Academic Senate
Agenda for the Meeting of
Tuesday, April 2, 2013
Centennial Dining Room, Rankin Center
10:00 - 11:50 am

1. Call to Order and Roll Call

2. Approval of Minutes
    A. Mar. 5, 2013 minutes

3. Open Forum

4. Reports
    A. Senate President – Michael Berghoef
    B. Senate Vice President – Khagendra Thapa
    C. Senate Secretary – Melinda Isler

5. Committee Reports
    A. University Curriculum Committee – Sandy Alspach
    B. General Education Task Force – Fred Heck
    C. Student Government – Byron Williams
    D. Student Life Committee – Mid-Semester Recess Motion – Claire Rewold
    E. Senate Election Results – Chuck Drake

6. New Business
    A. New Degree – Penetration Testing & Secure Software Concentration for ISI-BS – Alpsach
    B. New Minor – Lean Systems Minor – Alspach
    C. UCC Manual Update – Certificate Requirement

7. Conversation with the Senate
    A. Campus Labs Course Evaluation System – Dr. Roberta Teahen
    B. NSSE Update – Dr. Roberta Teahen
    C. EMAT Update – Deb Thalner

8. Announcements

    A. FSU President - David Eisler
    B. Provost – Fritz Erickson
    C. Senate President – Mike Berghoef

9. Open Forum

10. Adjournment

Ferris State University
Academic Senate Meeting-draft

March 5, 2013

Members in Attendance: Abbasabadi, Alspach, Baker, Berghoef, Boncher, Ciaramitaro, Cook, Dakkuri, Daubert, Dinardo, Dixon, Drake, Fox, Griffin, Hanna, Isler, Jewett, Jiao, Joyce, Klatt, Locsted, Marion, Moore, Nagel, Nazar, Prakasam, Richmond, Sanderson, Schmidt, Stone, Thapa, Todd, Wancour, Yowtz
Members absent with cause: Nystrom
Members absent: Amey, Luplow, McLean, Reynolds
Ex Officio and Guests: Adeyanju, Blake, Durst, Erickson, Garrison, Heck, Johnston, Nicol, Pilgrim, Potter, Teahen, Williams, Yates, Quigley, Wilber, Campbell, Montague, Liszewski, Rivest, Matuszak, Hardman, Cooper, Keys, Baumgartner, Haneline

1.	President Berghoef called the meeting to order at 10:02 a.m.
2.	**Approval of Minutes.** Senator Jewett moved to approve the minutes. Senator Alspach seconded. The motion passed.
3.	**Open Forum.** No issues were raised.
4.	**Officer Reports.** President Berghoef that this was a busy agenda for the Senate which they would try to get through efficiently. A tribute to James Turner would be happening in the later Open Forum. The Academic Affairs budget presentation was moved on the agenda to accommodate Provost Erickson's schedule. Secretary Isler had no report.
5.	**Academic Affairs Budget Report** Budget analyst Kim Wilbur and student assistant Kayla Campbell gave a presentation on the budget. Overloads are paid by EIO if they are for off-campus classes. For online they are paid by supplemental faculty budget or by the college. Provost Erickson added some comments that the division works through incremental budgets and not on an enrollment based model. Individuals receive at least as much as the previous year and possibly some more. In 2010 most colleges were given an increase to base budget so that they would be operating in the black. Senator Hanna asked what are other uses of the supplemental faculty budget? Provost Erickson said most often adjunct and overload pay although it may also cover things like sabbatical leave coverage. Senator Hanna also asked about the EIO budget. Provost Erickson said unlike other areas, EIO operates on a cost-recovery model . Senator Hanna asked about 1/3 of their budget being supplemental faculty? Ms. Wilber noted that their budget it solely based on revenue from the previous year. Senator Dakkuri asked if a faculty teaches 25% for EIO does that money go back to the college? Provost Erickson said it would actually be just the replacement costs, which are based on the colleges. Senator Cook asked how this model translated to online courses? Provost Erickson said that online courses are still a mess, and there are drafts in the work to come up with a way to clarify and define these issues for those courses. Senator Marion asked if these costs include classroom costs? Provost Erickson said it is all merged together. Senator Hanna asked if Kendall was still separate since they were not listed in the budget? Provost Erickson said yes. Senator Drake asked where the budget puts shared people such as secretaries? Provost Erickson said the college lists FTES and is not only listing faculty positions. He encouraged Senators to review the documents and send him any further comments.
6.	**Committee Reports** Senator Alspach said that the University Curriculum Committee (UCC) had had two meetings and have two action items for later in the agenda. Senator Jewett asked for some explanation about what requires a PCAF. Senator Alspach said the idea of what needs to be considered, especially if additional resources are required. It

happens when there are three new courses. It does not automatically happen for a new program or minor if there are not three new courses.   Senator Jewett asked if it involved analysis of competition with existing campus programs. Senator Alspach said no, but consultations are strongly encouraged. Senator Schmidt said he believed the purpose of the PCAF was to get administrative buy-in before spending time on an elaborate curriculum process and he did not feel the processes should be parallel. Senator Alspach said it might help to get the administrative buy-in if they see a full proposal. Senator Nagel said that Senator Schmidt's concerns were legitimate. Senator Drake agreed. Senator Alspach noted that all UCC proposals in progress are available on the website. Senator Marion suggested that they develop a system where the fields can be repopulated into the different forms more easily. Senator Moore added that this is information you need to know about the process. President Berghoef said that needed to be brought back to the committee and the administration.

Dr. Fred Heck, chair of the General Education Task Force, said presentations on identifying learning outcomes have been FLITE and engineering technology. He had sent out a document about the three credit class proposed as part of the new structure. This course could be a stand-alone course or possibly as a modified English 150 course. Senator Cook asked if this was separate from FSUS? Dr. Heck said yes. Senator Baker asked how this effected the MACRAO requirements and community college students? Dr. Heck said it should not affect this. Dr. Haneline, interim Language and Literature Department Head said he had been working on combining the outcomes with writing content.   This is an essentially content neutral class and the department is working on this. Senator Nagel said he supported this idea. Senator Alspach asked about students who skip to 250? Dr. Haneline said approximately 25% skip 150 but this is the highest percentage of students without creating a required stand-alone class. Senator Hanna asked where this is in the total credit mix? Dr. Heck said same number of credits required.   Senator Dakkuri said it was good to review both options but when will a decision be made? President Berghoef said no decision has been made yet. Senator Jewett asked why English 250 has not been considered as a choice? Dr. Haneline said that it was not as appropriate a class. Senator Moore asked why not FSUS?   Dr. Heck said FSUS was less about academics and more about an introduction to college life.

Student Government President Byron Williams said they were in the election process and encouraged everyone to get involved with the Big Event.

Senator Daubert, from the Health Promotions Committee, spoke about the process to attempt to make Ferris State University a smoke-free campus. Information had been presented to the Senators in their packeets and she had Whitney Rivers, RSO president of Colleges Against Cancer and Maria Mataaposta (sp?) from the American Cancer Society, speak to the issues. A 2010 student survey supported a move and they have been working with both the campus and city of Big Rapids. The current 25 foot rule is confusing and not well enforced. Senator Cook asked for information showing smoke free is a good recruitment tool. Senator Dakkuri asked what accommodations could be provided for smokers in this environment. Senator Thapa spoke in support of this issue. Senator Wancour said her student in the dental hygiene clinic always counsel patients against smoking.

7.	**Election of Senate Vice-President** Senator Drake asked the two candidates to speak briefly on their qualifications. Senator Marion and Senator Thapa both spoke. Senator Thapa won the election for Vice-President for the remainder of the 2012-2013 year with a vote of 18-16.
8	**Computer Information Technology- New Minor** Senator Alspach moved to accept the new minor. It was seconded by Senator Nazar. Program champion Clyde Hardman spoke to the major which was a natural addition to the existing major and it was not focused on hardware and not a competitor to CNS. Senator Jewett disagreed and pointed out this was in direct competition if you read the materials closely. He reminded the Senate of his comments when the major was created three years ago. Mr. Hardman said the discussion was about the minor and not the major. Senator Schmidt added he found it disturbing that Ferris has two very similar programs competing for the same students. A vote was taken and the program passed 21-9 with two abstentions.
9	**Associates in Marketing- New Degree** Senator Alspach moved to accept the program. Senator Nazar seconded. Dr. Mike Cooper was there to speak to the program. Senator Nagel complimented the proposal for allowing consistent advising for students. Senator Wancour asked if there as a certificate option- there was. Motion passed.

