

A Bachelor Degree Program in Surveying/Geomatics Offered to Place-bound Students: Measuring Success

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FIG2005

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General Outline

- Professional Education in Surveying/Geomatics
- Distance Education
- Program at Michigan Technological University, U.S.A.

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FIG2005

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Professional Education in Surveying/Geomatics

- Need for Professional Education
- Access to Professional Education
- Non Traditional Student
- Alternative Delivery of Education

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FIG2005

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Distance Education

- An Old Concept
- Why Now?
- What has Changed Now?
- Accessible to Most Students
- Modern Delivery Techniques

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FIG2005

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USDLA Definition

"acquisition of knowledge and skills through mediated information and instruction, encompassing all technological and other forms of learning at a distance"

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FIG2005

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Distance Learning Contd.

- Learning in a university without space and time
- University is based on information network
- University is "virtual" – not physical

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FIG2005

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Advantages of Distance Learning

- ❑ Students and teachers do not need to be physically present at one location
- ❑ Learning and teaching do not need to happen at the same time

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FIG2005

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Advantages of Distance Learning Contd.

- ❑ Students can stay and work at home
- ❑ Materials are available everywhere, even mobile
- ❑ Student becomes an active learner

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FIG2005

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Advantages of Distance Learning Contd.

- ❑ Lighter workload
- ❑ Lessons can be reviewed at will and as many times as needed
- ❑ Less competition from peers

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FIG2005

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Some Disadvantages of Distance Learning

- ❑ No direct interaction with course instructor
- ❑ Course instructor not readily available for help
- ❑ No peers for help or discussion
- ❑ No real college experience

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FIG2005

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Program at Michigan Technological University, U.S.A.

- ❑ Statutory Requirement of Bachelor Degree
- ❑ Request from Industry
- ❑ Large Number of Interested Students
- ❑ Facilities Already in Place

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FIG2005

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Program at Michigan Tech. Contd.

- ❑ Early Years
- ❑ Accreditation Issue
- ❑ Present Status
- ❑ Maintaining Quality

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FIG2005

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Course Delivery

- Videotaped delayed delivery of courses
- Sites and Site Monitors
- Assignments, quizzes and exams
- Laboratory exercises (Practicals)

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FIG2005

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Accreditation Issue

- State Board of Licensing for Professional Surveyors
- Accreditation Board for Engineering and Technology
- Changes Needed

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FIG2005

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Necessary Components

- Program Administration
- Course Development and Delivery
- Technology Development
- Student Services
- Course Evaluation
- Faculty Incentives

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FIG2005

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Measuring Success

- Graduation Rate
- Student Satisfaction
- Placement
- Employer Satisfaction
- Career Advancement

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FIG2005

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Statistical Data

- 10 Years of Continuous Course Offering
- 154 Students
- 22 graduates
- Many satisfied employers

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FIG2005

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Ask the Graduates

- Survey posted on the web
- Requests sent to last known email address
- Twenty six responses received
- Generally favorable assessment

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FIG2005

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Please tell us a little bit about yourself.

Your name (optional):

The year you enrolled in the distance learning program in surveying at MTU:

Have you graduated with a BS degree in surveying? Yes No
If so, what year?

Are you licensed to practice surveying? Yes No
If so, in which state?
In what year did you earn your license?
How many attempts did it take to pass the FLS exam?
the professional practice portion?

What is your current position in your employment?

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Please rate the distance-learning BSS program by indicating whether you agree with the following statements

	strongly agree	somewhat agree	neither agree or disagree	disagree	strongly disagree
The education I received at Michigan Tech is valuable in my present employment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found the instructional material of the BSS program useful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The BSS program provides a high quality of teaching.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The feedback I recieved about my performance in the individual classes was helpful/timely/useful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I received pertinent distance learning course information (such as course registration information) in a timely and helpful manner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Please tell us how useful you found the following distance learning technologies.

	very useful	somewhat useful	not at all useful	did not use
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Videoconferencing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WebCT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Portable Document Format (PDF)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Streamed audio or video	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fax	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phone conferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Please tell us how you rate the BSS distance-learning program overall.

	strongly agree	somewhat agree	neither agree or disagree	disagree	strongly disagree
In general, I found the distance-learning program at Michigan Tech a successful learning experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend the distance-learning program to a friend or another student.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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What the Graduates Said

- ❑ Twenty six Responses
- ❑ Ten graduates
- ❑ Nine passed FLS in the first attempt
- ❑ Five already licensed.

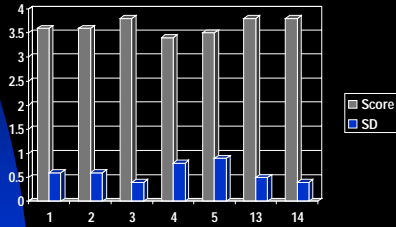
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Student Responses on Questions 1 – 5, 13 and 14 on a 5 point scale as follows

Strongly Agree	= 4
Somewhat Agree	= 3
Neutral	= 2
Somewhat Disagree	= 1
Strongly Disagree	= 0

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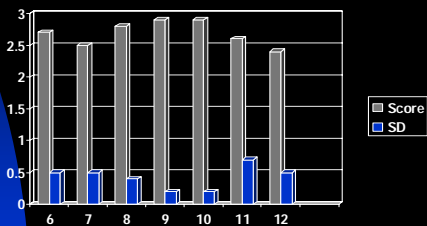
Questions 1 – 5, 13, 14



Questions 6 – 12 on a 3 point scale as follows

Very Useful = 3
Somewhat Useful = 2
Not Useful = 1

Questions 6 - 12



Conclusions

- Student satisfaction
- Employer support
- Students professional achievements
- Students career promotions