

MSU Mankato
Aviation Department
Tim Brabec



Center for Excellence in Teaching and Learning

Capstone Project

April 28, 2005

Tim Brabec

Aviation

- Degree Training For
 - Management
 - Flight
- Ground



ACTIVE CLASSROOM PARADIGM

- I AM CAPTAIN IN COMMAND (PIC) AND CLASS IS GOING ON A FLIGHT
- SET ENVIRONMENT THAT FORCES THEM TO ACT AS A TEAMMEMBER BUT ARE
 - ACCOUNTABLE FOR FAA EXAM
 - CRITIQUE OTHERS IN CLASS IF ERROR IS MADE

Aviation Training Parts

1. Knowledge Training
2. Flight Training

PILOT TRAINING

- NOT ENOUGH **TIME** TO COVER ALL MATERIAL
- USE PUBLISHED TEST QUESTIONS AND MATERIAL AS “FLIGHT PLAN” TO ADDRESS ISSUES AND TRAIN STUDENTS

MSU MANKATO FLIGHT PROGRAM

LEADS TO

- FAA CERTIFICATIONS/STUDENT SUCCESS
- INSTRUCTOR ACCOUNTABILITY
- PROGRAM ACHIVEMENT

MEASUREMENTS of SUCCESS

OUTCOMES MEASURED BY
PASSING FAA EXAM

1. 1362 ATP QUESTIONS
2. 80 ON EXAM

AVIATION DEPARTMENT

- CLASS GOALS
 - PASS FAA WRITTEN
 - COMMERCIAL PILOT
 - FLIGHT ENGINEER RATING
 - AIRLINE TRANSPORT RATING
 - DEVELOP LEADERSHIP SKILLS
 - FUNCTION IN LARGE GROUP
 - DEVELOP PRESENTATION SKILLS
 - DEVELOP COMMUNICATION ABILITY
 - DEVELOP FLIGHT INSTRUCTOR SKILL AND FLYING SKILLS
 - **BECOME FLIGHT INSTRUCTOR** (TEACH)

CLASS OUTCOMES



ACTIVE CLASSROOM TOOLS

- PORTFOLIO - 9 SUBJECTS
- PROJECT PRESENTATION
 - 3000 WORDS
 - 12 MINUTE PRESENTATION
- BOOK REPORT – 15 MINUTES
- AIRLINE TEAM PRESENTATION -
- STUDENTS CONDUCT CLASS
- GAIN ENDORSEMENT TO TAKE FAA EXAM

STUDENTS RECOGNIZED THEIR ROLE IN THE PROCESS WHEN THIS HAPPENED

- I WENT FOR “CHECK RIDE” WITH DR STEWART (CLASSROOM VISIT WITH CRITIQUE)
- ONE MINUTE SURVEY
- HOW WOULD THE CLASS BE BETTER?

SURVEY

HOW WAS THIS CLASS?

- Good Not so Good Bad
– 1 2 3 4 5–
- HOW WOULD MAKE THIS CLASS BETTER?

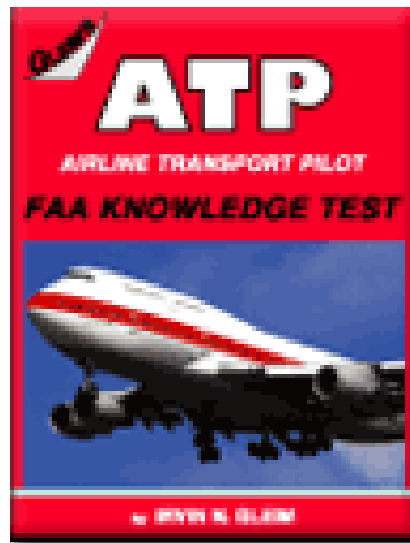
ACCOUNTABILITY



WAY TO ORGANIZE / PRIORITIZE MATERIAL

- **FAA EXAM INFORMATION PLUS
LIFE LONG INFORMATION THAT
WILL PREPARE STUDENT FOR
NEAR TERM CHALLENGES.**

FAA Knowledge Test



ACTIVE CLASSROOM IMPROVEMENT THIS YEAR

- CHANGE FROM LECTURING MATERIAL PRIOR TO QUIZZ
- 80 TO 100 QUESTION QUIZZ EACH CLASS MEETING (14)
 - (PERFORM THE WAY YOU TRAIN)
- ENRICH CLASS WITH RELATED VIDEOS, DVD'S, EXPERIENCES, GUESTS(ATC MANAGERS, PILOTS, FIELD TRIPS)

CAPSTONE PROJECT

- IMPACT ON COURSE
 - MATERIAL REVIEW AND CHANGES
 - ADDITIONAL STUDENT INVOLVEMENT
 - CLASSROOM METHODS REVIEW
 - REFRESH INSTRUCTOR TECHNIQUES
 - INCENTIVE TO COMPLETE COOPERATION AND COORDINATION EFFORTS WITH MANKATO AVIATION

CAPSTONE PROJECT

- UNDERESTIMATED STUDENTS DESIRE TO MEET SYLLABUS GOALS
- WANT THE CLASS TO RUN WITH “ACTIVE CLASSROOM TECHNIQUES”

ACTIVE CLASSROOM LESSONS LEARNED

- START WITH A “PERFECT” SYLLABUS THAT WILL
 - ALLOW STUDENTS A “SAFETY ZONE” WHERE THEY CAN TRY THINGS AND FEEL COMFORTABLE IN MAKING MISTAKES
 - GET STUDENTS TO RUN CLASS PLUS ADD PEER PRESURE TO SUCCEED
 - LEARN MATERIAL CONTENT SO THAT THEY -
 - GET READY FOR FAA EXAM
 - DEVELOP LEADERSHIP ABILITIES
 - MAKE MISTAKES

ACTIVE CLASSROOM TECHNIQUES USED

1. ORGANIZE STUDENTS AND
ASK FOR THINGS LIKE
 1. GET AN AIRLINE TEAM
TOGETHER FROM CLASS
MEMBERS TO MAKE JOINT
PRESENTATION ON A
SUCCESSFUL AIRLINE.

CAPSTONE PROJECT IMPACT

- NEW SYLABUS
- ACTIVE CLASSROOM DESIGN
 - ACTIVE CLASSROOM METHODS
- ADDED CLASSROOM ASSESSMENT TECHNIQUES
- LEADERSHIP OPPORTUNITIES AND DEVELOPMENT

CLASSROOM ACTIVITIES THAT APPLY TO REAL LIFE

- SKILLS EXERCISED
 - LEADERSHIP
 - ORGANIZATION
 - INFORMATION GATHERING
 - STUDY MULTIPLE SUCCESSFUL AIRLINES
 - DESCRIBE SUCCESSFUL PEOPLE
 - ELIMINATE UNSUCCESSFUL ATTRIBUTES
 - DECIDE WHAT TRAITS MAKE UP A SUCCESSFUL AIRLINE
 - ARTICULATE TO CLASS

FAA COMMERCIAL PILOT WRITTEN FLIGHT ENDORSEMENT

- **Thursday, April 28, 2005**

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- **I certify that I have reviewed the above individual's preparation for the FAA Commercial Pilot – Airplane Knowledge Test (covering the topics specified in CFR 61.125(b)(1) through (16) using the Gleim Commercial Pilot FAA Written Exam book and find him/her competent to pass the pilot knowledge test.**

- **Timothy Brabec 1761026 31 Dec 2005**

CETL CAPSTONE PROJECT



Aviation





CETL
CAPSTONE PROJECT

**“UNEMCOMBERED
BY THE THOUGHT
PROCESS”**