10.	**Conversations with the Senate- Campus Labs Course Evaluation/ NSSE Update** Associate Provost Robbie Teahan said this new solution came out of discussions and recommendations of the Senate to fix the online evaluation process. This semester all course evaluations done by SAI are being moved to this vehicle. There was no benefit in doing a test of a subsection of classes. Senator Hanna asked about the IDEA forms- Vice-Provost Teahan said this was not in effect for that form, and it was not mandating a change to that form. . Senator Dakkuri asked about low participation rates? Vice-Provost Teahan said they were aware of that issue and were working to create some possible incentives. One benefit to this system is faculty would have their results immediately after turning in grades. Senator Thapa asked about the process of testing system and changes in policies. The conversation on NSSE data was postponed to the March meeting because of the time.
11.	**Announcements.** President Eisler was not present Provost Erickson had no report.
12.	**Open Forum.** College of Pharmacy Dean gave a tribute to emeriti James B. Turner) who worked in the College of Pharmacy from 1975-1994. He served primarily as the Associate dean and oversaw the transition of the program to a doctorate. Senator Nagel and Thapa spoke in support of a smoke free campus. Thapa said it also needed to include smokeless tobacco.
13.	The meeting was ended at 11:56 a.m.

PROPOSAL SUMMARY AND ROUTING FORM

Revised September 2012

Proposal Title: Penetration Testing and Secure Software Concentration – *for* ISI-BS

Initiating Individual: Gerald Emerick   nitiating Department or Unit: **AFIS / COB**
Contact Person's Name: Gerald Emerick   e-m .: emericg1@ferris.edu phone: 231-591-3048

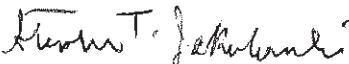x Group I - A – New degree, major, concentr   on, minor, or redirection of a current offering

☐   Group I - B – Deletion of a degree, majc   .oncentration, or minor

x Group II - A – New Course, modificatio   f a course, deletion of a course

☐   Group II - B – Minor curriculum clea' Jp

☐   Group III – Certificates (☐ College C .dit ☐ Non-Credit)

☐   Group IV – Other Site Locations (☐ College Credit ☐ Non-Credit)

	Signature	Date	Vote/Action * Number count **
Program Representative **	*Gerald Emerick*		5 Support ___Support with Concerns ___Not Support ___Abstain
Department/School/Faculty Representative Vote **	*Gerald Emerick*		14 Support ___Support with Concerns ___Not Support ___Abstain
Department/School Administrator	*James R Wm*	2/19/13	✓Support ___Support with Concerns ___Not Support
College Curriculum Committee/Faculty	*Kevin T. Jakulanti*	2/19/13	25̶ Support ⑤ Support with Concerns ___Not Support ___Abstain
Dean	*signature*	2/20/13	✓Support ___Support with Concerns ___Not Support
University Curriculum Committee **	*Sandy Alspach*	3/27/13	7 Support 0 Support with Concerns 0 Not Support 0 Abstain
Senate **			___Support ___Support with Concerns ___Not Support ___Abstain
Academic Affairs			___Support ___Hold ___Not Support

* Support with Concerns or Not Support <u>must</u> include identification of specific concerns with appropriate rationale.
** Number count <u>must</u> be given for all members present and/or voting.

To be completed by Academic Affairs	Date/Term of Implementation: _____

_____   _____   _____
President (Date Approved)   Board of Trustees (Date Approved)   Academic Officers of MI (Date Approved)

1. Proposal Summary
(Summary is generally less than one page. Briefly: state what is proposed with a summary of rationale and highlights.)

The most common target of information security attacks are through software applications such as web sites, mobile applications, custom and COTS (Commercial Off the Shelf) applications, cloud environments, PCI applications and databases. Recent studies indicate that more than 50% percent of software applications are vulnerable to security breaches due to insecure design, development and testing practices. Jobs in secure software are included in the top IT positions by the SANS institute and others with an increase in positions of 33% over the last year. Building on our programs growing leadership in the field of information security in the State of Michigan in offering our students education in pertinent security fields, we believe it is timely and relevant to add a Penetration Testing and Software Security concentration to our undergraduate Information Security and Intelligence program.

There are no changes requested to the business core or the ISI major core. The new courses will be offered in 15 week sessions utilizing online and classroom formats.

The two new proposed course offerings are:

- Fall – ISIN 430 Penetration Testing and Mobile Security
- Spring – ISIN 335 Penetration Testing and Cloud Security

Program Outcomes

In addition to the current program outcomes the following outcomes will be added to the ISI program as result of the two new courses:

1) Integrates application architecture and software security through penetration testing techniques
2) Integrates information security and secure software development

Removal of Applied Networking Concentration

- In addition to the two new courses and concentration described above this proposal removes the Applied Networking concentration from the undergraduate ISI program and the ISI checksheet. This concentration is no longer desired for a number of reasons including complications with prerequisite classes and the desire to keep the concentrations offered in ISI to a manageable number. These courses are listed in section 2.e below.
- No changes in program outcomes as a result of removing this concentration

2. Summary of Curricular Action (check all that apply to this proposal)

☐ Degree ☐ Major ☐ Minor ☒ Concentration ☐ Certificate ☒ Course

☐ New ☐ Modification ☐ Deletion

Name of Degree, Major, etc. : _____

3. Summary of All Course Action Required Contact Senate Secretary or UCC Chair if additional spaces are required.

a. Newly Created Courses to be Added to FSU Catalog:
   Prefix   Number   Title

   ISIN   335   Penetration Testing and Cloud Security

   ISIN   430   Penetration Testing and Mobile Security

b. Courses to be Deleted from FSU Catalog:
   Prefix   Number   Title

c. Existing Course(s) to be Modified:
   Prefix   Number   Title

d. Addition of existing FSU courses to program
   Prefix   Number   Title

e. Removal of existing FSU courses from program
   Prefix   Number   Title
   ECNS   115   Networks 1

   ECNS   125   Networks 2

   ECNS   215   Networks 3

   ECNS   225   Networks 4

4. Summary of All Consultations

Form Sent (B or C)	Date Sent	Responding Dept.	Date Received & by Whom

See attached Form B and C documents.

5. Will External Accreditation be sought? (For new programs or certificates only)

☐ Yes   ☒ No

If yes, name the organization involved with accreditation for this program.

6. Program Checksheets affected by this proposal (check all that apply to this proposal)

☒ Add Course ☐ Delete Course ☐ Modify Course ☐ Change Prerequisite ☐ Move from required to elective
☐ Move from elective to required ☐ Change Outcomes and Assessment Plan ☐ Change credit hours

List all Checksheets affected by this proposal:
College   Department   Program

See attached checksheets both current and proposed
Information Security and Intelligence

CURRICULUM CONSULTATION FORM

To be completed by each department affected by the proposed change, new degree, new program, new minor, or new course. Potential duplication of coursework is reason for consultation.

1. This completed form must be forwarded with the proposal to the chair/head of the department to be consulted.

2. The department must respond within 20 calendar days of receipt of this form to insure inclusion in the final proposal. The completed form is returned to the initiator and inserted into the proposal.

   Failure to respond is interpreted as support for the proposal.

3. The Proposing Department must address any concerns raised by the department. This response will be in writing and be included in the proposal following the consultation form.

RE: Proposal Title Penetration Testing and Software Security Concentration

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Initiator(s):Gerald J. Emerick

Proposal Contact: Gerald J. Emerick **Date Sent**: January 15th, 2013

Department: AFIS Campus Address: IRC 220
(Please print)

Responding Department: CIS

Chair/Head/Coordinator: Clyde Hardman   Date Returned: _1/15/2013_

Based upon department faculty review on _1/15/13_(date), we

    ☒ Support the above proposal.
    ☐ Support the above proposal with the modifications and concerns listed below.
    ☐ Do not support the proposal for the reasons listed below.

Comment regarding the impact this proposal has on scheduling, room assignments, faculty load, and prerequisites for your department. Use additional pages, if necessary.

    Per the PACF we are estimating the need for one adjunct faculty member to teach one of the concentration courses per year. In addition, we are anticipating that our new faculty member will help to mitigate the additional course load across the current faculty team.

I believe the new concentration will attract additional students that will take courses in both the CIS program and ISI programs and offer the CIS students additional programming related course offerings.

FLITE SERVICES CONSULTATION FORM

To be completed by the liaison librarian and approved by the Dean of FLITE. All returned forms should be included in the proposal. **FLITE must respond within 20 calendar days of receipt of this form to insure that the form is included in the final proposal.**

FAILURE TO RESPOND IS CONSIDERED AS SUPPORT OF THE CHANGE.

RE: Proposal Title: ISIN 335 – Penetration Testing and Cloud Security

Projected number of students per year affected by proposed change: 100

Initiator(s): Information Security & Intelligence Program

Proposal Contact: Gerald J. Emerick **Date Sent:** _____

Department: AFIS Campus Address: 220 IRC
(Please print)

Liaison Librarian Signature: *David A Scott* **Date:** 1-23-13

Dean of FLITE Signature: *[signature]* **Date Returned:** 2/1/13

Based upon our review on 1-23-13 (date), FLITE concludes that:

[X] Library resources to support the proposed curriculum change are currently available.

