Presentation

- Undergrad enrollment over 140 this fall for first time
- 45% of math teachers in the state – math major and an education specialization
- Stats minor
- Informatics minor – working on
- 10% growth in grad students – 5 years ago weak masters in math
- Now Strong – Math and Stats Masters and a good Ph.D. program (most 60 credit)
- Grad enrollment over 50 this fall and about half are Ph.D.
- Quality of grad students has increased
- Many of best UG staying for masters
- Research
  - People doing publishable, peer reviewable
  - Theoretical research with undergrads
  - Very unique and noteworthy
- A lot of scholarship in math education and expect it to grow
- Undergrad Computational Science Research going on
- Collaboration with regional financial institutions
- Also with other departments
- They are part of the Research Infrastructure (just like buildings, labs, etc)
- Deliver value
- Also they partner and they are the driving principle investigator
- Major Initiatives:
  - Making sure programs and graduates are regionally relevant
  - Start from where they need to be when they graduate and work back from there to make sure they are delivering what the students need
- Our students getting jobs and into grad school that 5 years ago would never have happened
- Output has grown dramatically to everyone’s credit
- Did receive resources and invested them well with good result
- Department has been good about supporting Honors for many years. Four of current math instructors took Honors courses. Need to keep this up

Dean Brown – Thanks to Kurt and Math faculty – I had a visit from a CEO of a financial institution who came to say thanks for the strength of Financial Analytics. This is a standout program. Expression of gratitude
What Would it Take to do a Recognized Competency in Computational Sciences?

- Canon Design was on campus – Any building that had Plant Science etc would have an area with a Computational Sciences
- Scheduled hours and known availability
- Need hardware (current) too
- Also need to have space with the math department
  - Identified area
  - Scholars/faculty
  - Money
- Are working on hiring a data mining person
- VP Kephart – Interdiscipline Research – BioSciences area – need to include informatics and statistics
- Also need space and funding for grad students to be statistical consultants, supervised by faculty
- 6 years ago – 0 GRA’s, this year have around 12, most are funded by other departments
- Ag Experiment Station paying 25% of salary of statisticians for consulting
- Has spun off larger research projects

Challenge With Consultant Services – Dean Brown

- Had good statisticians but little of their time was written into grants
- Didn't get their names on publications
- Need higher visibility
- The return of F & A is still an issue
- Kurt needs some flexibility to run the program
- Need to build opportunity for scholarly work

Can start to refuse to let faculty work on things for free

Jackie Nelson - Routing form can split the F & A

Library – are good for undergrads – journals and book requests

Remedial Program (095)

- Students are in it that shouldn’t be here (juniors and seniors)
- Should have a conditional admittance to keep students from being seniors and still needing this course to graduate
- Have to emulate a community college system
- Keep students in a particular set of courses until they pass
- People keep retaking it (example: 9 times). Could the rule be more strongly enforced?
• Dean Brown – are there a lot of petitions for the 3-take? Response: Yes
• Some remedial students don’t work hard
• Need something dramatic to get their attention: perhaps if they fail the first semester they can only take remedial courses from then on until they pass - “Tough Love”
• Provost Nichols – What if we put them in a summer boot camp & they must pass before they can come back for fall?
• Don’t just pass to community college because they need to be prepared for the required classes
• There need to be consequences early if not passing 095
• Will start working more with Residence Halls
• VP Rames – Look at more intrusive advising for specific people
• Parent Portal? Will be operational by Fall
• Peer pressure and parental pressure is more effective

VP Kephart – High performance in computing has stepped up. What human capital do we have?
• Asst Prof in BioInformatics
• Res Asst Prof in BioInformatics will be gone
• Post Doc in BioInformatics just came in January
• Actuarial is different but no bright line between the two
• All have big data in common
• NIH, NF Starmetrics initiative. Jobs created, huge data sets for accountability reporting. Science of Science – impact of research and scholarship - comes from Indiana University
• Hope to hire people this spring that could help with this in various areas

Hearing that K-12 Teachers Need Content
• We need more content based programs for teachers
• We should be the ones doing this in South Dakota
• Masters in Math Education – not just 7-12 but also K-6
• They aren’t getting quality professional development – opportunity for a Science and Math Institute
• Elementary and Middle School getting missed
• Department of Education is disappointed
• South Dakota Department of Education is putting together training
  o 2 2-day Sessions
  o 1st day to look at standards
  o 2nd day didn’t meet expectations
  o Hired trainers: SDSU faculty applied and weren’t accepted