [ask to] be satisfied and I'm nervous about that. I don't like that necessarily.

Jack Bookman: You don't like what?

Leslie Digby: The idea that you have to go to a specific department to satisfy a [code], especially in an environment where we are encouraging interdisciplinarity. And QS in particular is key there because in so many disciplines, you have to be a quantitative scientist. You can't be a biologist and not be a quantitative scientist as well. So that's part of it.

Jack Bookman: First, only one has to be in that mathematics department. Jerry, if you want to talk more about that.

Jerry Reiter (Statistics): I think that there is some value in interdisciplinarity, in taking a course in QS that's taught by someone or [some] department whose primary research and teaching missions [are] about the methodology. And so I think this is actually a benefit to students, because when someone in CS or Math or Stats is teaching about their methods, we're teaching it because of the methodology, not for the application per se. So we ask the question: what is the theory behind this? Where does it go? How does it connect to other theories? What is the concept? I think that sort of way of thinking is something that students would benefit from. That's why only one out of 2 QS requirements [is required to be in CS, Math, or Stats].

Jack Bookman: So for example, we did discuss this idea of interdisciplinarity. And in say, statistics, if you take Statistics 101, you see here's the method and here's how it's applied here, here, here. Whereas if you take it in the discipline, it's going to be quite the opposite. It won't be interdisciplinary. Here's how you use it in our discipline, we're not going to talk about other disciplines, because that's not what this course is about.

Leslie Digby: But we don't hold [to] that criterion [for] any other area of knowledge.

Jack Bookman: And no other area of knowledge has as many people who are achieving the curriculum requirement without taking a course [in specific departments].

Leslie Digby: It would be interesting then, to see those numbers not just for QS but for the other areas of knowledge as well to see if that's really the case. Then it comes back to [whether this] was this really just an issue of giving the courses committee more specific guidelines? Would you solve the problem by simply giving them more specific guidelines on what a QS should be?

Jack Bookman: Well yes and no. We have guidelines.

Leslie Digby: Which the courses committee had not gotten until this point, is that correct?

Jack Bookman: Yes, but [that's because] there have been changes.

Leslie Digby: I respectfully disagree that it has to come from certain departments.

David Malone (Education): Well quickly, first of all, 2 years is a long time. I want to [thank] the committee. Being on the Exec Committee of the A&S Council (ECASC), I know, behind the scenes, [that] a lot of work and thought went into this. Like Emily Klein, I do think there's a problem and frankly, [I'm] in favor of this proposal but I don't think the problem is just with QS. I think it's with the entire curriculum in that all, as Leslie's implying, all these issues could surface in each of these areas. A couple of your assumptions, I want to question. One is [that] students graduate having met the QS requirement but not having taken courses in [the departments of] Math or CSci. I hear often that students meet the ALP requirement, [when] they have not had courses in performing arts.

Jack Bookman: But they take the course in one of the departments associated with that area of knowledge.

David Malone: Associated with that area of knowledge but I think when we get the data, we'll also find that students [meet] the ALP requirement without taking courses in the core departments that we think of and they certainly don't have to take courses in performing arts even though that's part of the code. And then I think we need to talk more about this assumption that Duke students are motivated to minimize effort and maximize their GPA. I think that, in some ways, is an underlying issue that the faculty needs to talk more about. Because frankly, I disagree with that assumption.

Jack Bookman: There are some students who do that. Significant enough to show up in data.

Ruth Day: Speaking of students, we do have a student here from Duke Student Government (DSG), Vice President for Academic Affairs. Could you comment briefly, Kaveh?

Kaveh Danesh (DSG): I would say that I often do hear of students approaching [the curriculum] as a checklist. So it's like, "I'm going to find the courses that I can check off, most easily." I'm not saying that all students do this or even a majority of students do this but it does happen and you do hear about certain courses that this checklist culture pertains to the most. And to respond to the earlier point about the course coming from the 3 disciplines, I would say that the purpose of the QS requirement is to endow students with a toolbox that can be applied to any problem in any discipline. If the course that is supposed to [add to] that toolbox comes from a political science course, or the person teaching it is only thinking about how statistics applies to political science, then that tool won't be able to be applied to all the different disciplines. But if it does come from Math, Stats, or computer science, the thinking is that these courses will present the methodology behind the tool and also show how that tool can be applied to a myriad of different problems.

Steve Nowicki: With reluctance, I reveal that I chaired the committee that brought us the QS and in fact this ambiguity is something that we worried about at that time because that was a fairly comprehensive overhaul of the overall curriculum. In order to pass the overall package, we chose to leave that ambiguity but I must say that we knew that that was going to be an issue. I have to say that I appreciate the work of the committee, acknowledging that there are some issues that may need to be worked out to address that squarely and I appreciate the fact that now is the time to finish the work that I should have done.

Dalene Stangl: I'm sorry Emily [Klein] had to leave. I want to address two of the primary problems with QS. [It is true that] a huge proportion of the students meet this requirement with Statistics. As a small dept, we [in STA] have been strapped and [are] using one and two year short-term contract faculty that were constantly on the steep part of their learning, constantly learning how to deal with a class of 100, but now we've got four POPs committed to doing this. And so for us, it's going to be a lot easier and a lot better.

The second problem that is inherent in doing this [and] that, this proposal is not solving is -- and we need to think hard about it -- is, when you're teaching these

intro statistics classes, it's including students at the lower end who can't do fractions, to students who have had advanced calculus, and we have no tracking. so that we can teach a class to the level of rigor of math that these students have. So we have kids at the lower end, struggling to keep up and students at the upper end who are bored to tears and then a section that doesn't want to take it at all. So it is really a struggle. If you read my proposal, I had an interdisciplinary program that did more to track the students so we could give them a class at the level of rigor, so that we don't just have to do this [at the] lowest common denominator. That proposal was rejected because it was too Stat-centric and I'm regretting that I didn't go to Math and CS and say, "Look, can't both of your departments come up with something parallel so that we can have students taking one of the three and we're really giving them an interdisciplinary class at the level that they need to have it at."

Ruth Day: Thank you all for your comments. There are a lot of issues involved here. Here are some of the things that the committee discussed, we discussed in ECASC, and we discussed today. In the proposal:

--Is the rigor appropriate?

--What does QS mean in the disciplines Math, Statistics and Computer Science versus other disciplines and other departments?

--What are the effects on courses and enrollments in majors?

Requirements do devolve overtime. They get going, they work a certain way for a while, and then things do change. **Is there a "best plan" for QS for all time?** Perhaps we should aim for "the most best" that we can have at this point in time.

So put all this in your thinking. If you're interested in offering amendments, we would like to have them in advance. You can email them to me at ruthday@duke.edu by November 2nd, so we can sort things out. The plan is that when we come back next time, we'll introduce those amendments but open discussion as well. We will vote, at the earliest, at the December meeting.

Dalene Strangle: I know that there were people from CS who couldn't be here. I have a list of 7 questions that we don't have time to do. I really need to hear from the committee, the answers to those before I can propose any amendments.

Ruth Day: We have already requested some data from the committee that have to go through Matt Serra and other people. Let's have them circulate requested data to ECASC. If anybody else wants more information, please email me and we'll see what can be done. You can also send preliminary amendments, pending the results of additional data reports. Let's do what we can do at each point in time.

[Close of Meeting](#)

Professor Day thanked everyone and the meeting was adjourned.

Respectfully submitted,

Donald J. Fluke
Executive Secretary