[ ] Additional Library resources are needed but can be obtained from current funds.

[ ] Support, but significant additional Library funds/resources are required in the amount of
$_____ .

[ ] Does not support the proposal for reasons listed below.

Comment regarding the impact this proposal will have on library resources, collection development, programs, etc. Use additional pages if necessary.

FLITE SERVICES CONSULTATION FORM

To be completed by the liaison librarian and approved by the Dean of FLITE. All returned forms should be included in the proposal. **FLITE must respond within 20 calendar days of receipt of this form to insure that the form is included in the final proposal.**

FAILURE TO RESPOND IS CONSIDERED AS SUPPORT OF THE CHANGE.

RE: Proposal Title: <u>ISIN 430 – Penetration Testing and Mobile Security</u>

Projected number of students per year affected by proposed change: <u>100</u>

Initiator(s): <u>Information Security & Intelligence Program</u>

Proposal Contact: <u>Gerald J. Emerick</u> Date Sent: _____

Department: **AFIS** Campus Address: **220 IRC**
(Please print)

Liaison Librarian Signature: *David A Scott*   Date: 1-23-13

Dean of FLITE Signature: _____ Date Returned: 2|1|13

Based upon our review on 1-23-13 (date), FLITE concludes that:

☑ Library resources to support the proposed curriculum change are currently available.

☐ Additional Library resources are needed but can be obtained from current funds.

☐ Support, but significant additional Library funds/resources are required in the amount of $_____.

☐ Does not support the proposal for reasons listed below.

Comment regarding the impact this proposal will have on library resources, collection development, programs, etc. Use additional pages if necessary.

Ferris State University - College of Business
BACHELOR OF SCIENCE DEGREE IN INFORMATION SECURITY & INTELLIGENCE
120 Credits Required

NAME: _____   *ID#:* _____

REQUIRED		COURSE TITLE - PREREQUISITES SHOWN IN BRACKETS ( )	S.H.	GRADE
General Education Requirements (40-41 hours)			**40-41**	
COMMUNICATION COMPETENCE - 12 Credits Required				
Consult the Ferris website: www.ferris.edu/htmls/academics/gened/bscomm.html.html for level approved courses				
COMM	105 or 121	Interpersonal Communication / Fundamentals of Public Speaking	3	
ENGL	150	English 1 (ENGL 074 or 14> ACT or 370 > SAT)	3	
ENGL	250	English 2 (ENGL 150 w/C-)	3	
ENGL	311 or 321 or 325	Advanced Technical Writing (ENGL 250 or ENGL 211 w/C) / Advanced Composition (ENGL 250 or ENGL 211 w/C) / Advanced Business Writing (ENGL 250 or ENGL 211 w/C)	3	
SCIENTIFIC UNDERSTANDING - 7 to 8 Credits Required				
Consult the Ferris website: www.ferris.edu/htmls/academics/gened/scicourses.html for approved courses.				
		Scientific Understanding w/ lab	4	
		Scientific Understanding Elective (lab or non-lab)	3 or 4	
QUANTITATIVE SKILLS - 3 Credits Required				
Consult the Ferris website: www.ferris.edu/htmls/academics/gened/bsquant.html for approved courses.				
MATH	115	Intermediate Algebra (Undergraduate level MATH 110 Minimum Grade of C- or ACT Math 19 or SAT Mathematics (old) 460 or Algebra 1--Supplemental Math 16 or Algebra 2-Supplemental Math 1 or SAT1 Math 460) If MATH ACT is 24 or higher, substitute a general education elective.	3	
CULTURAL ENRICHMENT - 9 Credits Required				
Consult the Ferris website: www.ferris.edu/htmls/academics/gened/cultcourses.html for approved courses				
		Cultural Enrichment Elective (Foreign Language Recommended)	3	
		Cultural Enrichment Elective	3	
		Cultural Enrichment Elective (200 level or above)	3	
SOCIAL AWARENESS - 9 Credits Required*				
Consult the Ferris website: www.ferris.edu/htmls/academics/gened/soccourses.html for level approved courses				
		Social Awareness Elective	3	
		Social Awareness Elective	3	
		Social Awareness Elective (200 level or above)	3	
NOTICE REGARDING WITHDRAWAL, RE-ADMISSION AND INTERRUPTION OF STUDIES				
Students who return to the university after an interrupted enrollment (not including summer semester) must normally meet the requirements of the curriculum which are in effect at the time of their return, not the requirements which were in effect when they were originally admitted.				

* Race/Ethnicity/Gender may be satisfied by some Social Awarement courses. Consult with your advisor.

Advising Notes:
Global consciousness requirement satisfied by _____.
Race/ethnicity/gender requirement satisfied by _____.
FSUS requirement satisfied by _____.
A 2.00 cumulative GPA is required in the major, concentration and overall.

40 credit hours must be at the 3xx - 4xx level.
30 credit hours must be Ferris classes.
Total Gen Ed Credits - 40, Total Business Core Credits - 16, Total ISI Core Credits - 45, Total Concentration Credits - 12, Directed Elective Credits - 7, TOTAL CREDITS - 120

Effective Fall 2012

Ferris State University - College of Business
BACHELOR OF SCIENCE DEGREE IN INFORMATION SECURITY & INTELLIGENCE

REQUIRED		COURSE TITLE - PREREQUISITES SHOWN IN BRACKETS ( )	S.H.	GRADE
Major Core and Concentration Requirements (72 credit hours)			**72**	
BUSINESS COURSES - 15 Credits Required				
ACCT	201	Principles of Accounting I (MATH 110 w/C- or ACT 19 or SAT 460)	3	
STQM	260	Introduction to Statistics (MATH 115 w/C- or 24 ACT or 560 SAT)	3	
MGMT	301	Applied Management	3	
MKTG	321	Principles of Marketing (sophomore status or instructor permission)	3	
MGMT	350	Management Metrics & Decision Making	3	
INFORMATION SECURITY AND INTELLIGENCE MAJOR COURSES - 45 Credits Required				
STQM	270	Introduction to Data Mining (STQM 260 or CCHS 315 or MATH 251 or MFGE 341 or PSYC 210 or SOCY 371 w/C-)	3	
STQM	360	Risk Analysis and Strategy (STQM 260 w/C- or better)	3	
ISIN	200	All Things Digital	3	
HSCJ	202	Introduction to Information Security (None)	3	
ISIN	312	Applications of Information Security (HSCJ 202, ISIN 200)	3	
HSCJ	310	Digital Forensics and Analysis (HSCJ 202)	3	
ISYS	200	Database Design and Implementation (ISYS 105)	3	
HSCJ	317	Fraud Examination	3	
ISIN	429	Legal & Ethical Issues in Information Security	3	
ISIN	300	Link and Visual Analysis	3	
ISIN	301	Data Intelligence Competitive Theory (ISIN 220, ISYS 200)	3	
PROJ	320	Project Management Fundamentals	3	
ISIN	380	Current Issues in Information Security & Intelligence (HSCJ 202)	3	
ISIN	491	Internship	3	
ISIN	499	Capstone Experience (Senior Standing)	3	
CONCENTRATION** or approved minor - 12 Credits Required - ADVISOR APPROVAL REQUIRED				
		Concentration Class 1	3	
		Concentration Class 2	3	
		Concentration Class 3	3	
		Concentration Class 4	3	
DIRECTED ELECTIVES - 7 to 8 Credits Required - ADVISOR APPROVAL REQUIRED				
Directed Electives (7-8 credit hours)			**7-8**	
		Directed Elective	3	
		Directed Elective	3	
		Directed Elective	1 or 2	
		TOTAL CREDIT HOURS REQUIRED	**120**	

**Concentrations may be selected from one of the following options or a custom concentration my be developed with advisor approval.
(all classes and concentrations may not be available at all campuses - Main Campus only options are indicated by ***)

Concentrations	Classes
Data Mining***	STQM 342, STQM 380, STQM 322, ISYS 371
GIS	GISC 225, GISC 282, GISC 382, ISYS 371
Digital Forensics	HSCJ 315, ISYS 216, ISYS 325, ISYS 371
Network Security	ISYS 277, ISYS 325, Elective, Elective
Project Management	PROJ 350, PROJ 351, PROJ 420, MGMT 370
Software Development	ISYS 216, ISYS 316, ISYS 204, ISYS 304
Applied Networking	ECNS 115, ECNS 125, ECNS 215, ECNS 225
Business	ACCT 202, FINC 322, MGMT 370, BLAW 321
National Security	ISIN 350, ISIN 351, ISIN 352, Directed Elective
Foreign Language	Transfer (12 credit hours)

