Presentation
- Have been a service department
- Will be looking at more research hires
  - Expect to be economic – development related and applied
- Have trouble getting GTAs to cover lab needs
- Enrollment
  - Usually have more than 400 students
  - Will be in 300’s
  - Lost a year of recruitment with program changes
- Graduates have competitive offers
- Good placement
- Supply limits for incoming students and a strong demand for graduates
  - Should result in higher starting salaries
  - This has already started

Is there an opportunity with Bel Brands?
- Yes – for sure
- A real opportunity

How will Engineering/Math Building impact this Department?
- Trying to sell current equipment so when buy new have places for hood
- Trying to move to places around campus for the 2 years until construction is done
- Also looking at revamping how they do courses

Have you embedded the management core into the programs? How is it going?
- Fine, so far
- It will be important to assess this and ask stakeholders

Enrollment
- 314 Undergraduate
  - 160 Construction Management
  - 150 General Engineering, EET, MET and IM
- 20 Graduate
Faculty
- Fully staffed - 12 Faculty FTE
  - 5 Management
  - 5 Construction Management
  - 2 General EE

Discuss industry partnerships
- Requests for services
- Placement of grads
- 1-29 manufacturers conference

Aspirations for grad program?
- Master of Science Operations Management
- Opportunity to be a great degree for place-bound professionals
- Only have 4 grad faculty
  - Very careful how many they admit
  - Max of 25
- May be amenable to a cohort model or blended/online
- Are there other faculty who could participate?
  - Need to revisit who would be good partners
- At one point, there was a HR hole in the program
  - Did plug this for undergraduate program
  - For graduate program
    - Used to be they could get degree without management course
    - Corrected this
    - There is no HR course for graduates
    - Parts are embedded in other courses

Since the Department is in a dynamic model, what should be the pace of the move toward more research?
- Will be critical for tenure track faculty to have a research/scholarship component

Need to raise up a Masters of Science in management
- Professional and multi-department
- For people with expertise in an area but want management skills
- Also connect to industry and research
- Would like to add another FTE to expand the emphasis on external
Engineering shops
- Fabricate for Chem, Ag, etc. on campus

Lots of applied emphasis on campus and off
- Daktronics
- Rosebud Construction
- Stop signs
- Shop cleaning
- Habitat build

Possible connection with Tech Transfer Office?
- Perhaps we could assist partners in tech transfer
- Doesn’t have to only be a SDSU employee

Rapid Prototyping?
- We are doing it here
- In past, polymers only
- Now also does metal
- Also have laser scanner and then laser cutting

Will lose space during construction
- Then will have shared space with other departments
- Cultures are different
- Have to find ways to work together
- Floors
  - Architecture
  - Math
  - Shops
- Will need good soundproofing because ETM and Architecture are both noisy

How are the new fees working out?
- Investing in
  - New lab equipment
  - GAs
- Students haven’t said much

Library
- Like online
- Accreditation has been fine
Starting to buy more management books with their allotment
Engineering Technology & Management Department

Presentation to the SDSU Strategic Planning Task Force

Who are we?

Academic Programs:
- Construction Management
- Operations Management (Fall 2012)
- General Engineering
- MS Operations Management (Fall 2012)

Outreach:
Engineering Shops
SDSU EDA University Center
History

• Established in 1956
  o AS & AA degrees in drafting, surveying, manufacturing engineering
  General Engineering Dept. 1985-1998
  Engineering Technology & Management 1999
  o EET program 1984 - 2013
  o MSIM program 1986
  o CM program 1994
  o MNET program 1996 - 2013
  o IM program 2002 – OM 2012
• Polytechnic Center of Excellence 2001 - 2004
• Great Plains Rapid Prototyping Consortium 2002 - 2006
• Accreditation 2005, 2006
  o American Council for Construction Education (ACCE) – CM Program
  o Accreditation Board for Engineering & Technology (ABET) – EET & MNET

Present State

• Enrollments = 314 undergraduate, 20+ graduate
• Collaborations
  o Mechanical Engineering, Math & Statistics, Architecture, Ag Engineering, MET Lab
  o Daktronics, Falcon Plastics, Clark Drew
  o Mayo Clinic, USD, SUNY-Binghamton, UT-Arlington, NASA Ames & Glenn Research Centers
• Research
  o STEM Education, Theory of Residual Life Assessment, Discrete Dynamics & Management in Healthcare Systems, BIM, Productivity Improvement, Lean
Strengths

• Programs
  o Accredited by ACCE & ABET
  o Placement = 55% in South Dakota, 86% in Midwest region
  o Service courses for other units
  o Student organizations: SME, CM Club, SEET, SLX, EMH

• Facilities
  o Solberg renovation 2003; Fees cover updates to labs

• Faculty
  o Sector-specific professional experience: Average = 13 years
  o Student-focused, well connected regionally

Challenges

• Transition from teaching to research focus
  o Allocation of resources
  o GTAs, GRAs
  o Research support for start up

• Rebuilding after program terminations
  o Loss of entire year of recruitment
  o Harvesting long-term good will and alumni support

• Confusion on who we are, what we do
  o HS guidance counselors, parent perceptions
  o Outreach limited by resources, timing, scope of projects

• Resources
  o Leveraging assets to cover commitments
Opportunities

- Strength of US Manufacturing
  - Onshoring trends
  - I-29 Corridor growth
  - Need for technical professionals, productivity improvement

- Construction Industry is rebounding
  - Commercial & Heavy / Highway / Utilities
  - Program is at critical mass

- Economics – Management Initiative
  - Operations Management; links to Operations Research

- Architecture Program
  - Sustainability theme has importance to Construction, Manufacturing

- Articulation
  - Increasing interest from out-of-state programs
  - Captures best students from 2-year institutions

Discussion
2012 ETM Departmental Operating Plan

Goal 1. Recruitment and retention
   a. Increase enrollment in Construction Management and Operations Management
   b. Retain students at SDSU by supporting transfers into CM, OM
   c. Retain students in our majors via active engagement, advising, and support

Goal 2. Research and scholarship
   a. Secure new grants and contracts to generate at least 2.0 FTE offset this year
   b. Presentations and publications increase in number by 10% [baseline = 13]

Goal 3. Economic development
   a. Increase the number of industry contacts in state, regional, national, international collaborations or interactions
   b. Place more students in internships (credit or non-credit), post-graduation careers, or other experiential activities. Track via in-state vs. out-of-state
   c. Benchmark the value of industry-based student team projects

Goal 4. Sustainability
   a. Increase the number of scholarships for students in our programs
   b. Build new or stronger relationships with industry groups or companies that will result in future collaborations and support
   c. Continuous improvement of CM program curricula to assure we maintain ACCE accreditation
   d. Complete revamping of OM program curricula to align with future ABET-ASAC accreditation