Effective Fall 2012

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PROPOSED Fall 2013

BACHELOR OF SCIENCE DEGREE IN INFORMATION SECURITY & INTELLIGENCE

REQUIRED		COURSE TITLE - PREREQUISITES SHOWN IN BRACKETS ( )	S.H.	GRADE
Major Core and Concentration Requirements (72 credit hours)			**72**	
BUSINESS COURSES - 15 Credits Required				
ACCT	201	Principles of Accounting I (MATH 110 w/C- or ACT 19 or SAT 460)	3	
STQM	260	Introduction to Statistics (MATH 115 w/C- or 24 ACT or 560 SAT)	3	
MGMT	301	Applied Management	3	
MKTG	321	Principles of Marketing (sophomore status or instructor permission)	3	
MGMT	350	Management Metrics & Decision Making	3	
INFORMATION SECURITY AND INTELLIGENCE MAJOR COURSES - 45 Credits Required				
STQM	270	Introduction to Data Mining (STQM 260 or CCHS 315 or MATH 251 or MFGE 341 or PSYC 210 or SOCY 371 w/C-)	3	
STQM	360	Risk Analysis and Strategy (STQM 260 w/C- or better)	3	
ISIN	200	All Things Digital	3	
HSCJ	202	Introduction to Information Security (None)	3	
ISIN	312	Applications of Information Security (HSCJ 202, ISIN 200)	3	
HSCJ	310	Digital Forensics and Analysis (HSCJ 202)	3	
ISYS	200	Database Design and Implementation (ISYS 105)	3	
HSCJ	317	Fraud Examination	3	
ISIN	429	Legal & Ethical Issues in Information Security	3	
ISIN	300	Link and Visual Analysis	3	
ISIN	301	Data Intelligence Competitive Theory (ISIN 220, ISYS 200)	3	
PROJ	320	Project Management Fundamentals	3	
ISIN	380	Current Issues in Information Security & Intelligence (HSCJ 202)	3	
ISIN	491	Internship	3	
ISIN	499	Capstone Experience (Senior Standing)	3	
CONCENTRATION** or approved minor - 12 Credits Required - ADVISOR APPROVAL REQUIRED				
		Concentration Class 1	3	
		Concentration Class 2	3	
		Concentration Class 3	3	
		Concentration Class 4	3	
DIRECTED ELECTIVES - 7 to 8 Credits Required - ADVISOR APPROVAL REQUIRED				
Directed Electives (7-8 credit hours)			**7-8**	
		Directed Elective	3	
		Directed Elective	3	
		Directed Elective	1 or 2	

TOTAL CREDIT HOURS REQUIRED　　120

Concentrations may be selected from one of the following options or a custom concentration may be developed with advisor approval-all classes and concentrations may not be available at all campuses-Main Campus only options are indicated by *.

Concentrations	Classes
Data Mining***	STQM 342 (STQM 270 w/C-), STQM 380 (STQM 342 w/C-), STQM 322 (STQM 260 w/C-), ISYS 371 (ISYS 200, ISYS 216)
GIS	GISC 225, GISC 282 (GISC 225), GISC 382 (GISC 225), ISYS 371 (ISYS 200, ISYS 216)
Digital Forensics	HSCJ 315 (HSCJ 310), ISYS 216 (ISYS 110, MATH 110), ISYS 325 (ISYS 105), ISYS 371 (ISYS 200, ISYS 216)
Penetration Testing & Secure Software	ISIN 305, ISIN 335 (HSCJ 202 and ISIN 305 OR HSCJ 202 and ISYS 288), ISIN 430 (ISIN 335, ISYS 200) Directed Elective
Network Security	ISYS 277 (ISYS 105), ISYS 325 (ISYS 105), Elective, Elective
Project Management	PROJ 350 (PROJ 320), PROJ 351 (PROJ 320), PROJ 420 (PROJ 320, PROJ 350, PROJ 351), MGMT 370
Software Development	ISYS 216 (ISYS 110, MATH 115), ISYS 316 (ISYS 216 or ECNS 311), ISYS 204 (ISYS 105), ISYS 304 (ISYS 204)
Business	ACCT 202 (ACCT 201 w/C-), FINC 322 (ACCT 202, MATH 115), MGMT 370, BLAW 321
National Security	ISIN 350 (HSCJ 202), ISIN 351 (HSCJ 202), ISIN 352 (HSCJ 202), Directed Elective
Foreign Language	Transfer (12 credit hours)

PROPOSED Fall 2013

ISIN Course Schedule

Color Key:

Core	=	Green
General Education	=	Red
Elective / Concentration	=	Blue

Fall – Year One — Credits:

Course	Credits
Comm 105/121	3
Math 115	3
Cultural Enrichment 1 Elective	3
Social Awareness 1 Elective	3

TOTAL CREDITS THIS SEMESTER: 12 In total: 12

Spring – Year One

Course	Credits
Engl 150 (ENGL 074 or 14> ACT or 370 > SAT)	3
Scientific Understanding Elective	3 or 4
Cultural Enrichment 2 Elective	3
Social Awareness 2 Elective	3

TOTAL CREDITS THIS SEMESTER: 12/13 In total: 24/25

Summer – Year One (optional)

Course	Credits
Cultural Enrichment Elective (200 level or above)	3
Social Awareness Elective (200 level or above)	3
Engl 250	3
Scientific Understanding with lab Elective	4

TOTAL CREDITS THIS SEMESTER: 13 In total: 37/38

Fall – Year Two

Course	Credits
ACCT 201	3
HSCJ 202	3
ISIN 200	3
ISYS 200	3

TOTAL CREDITS THIS SEMESTER: 12 In total: 49/50

SPRING – Year Two

Course	Credits
MKT 321	3
STQM 260	3
HSCJ 310	3
Concentration class option or directed elective	3

TOTAL CREDITS THIS SEMESTER: 12 In total: 61/62

SUMMER – Year Two (optional)

HSCJ 317	3
ISIN 300	3
MGMT 301	3

TOTAL CREDITS THIS SEMESTER: 9   **In total: 70/71**

FALL – Year Three

STQM 270	3
ENG 311 or 321 or 325	3
MGMT 350	3
Concentration class option or directed elective	3

TOTAL CREDITS THIS SEMESTER: 12   **In total: 82/83**

SPRING – Year Three

ISIN 301	3
PROJ 320	3
ISIN 380	3
Concentration class option or directed elective	3

TOTAL CREDITS THIS SEMESTER: 12   **In total: 94/95**

SUMMER – Year Three

ISIN 429	3
Internship	3
Concentration class option or directed elective	3

TOTAL CREDITS THIS SEMESTER: 9   **In total: 103/104**

FALL – Year Four

STQM 360	3
Concentration class option or directed elective	3
Concentration class option or directed elective	3

TOTAL CREDITS THIS SEMESTER: 9   **In total: 112/113**

SPRING – Year Four

ISIN 499 Capstone Experience	3
ISIN 312	3
Concentration class option or directed elective	3

TOTAL CREDITS THIS SEMESTER: 9   **In total: 121/122**

NEW COURSE INFORMATION FORM

Course Identification:

Prefix:	**Number**	**Title**
ISIN	335	**Penetration Testing and Cloud Security**

Course Description:
Students will examine secure software applications utilizing a leading application assurance framework. Students will be introduced to penetration testing, common application attacks, vulnerabilities, and countermeasures in the context of web applications. This course will introduce both offensive and defensive security mechanisms to promote quality software assurance. Prerequisites: HSCJ 202 and ISIN 305 OR HSCJ 202 and ISYS 288

Course Outcomes and Assessment Plan:
1. Demonstrate an understanding of secure web application technologies
   - **Assessment:** presentation, demonstration, project, and/or final exam
2. Apply penetration testing to evaluate web application security.
   - **Assessment:** presentation, demonstration, project, and/or final exam
3. Apply penetration test scripting and application defense.
   - **Assessment:** presentation, demonstration, project, and/or final exam

Course Outline including Time Allocation:

Secure Web Application Technologies (30%)
   a. Application architecture
   b. Session Management
   c. Protocols
   d. Secure code analysis

Penetration Testing (40%)
   a. Vulnerability Analysis
   b. Countermeasures
   c. Offense and Defense Mechanisms

Scripting (30%)
   a. Data Sanitization
   b. White and Black Listing Techniques
   c. Test driven scripting

NEW COURSE INFORMATION FORM

Course Identification:

Prefix:	Number	Title
ISIN	430	**Penetration Testing and Mobile Security**

Course Description:

Students will apply a penetration testing methodology using a mobile application assurance framework. Students will complete course projects that incorporate penetration testing techniques against applications that integrate data and utilize cloud services in a mobile environment. This course will utilize both offensive and defensive security mechanisms to promote quality software assurance. Prerequisites: ISIN 335, ISYS 200.

Course Outcomes and Assessment Plan:

1. Integrate secure database technology
   - **Assessment**: presentation, demonstration, project, and/or final exam
2. Integrate secure cloud services
   - **Assessment**: presentation, demonstration, project, and/or final exam
3. Penetration test secure applications.
   - **Assessment**: presentation, demonstration, project, and/or final exam

Course Outline including Time Allocation:

Secure Applications (30%)
   a. Application structure
   b. Scripting
   c. Security
   d. Testing and Deployment

Penetration Testing 30%)
   a. Vulnerability Analysis
   b. Countermeasures
   c. Offensive and Defensive Mechanisms
   d. Scripting

Secure Data Integration (20%)
   a. Connections
   b. Reading and Writing Data
   c. Transactions
   d. Data Sanitization

Secure Cloud Services (20%)
   a. Architecture
   b. Controls
   c. Security
   d. Testing and Deployment

CREATE NEW COURSE
Course Data Entry Form

FORM F

Create New Course
Rev. 07/23/07

I. ACTION TO BE TAKEN: CREATE A NEW COURSE

Notes
1. Complete each item in Section I and Section II.
2. If this course is to be used as a prerequisite for other university courses, Form Fs that reflect the prerequisite change must be submitted for those courses as well.

Term Effective (6 digit code only): 201308 **Examples: 200801(Spring), 200805(Summer), 200808(Fall)**
Note: The first four digits indicate year, the next two digits indicate month in which term begins.

II. PROPOSED FOR NEW COURSE: Complete all sections a through r, See manual for clarification.

a. Course Prefix   b. Number   c. Enter Contact Hours per week in boxes.
ISIN   335   LECture 3   LAB ☐   INDependent Study – Check (x) ☐
                                         Practicum: ☐   Seminar: ☐

d. Course Title: Pen Testing & Cloud Security   (Limit to 30 characters/spaces.)

e. College Code: COB   f. Department Code: AFIS
Credit Hours: Check (x) type and enter maximum and minimum hours in boxes.

g. Type: ☐ Variable   X Fixed. Minimum Credit Hours 3 i. Maximum Credit Hours 3 .

j. May Be Repeated for Added Credit: Check (x) ☐ Yes   X No

k. Levels: Check (x) X Undergraduate ☐ Graduate ☐ Professional

l. Grade Method: Check (x) X Normal Grading   ☐ Credit/No Credit only (Pass/Fail)

m. Does proposed new course replace an equivalent course? Check (x) ☐ Yes   X No

n. Equivalent course: Prefix ☐   Number ☐   See instructions on Replacement courses.

o. CATALOG DESCRIPTION – Limit to 75 words – PLEASE BE CONCISE.
Students will examine secure software applications utilizing a leading application assurance framework. Students will be introduced to penetration testing, common application attacks, vulnerabilities, and countermeasures in the context of web applications. This course will introduce both offensive and defensive security mechanisms to promote quality software assurance.   Prerequisites: HSCJ 202 and ISIN 305 **OR** HSCJ 202 and ISYS 288

p. Term(s) Offered: Spring (See instructions for listing.)   q. Max. Section Enrollment: 20

r. Prerequisites/Co-requisites/Restrictions: (If none, leave blank.) Limited to 100 spaces HSCJ 202 and ISIN 305 OR HSCJ 202 and ISYS 288.

UCC Chair Signature/Date: *Sandy Alspach* 3 / 27/ 13	**Academic Affairs Approval Signature/Date:** _____ _/_/_

To be completed by Academic Affairs Office: - Standard & Measures Coding and General Education Code
☐ Basic Skill (BS) ☐ General Education (GE) ☐ Occupational Education (OC) ☐ G.E. Codes

Office of the Registrar use ONLY

Date Rec'd: ____   Date Completed: ____   Entered: SCACRSE __ SCADETL __ SCARRES __ SCAPREQ __

CREATE NEW COURSE
Course Data Entry Form

FORM F

I. ACTION TO BE TAKEN: CREATE A NEW COURSE

Notes
1. Complete each item in Section I and Section II.
2. If this course is to be used as a prerequisite for other university courses, Form Fs that reflect the prerequisite change must be submitted for those courses as well.

Term Effective (6 digit code only): 201308 **Examples: 200801(Spring), 200805(Summer), 200808(Fall)**
Note: The first four digits indicate year, the next two digits indicate month in which term begins.

II. PROPOSED FOR NEW COURSE: Complete all sections a through r, See manual for clarification.

a. Course Prefix **b.** Number **c.** Enter Contact Hours per week in boxes.
ISIN 430 LECture 3 LAB ☐ INDependent Study – Check (x) ☐
Practicum: ☐ Seminar: ☐

d. Course Title: Pen Testing & Mobile Security (Limit to 30 characters/spaces.)

e. College Code: COB **f.** Department Code: AFIS
Credit Hours: Check (x) type and enter maximum and minimum hours in boxes.

g. Type: ☐ Variable X Fixed. Minimum Credit Hours 3 **i.** Maximum Credit Hours 3 .

j. May Be Repeated for Added Credit: Check (x) ☐ Yes X No

k. Levels: Check (x) X Undergraduate ☐ Graduate ☐ Professional

l. Grade Method: Check (x) X Normal Grading ☐ Credit/No Credit only (Pass/Fail)

m. Does proposed new course replace an equivalent course? Check (x) ☐ Yes X No

n. Equivalent course: Prefix ☐ Number ☐ See instructions on Replacement courses.

o. CATALOG DESCRIPTION – Limit to 75 words – PLEASE BE CONCISE.
Students will apply a penetration testing methodology using a mobile application assurance framework. Students will complete course projects that incorporate penetration testing techniques against applications that integrate data and utilize cloud services in a mobile environment. This course will utilize both offensive and defensive security mechanisms to promote quality software assurance. Prerequisites: ISIN 335, ISYS 200.

p. Term(s) Offered: Fall (See instructions for listing.) **q.** Max. Section Enrollment: 20

r. Prerequisites/Co-requisites/Restrictions: (If none, leave blank.) Limited to 100 spaces. ISIN 335, ISYS 200.

UCC Chair Signature/Date: **Academic Affairs Approval Signature/Date:**

Sandy Alspach 3/27/13 _____ _/_/_

To be completed by Academic Affairs Office: - Standard & Measures Coding and General Education Code
☐ Basic Skill (BS) ☐ General Education (GE) ☐ Occupational Education (OC) ☐ G.E. Codes

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Office of the Registrar use ONLY

Date Rec'd: _____ Date Completed: _____ Entered: SCACRSE __ SCADETL __ SCARRES __ SCAPREQ __

Ferris State University
Preliminary Curriculum Approval Form

Directions: This form should be completed using 11-point font or larger, and should be no longer than six pages (excluding the signature/comment pages and references). For purposes of expediting the preliminary approval process, forms may be forwarded electronically by the initiator and from one administrative level to another.

Name(s) of proposal Initiator(s):	Gerald Emerick
Department(s)/College(s):	AFIS, College of Business

Type of curriculum change (check one)

☐	New degree/major
☐	New minor requiring new courses/resources
x	New concentration in existing degree program
☐	Curricular customization of existing program for off-campus cohort group
☐	New certificate requiring 3 or more new courses and/or new resources
☐	Existing program redirection or shift in emphasis if 3 or more new courses and/or new resources are required

1. Name of degree, major, concentration, certificate, or minor. Briefly describe the curriculum plan/template.

Penetration Testing and Secure Software

2. Target date for implementation. *Fall 2013*

3. Briefly explain the rationale for this initiative. If the initiative involves customization of an existing program for delivery to an off-campus cohort group, also explain the nature of the proposed curricular customization. *The most common target of information security attacks are through software applications such as web sites, mobile applications, custom and COTS (Commercial Off the Shelf) applications, cloud environments, PCI applications and databases. The two new courses focus on techniques to test the security of these applications and design security into the software.*

4. Are there similar programs at other Michigan universities? If so, where? What is the enrollment in the other programs? *Eastern Michigan and Davenport. Enrollment numbers are not available.*

5. Briefly explain any similarities of the proposed initiative (program objectives and/or curriculum) with already established FSU or KCAD programs: *This is a unique program offering with in the university focused on cyber security, penetration testing, and secure software.*

6. Briefly describe indicators of the employment market for students completing this initiative, including sources used for employment information/data. *According to the current US Bureaus of Labor Statistics report, employment of information security analysts, web developers, and computer network architects is projected to grow 22 percent from 2010 to 2020, faster than the average for all occupations. Job prospects for all three occupations should be favorable.*
   http://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts-web-developers-and-computer-network-architects.htm
   Information Security is on the rise everywhere as the importance of secure electronic information continues to grow.

7. Briefly describe indicators of potential student interest/demand for the new initiative, including sources used for student market information/data. *The last student ISI survey included in last fall's ISI APR report indicated a strong interest in technology courses such as penetration testing and secure software. Informal feedback to our faculty through advising sessions has also indicated a strong interest by our students.* *"Since most organizations now use computers for most*

of their business functions, the career outlook for an information security analyst is rising faster than most jobs. The BLS projects expected growth for this field at 20 percent from 2008 to 2018."http://www.schools.com/news/information-security-analyst-salary-career-outlook.html

8. To what extent will this initiative draw new students to FSU or KCAD? To what extent will it draw students from existing programs? *The ISI faculty worked with faculty from the CIT and CIS program when developing the proposal. The courses are designed to offer students from these programs an opportunity to take the two new courses without the burden of numerous prerequisite courses. In addition, the CIS faculty has stated that they would like to offer this concentration as a certificate to their students in the future.*

9. Approximately how many students are expected to enroll?

    _20   in the first year?   _40   after three years?

10. At which FSU campuses/regional centers or other sites will the initiative be offered? *Big Rapids and Grand Rapids initially.*

11. Will Internet or other distance learning technology be used for course/program delivery? Describe. *Blackboard. Virtually all of our classes for this degree are either web delivered or web enhanced classes.*

Complete questions 12, 13, 14 in consultation with department administrator and/or dean.

12. Provide a rough estimate of the resources needed to implement the initiative:

	Start-up	After Three Years
Supply and expense	$NA	$NA
Equipment	$4000	$2000 (new mobile devices)
Full-time faculty	$NA	$NA
Overload/adjunct faculty	1 course per year	1 course per year
Other	NA	NA

We are estimating the need for one adjunct faculty member to teach one of the concentration courses per year. In addition, we are anticipating that our new faculty member will help to mitigate the additional course load across the current faculty team

Estimate of Library Resources	X Adequate	Some new resources needed	Significant number of resources needed
		Potential Funding Sources:	Potential Funding Sources:

13. Project the resources that could come from reallocation within the department or college and the new resources that would be required. *The two new courses to be covered by current faculty and an adjunct as needed as specified in number 12 above.*

14. Are there new space needs? If so, how much? How would the space be used? Has existing space been identified? If so, where? Is renovation/remodeling necessary? *Existing BUS classrooms such as 121, 116, and 118 are sufficient.*

15. Is there professional accreditation for the program? Is it required or voluntary? Will accreditation be sought, and when? What will be the one-time and ongoing costs of accreditation? *Aligns with current NSA Center of Academic Excellence accreditation.*

16. Has there been preliminary discussion with other departments/colleges that will be involved in course/program delivery? If yes, what was the feedback? *Yes, coordination with CIT and CIS faculty. Two department meeting discussions and one CIS / CIT faculty meeting. Proposal was unanimously approved by the department.*

Department Administrator's signature: _James R. Woula_ Date _2/14/13_
If this is an interdepartmental initiative, include additional Department Administrator signatures

Comments:

EIO agrees with Dean Nicol assessment of low enrolled courses and thinning of student population amongst too many concentrations.

Dean's signature: _____ Date _2/14/13_
_2/14/13_
- For cross-college initiatives, include additional signature(s) of Dean(s)
- For existing programs customized for off-campus delivery to a cohort group, include College and EIO Deans' signatures

Comments:

As we add concentrations, we need to be sensitive to the potential confusion from annual assessment exercises in order to avoid diffusion and low-enrolled courses.

Provost's Signature: _____ Date _____

☐ Approved Approval indicates permission to develop the full proposal. It does not assure final approval.

Comments and/or suggestions:

☐ Not approved

Explanation:

c. Initiator(s)
   Department Administrator(s)
   Deans' Council University Curriculum Council

Academic Senate
VPEIO
Provost
FSU Intranet

To: ismjerry@yahoo.com, Gerald J Emerick/FSU,
Cc:
Bcc:
Subject: Fw: CCC recommendations for the Penetration... proposal
From: Darlene J Waring/FSU - Wednesday 02/13/2013 10:50 AM

----- Forwarded by Darlene J Waring/FSU on 02/13/2013 10:50 AM -----

From: Stephen Jakubowski/FSU
To: Darlene J Waring/FSU,
Date: 02/13/2013 10:41 AM
Subject: CCC recommendations for the Penetration... proposal

Darlene,

Below is a summary of the CCC recommendations regarding the recent ISIN proposal discussed at the 2/13/13 meeting.
If you have any questions, let me know. Please forward these to Gerald Emerick.

Steve

VOTE
COUNT

AFIS - Penetration Testing and Software Security Concentration

Support   0

Support with concerns   5

Not support   0

Concerns

1. The proposal uses an old version of the Form A. The most recent version should be used.

2. Form A (pg.1). The date of the proposal implementation is stated as Spring 13. This date should coincide with the date reported on Form F. According to Form F, the effective date for both ISIN 335 and ISIN 430 is stated as 201308 (Form F I, 2), with the terms the course will be offered as Spring and Fall (Form F, II p) respectively.

3. Form F (II r) indicates that the prerequisite for ISIN 335 are:

   HSCJ 202 and ISIN 305 OR HSCJ 202 and ISYS 288

   It is recommended that the word OR above be underlined or put in bold to emphasize the two distinct combinations of courses.

4. Form F (II r) indicates that the prerequisite for ISIN 335 is ISYS 288.

   This course is not a part of the new "Penetration..." concentration.

   As stated above, the prerequisites for ISIN 335 are: HSCJ 202 and ISIN 305 OR HSCJ 202 and ISYS 288. ISIN 305 is listed in the Penetration concentration but ISYS 288 is not. This is inconsistent.

5. The check list (both current & proposed) do not include a "Suggested Semester Course Completion" form.

6. The prerequisites for the courses listed under Concentrations in the checklist (both current & proposed) do not list prerequisites.

7. Form A (1) states that there are no changes to the business core.

   The checklists (both current & proposed) do not follow the business core.

   The CCC assumes that the proposed program is exempt from the business core requirements.

Re: CCC recommendations for the Penetration... proposal
Jerry Emerick
to:
DarleneWaring@ferris.edu, StephenJakubowski@ferris.edu
02/13/2013 03:36 PM
Hide Details
From: Jerry Emerick <ismjerry@yahoo.com>
To: "DarleneWaring@ferris.edu" <DarleneWaring@ferris.edu>, "StephenJakubowski@ferris.edu"
<StephenJakubowski@ferris.edu>,
Please respond to Jerry Emerick <ismjerry@yahoo.com>

4 Attachments

ISIN 335 FORM F.pdf Form PCAF 09062012webversion.pdf Suggested Semester Course Completion.pdf FormA webversion.pdf

Good Afternoon,

Thank you both for your assistance with this proposal.   I have updated the Form A, PACF and Form F for ISIN 335.   Attached documents are PACF, Form A, Form F and the Suggest Semester Completion form. Darlene will be providing an updated proposed checksheet that includes the concentration prerequisites.

I believe I have addressed all 7 concerns with the exception of item 4 which I intentionally did not address. The checksheet is for the ISI program and ISYS 288 is in the CIS, not ISI program. We are not requiring ISI students to take ISYS 288. ISYS 288 is a prerequisite option for ISIN 330 to allow a path for CIS students. I believe adding ISYS 288 to the ISI checksheet would add confusion not clarity. Do you agree?

Stephen - Is the proposal approved? I see that it was supported with concerns and I believe I have addressed the concerns with these latest revisions. It is ironic that the Date of Term Implementation is no longer listed on the new Form A :-)

Thank you.

Best Regards,

Jerry Emerick, MS, PMP, CISSP
Information Security & Intelligence
National Security Agency Center of Excellence
Ferris State University
http://isi.ferris.edu
616-951-4676

From: "DarleneWaring@ferris.edu" <DarleneWaring@ferris.edu>
To: ismjerry@yahoo.com; GeraldEmerick@ferris.edu
Sent: Wednesday, February 13, 2013 10:50 AM
Subject: Fw: CCC recommendations for the Penetration... proposal

----- Forwarded by Darlene J Waring/FSU on 02/13/2013 10:50 AM -----

From: Stephen Jakubowski/FSU
To: Darlene J Waring/FSU,
Date: 02/13/2013 10:41 AM
Subject: CCC recommendations for the Penetration... proposal

Darlene,

Below is a summary of the CCC recommendations regarding the recent ISIN
proposal discussed at the 2/13/13 meeting.

FYI -

Sandra L. "Sandy" Alspach, Ph.D.
Professor / Sports Communication champion
Department of Humanities: Communication
127 Johnson Hall
1009 Campus Drive
Ferris State University
Big Rapids, MI 49307
(o) 231-591-2779
(f) 231-591-2188

----- Forwarded by Sandra L Alspach/FSU on 03/22/2013 12:09 PM -----

From:	Jerry Emerick <ismjerry@yahoo.com>
To:	"Sandra_Alspach@ferris.edu" <Sandra_Alspach@ferris.edu>,
Date:	03/22/2013 08:36 AM
Subject:	Re: New concentration for ISI

Thank you. I will plan to attend.

Best Regards,

Jerry Emerick, MS, PMP, CISSP
Information Security & Intelligence
National Security Agency Center of Excellence
Ferris State University
http://isi.ferris.edu
616-951-4676

From: "Sandra_Alspach@ferris.edu" <Sandra_Alspach@ferris.edu>
To: GeraldEmerick@ferris.edu; JimWoolen@ferris.edu
Cc: TraceyBoncher@ferris.edu; TerrenceDoyle@ferris.edu; OlukemiFadayomi@ferris.edu;
AnitaFagerman@ferris.edu; SteveKarnes@ferris.edu; KristenMotz@ferris.edu;
ChrystalRoach@ferris.edu; DouglasZentz@ferris.edu; Paula_Hadley-Kennedy@ferris.edu;
PaulBlake@ferris.edu; EliseGramza@ferris.edu; MaureenMilzarski@ferris.edu; Mitzi_Day@ferris.edu
Sent: Thursday, March 21, 2013 10:13 PM
Subject: New concentration for ISI

Gerald,

Your proposal to add a concentration in Penetration Testing and Secure Software to the ISI Bachelor's
program was approved by the UCC on Wednesday.

Because this concentration will require Academic Senate approval, it will be an item in New Business at
the April 2 Senate meeting, which will begin at 10:00 AM in the Centennial Room, Rankin Center. We
invite you, or a representative, to attend the meeting to answer any questions Senators might have about
this concentration.

If you have any further questions, contact your UCC representative Anita Fagerman or the Academic
Senate office manager Paula Hadley.

PROPOSAL SUMMARY AND ROUTING FORM

Proposal Title: <u>Lean Systems Minor</u>

Initiating Individual: <u>Lisa Eshbach</u>   Initiating Department or Unit: **Management**

Contact Person's Name: <u>Lisa Eshbach</u>   e-mail: <u>eshbacl@ferris.edu</u>   phone: <u>231-591-3197</u>

☒ Group I - A – New degree, major, concentration, minor, or redirection of a current offering

☐ Group I - B – Deletion of a degree, major, concentration, or minor

☐ Group II - A – New Course, modification of a course, deletion of a course

☐ Group II - B – Minor curriculum clean-up

☐ Group III – Certificates (☐ College Credit ☐ Non-Credit)

☐ Group IV – Other Site Locations (☐ College Credit ☐ Non-Credit)

	Signature	Date	Vote/Action * Number count **
Program Representative **	Lisa Eshbach	2/19/13	✓ Support ___ Support with Concerns ___ Not Support ___ Abstain
Department/School/Faculty Representative Vote **	Lisa Eshbach	2/19/13	15 Support 0 Support with Concerns 0 Not Support 0 Abstain
Department/School Administrator		3-8-13	15 Support 0 Support with Concerns 0 Not Support
College Curriculum Committee/Faculty		2/14/12	___ Support ___ Support with Concerns ___ Not Support ___ Abstain
Dean		3/14/13	___ Support ___ Support with Concerns ___ Not Support
University Curriculum Committee **	Sandy Alspach	3/27/13	6 Support 0 Support with Concerns 0 Not Support 0 Abstain
Senate **			___ Support ___ Support with Concerns ___ Not Support ___ Abstain
Academic Affairs			___ Support ___ Hold ___ Not Support

* Support with Concerns or Not Support <u>must</u> include identification of specific concerns with appropriate rationale.

** Number count <u>must</u> be given for all members present and/or voting.

To be completed by Academic Affairs   Date/Term of Implementation: _____
_____   _____   _____
President (Date Approved)   Board of Trustees (Date Approved)   Academic Officers of MI (Date Approved)

Table of Contents

1. Proposal Summary

Why is the minor needed? (Necessity):
After reviewing the lean systems certificate, that was developed in 2012, with the operations and supply management advisory board, they recommended the addition of a lean systems minor to support the industry needs and requirements.

Effectively implementing lean systems in service and manufacturing industries is widely accepted as a cutting edge tool to improve processes. The lean model operates by addressing and minimizing inefficiencies. However, little university curriculum exists on how to create, manage, and lead lean initiatives. Fliedner and Mathieson (2007) discovered that upper level managers and executives are looking to hire college graduates that possess the comprehensive knowledge necessary to lead a lean service initiative.

Minton-Eversole (2010) echo Fliedner and Mathieson's (2007) statements. Business leaders realize that creating continuous improvement within their organizations will play a significant role in the face of today's economic downturn. Continuous improvement will provide a sustainable approach to managing an organization's operations. As such, leaders are actively seeking well-qualified, trained professionals who are competent in developing and leading lean initiatives in the service industry. Job prospect figures support these statements. The job search website *Indeed.com* has 25,000 specific listings for lean practitioners and/or candidates that possess lean knowledge. Of these listings, 1,165 positions are currently available in Michigan.

What is the proposal about? (Description):
This proposal will create a minor that will establish Ferris State University as the regional leader in lean education. Most companies have difficulty applying lean in service environments because they are trying to use "lean tools." Ferris graduates, in possession of this minor, will be able to recognize the mistake of this approach. Students of this curriculum will instead be able to correctly apply the timeless lean principles to any environment where people are performing work.

Those who enroll and complete the coursework of the proposed lean minor will understand exactly how lean principles can be applied in various environments. These include business, healthcare, technology and manufacturing. The courses will demonstrate how lean principles can be converted into hands-on techniques that are effective and easily understood. Students will learn how to avoid common problems with applying lean concepts. They will also be taught how to utilize unique techniques that are meaningful to the organization. Most importantly, students will become skilled at adapting their approach to specific types of work. This flexibility can increase productivity, improve working conditions, and streamline processes. To achieve long term success, graduates of this minor will be well versed in how to stabilize these work practices through reducing variability.

The minor is comprised of the following four courses: MGMT 492 Lean Service Enterprise Leadership OR MFGE 354 Lean Manufacturing, MGMT 402 Six Sigma Process Management, MGMT 412 Lean Culture & Skills Development, MGMT 422 Lean Accounting and the option of MGMT 305 – Supervision and Leadership, MGMT 370 Quality -Operations Management, MGMT 491 Management Internship, MKTG 472 Supply Chain Management, or STQM 351 Quality Control for Management. MGMT 492, MFGE, 354, MGMT 305, MGMT 370, MGMT 402, MGMT 412, MGMT 491, MKTG 472, and STQM 351 are existing courses. MGMT 422 is a new course.

How will the courses address the need:

3

MGMT 492 or MFGE 354

The existing MGMT 492 course is necessary to address the request of the typical business leader for additional lean talent. The course will also address the current U.S. business environment and its operational process issues. According to CIA World Factbook (2010) and Stevenson (2009), service industries represent 76 percent of the national GDP whereas; only 24 percent is represented by manufacturing. Carter (2010) stated that within the service industry, 75 to 90 percent of the steps used in delivering a service add no value, are considered wasteful processes, or involve something the customer is not willing to pay for. These wasteful steps can cause delays that lead to multiple levels of inefficiencies. The results are often lower productivity and stakeholder dissatisfaction. Therefore, a course on how to improve internal service operations is essential in the minor's curriculum. In lieu of MGMT 492, students have the option to take the MFGE 354 course if they are interested in pursuing a manufacturing career path or if they are currently a working professional in the manufacturing field looking to pursue the certificate to increase their skill sets.

MGMT 402

It is logical to include the existing MGMT 402 Six Sigma Process Management course in the lean systems minor curriculum. Both Lean and Six Sigma involve methods of improving operational excellence. Lean does this by improving flow through value streams, primarily focusing on the elimination of various forms of *muda* (waste.) Six Sigma does this by identifying what customers and stakeholders want and delivering it with minimal waste, variation and errors.

The course includes a multi-faceted approach to improve organizational processes that meet or exceed customer needs/expectations. Students will learn how to apply the Six Sigma, DMAIC (Define, Measure, Analyze, Improve and Control) methodology. Specifically, it will concentrate on the *processes* for creating and delivering products and services that meet or exceed customer expectations. The course will also integrate the Design for Six Sigma discipline. Additionally, statistical analysis tools/metrics will be used as techniques to reduce process variability, increase process control and sustainability to increase the organization's process quality. The course is designed to assist students with preparation for the Six Sigma Green Belt Certification.

MGMT 412

The existing MGMT 412 Lean Culture and Skills Development course focuses on the importance of clear communication of organizational priorities and the assignments required for fulfillment of those priorities. This is a key component in the workplace environment. The most universally misinterpreted concept of lean is that it relates to how people *perform* work. Finding ways to eliminate bureaucracy and implement appropriate processes is a vital part of this course. The course will concentrate on the leadership, management and employee behaviors as well as capabilities required to implement a lean culture and sustain optimal organizational performance.

The Skills Development portion of the course is comprised of defining the relationship between coach/mentor and employee while improving value-stream performance. The Training Within Industry method (how to find competent employees for specific positions, identifying employee's development needs, creating appropriate organization training plans, and breaking complicated jobs into teachable skills) will be used as the curriculum delivery approach.

A "Train-the-trainer" program is an important factor in sustaining lean. As such, the course will provide guidelines on how to develop a coaching/mentoring/trainer program within the organization. Additional course content includes how the continuous learning/improvement (improving daily work processes) culture enhances organizational growth, innovation, profitability and process excellence.

MGMT 422

The US manufacturing and service cultures is adapting to competitive pressures by exploring change, including lean thinking. However, many organizations struggle to realize sustained financial improvements when transitioning to a lean system. Outdated accounting systems easily overlook improvements they were never designed to identify. These systems represent an important component of lean implementation. Making significant changes to an organization's accounting, control, & measurement methods is imperative to actualizing a company's financial development.

Companies exploring lean thinking need to confront the problems caused by legacy accounting systems. Failure to do so typically results in two situations. In the first, an organization regresses to the traditional variance analysis and standard cost cutting i.e. labor, equipment, transportation, etc. Incremental improvements are ignored in favor of bigger, "splashy" adjustments that immediately impact the bottom line. Usually these financial measurements win out and the company's lean transition proves to be only a dalliance.

The second situation occurs when an organization develops a "homegrown" performance measurement system for operational control. On the accounting side, this system is designed to use traditional cost accounting methods. The results are virtually useless. It has proven impossible to calculate any sort of change without recognizing the elements you need to calculate.

Lean expert Brian Maskell emphasizes how this situation creates the worst of both worlds. "Instead of one control system, the company now has two. This situation creates more waste and an environment for conflict, confusion, and misdirection. A truly lean culture requires a measurement system that motivates investment in people, provides relevant & actionable information, and empowers continuous improvement at every level of the organization" (2001, para 5).

The newly created course, MGMT 422, Lean Accounting course concentrates on how to solve these problems. Students will learn how to create a consistent performance measurement system that is accurate, timely, & contains recognizable information. Every aspect will be examined how it can be used to motivate and sustain an organization's lean financial transformation. Specific tools will be developed, demonstrated, & utilized to understand cost problems, time problems, quality problems, waste problems, inventory problems, customer service and satisfaction problems.

The course will then focus on how to integrate the properly-designed lean accounting system with employee decision making. The process of how to use information to make the right decisions at the right time while supporting customer requirements and value stream specifications will be clearly explained. Students will emerge from this class with the correct decision-making skills needed in today's market. They will be able to recognize how proper implementation of lean's foundational elements will result in enhanced organizational profitability. Perhaps more importantly, they will capable of demonstrating that to others.

MGMT 305, MGMT 370, MGMT 491, MKTG 472, STQM 351
The students will have a choice of four existing courses to round out the six course offering – MGMT 305 – Supervision and Leadership, MGMT 370 – Quality- Operations Management, MGMT 491 – Management Internship, MKTG 472 Supply Chain Management or STQM 351 Quality Control for Management. These courses support extending lean and leadership concepts internally and /or to an organization's operational partners thereby energizing the supply chain and appropriately applying the lean techniques in a specific situation. This will specifically draw focus to the internal & external value added activities that exist with suppliers and in industry. Real-world examples and case studies will demonstrate how to effectively use this powerful strategy to realize significant, long-term improvements and bottom-line savings.

How will the courses be designed? The minor's courses are designed to include innovative teaching techniques including hands-on, real-world experience for students. Highly qualified instructors with academic & industrial experience will be teaching the courses. A combination of lecture, discussions, exams, case studies, projects, video clips, experiential exercises, self-assessment techniques, and peer feedback will be used in the courses. Graduates will be able to differentiate themselves in a market of skilled professionals.

Where will the course be delivered? The course format and content presents an opportunity for the courses to be taught in a face-to–face or web-enhanced or fully online format.

Who is the minor designed for? The lean systems minor is designed for a variety of student audiences. It is interdisciplinary. Therefore, it is open to students from the traditional engineering and manufacturing areas as well as the non-manufacturing and non-engineering disciplines such as business, health care, construction, etc.. Working professionals can also enroll in the courses. The certificate would be beneficial for all for the

following disciplines: business, management, marketing, team leadership, line workers, faculty, researchers, health care professionals, human resources, accounting, finance, and career professionals. Students enrolled in the Lean Systems Minor will be exposed to information instrumental in learning new tools and skill sets required for success. They will be able to increase their Lean knowledge, build confidence & credibility, and differentiate themselves in a market of skilled professionals. The specific course outcomes can be found in Form E.

When will the minor be offered? The College of Business has existing faculty to teach the courses included in the certificate. The faculty are prepared to deliver the courses in Fall 2013. See suggested course offering plan on page fourteen.

Alignment with University and College of Business: The Lean Systems minor offering is in alignment with Ferris State University's goal of "cultivating a stimulating student centered learning environment that applies theory to practice in the classroom." Every Ferris student should understand what comprises lean systems. Teaching those valuable skills will increase their overall learning standard and professional marketability.

The Management Department in the College of Business' goal is to ensure that classroom teaching is aimed at "development of competency through active learning". Realization of this goal will result in students prepared for the real world environment. Teaching new subjects and utilizing new teaching tools ensures Ferris students are exposed to the right type of thought process. This ground breaking approach to education will set Ferris graduates apart in the very competitive job market. It is the standard that future employers of FSU's business students are demanding.

Changes in Support Resources Required for Revision
> None

Changes in Facilities
> None

Changes in Library Resources
> None

Changes in Equipment and Computers
> None

Budget Implication of Curriculum Revision
> None – only one course is being developed.

2. Summary of Curricular Action (check all that apply to this proposal)

☐ Degree ☐ Major ☒ Minor ☐ Concentration ☐ Certificate ☒ Course

☒ New ☐ Modification ☐ Deletion

Name of Degree, Major, etc. : ____Lean Systems Minor_____

3. Summary of All Course Action Required Contact Senate Secretary or UCC Chair if additional spaces are required.

a. **Newly Created Courses to be Added to FSU Catalog:**

Prefix	Number	Title
MGMT	422	Lean Accounting

d. Addition of existing FSU courses to program

Prefix	Number	Title
MGMT	305	Supervision and Leadership
MGMT	370	Quality – Operations Management
MGMT	402	Six Sigma Process Management
MGMT	412	Lean Culture & Skills Development
MGMT	491	Management Internship
MGMT	492	Lean Service Enterprise Leadership
MFGE	354	Lean Manufacturing
MKTG	472	Supply Chain Management
STQM	351	Quality Control for Management

4. Summary of All Consultations

Form Sent (B or C)	Date Sent	Responding Dept.	Date Received & by Whom

Form Sent (B or C)	Date Sent	Responding Dept.	Date Received & by Whom
Form B	02/19/2013	Manufacturing	
Form B	02/19/2013	Marketing	
Form C	02/19/2013	FLITE	

5. Will External Accreditation be sought? (For new programs or certificates only)

☒ Yes   ☐ No

If yes, name the organization involved with accreditation for this program.
ACBSP

6. Program Checksheets affected by this proposal (check all that apply to this proposal)

☒ Add Course ☐ Delete Course ☐ Modify Course ☐ Change Prerequisite ☐ Move from required to elective
☐ Move from elective to required ☐ Change Outcomes and Assessment Plan ☐ Change credit hours

List all Checksheets affected by this proposal:

College	Department	Program
COB	MGMT	Lean Systems Minor – Form D - new minor.

Catalog Description:

The Lean Systems minor prepares individuals for technical and non-technical careers in lean systems and six sigma management. It specifically integrates the Lean concepts (process efficiency), Six Sigma (process quality), lean accounting (value stream performance measurement) and leadership techniques (employee centric) to assist the organization in achieving and sustaining optimal employee and organization/operational performance.

Revised Program Admission Criteria:

None.

OUTCOMES STATEMENT AND ASSESSMENT PLAN FOR THE LEAN SYSTEMS MINOR

The certificate will include the following areas for outcomes assessment at the university level.

Learning Outcome #	Certificate Course Outcome	Assessment
1	**MGMT 402:** Explain the metrics and tools related to business process variation and apply Six Sigma to standardize processes across different disciplines and practices.	In-Class Assignments, Class Project, Homework, and Exams
2	**MGMT 412:** Develop and integrate an employee centric lean culture resulting in consistent organizational growth, innovation, profitability and process excellence.	Individual Exercises/Assignments, Team Based projects, Peer evaluation
3	**MGMT 422:** Design a lean-focused set of simplified accounting, control, and measurement tools to develop accurate, timely, & understandable financially driven strategies to motivate and sustain a lean financial transformation throughout the organization resulting in increased customer value, organizational growth, and profitability.	Individual Exercises/Assignments, Team Based Projects, Exams, Mid-term exam, Peer evaluation
4	**MGMT 492:** Evaluate, design, improve, and lead a lean service business process initiative using Systems Planning and Thinking (seeing the whole business as a value stream), Human relations skills (leadership, strategy development and deployment, change management, and team problem solving) and Lean Principles (kaizen, PDCA, 5S, pull, leveling process stability, standardized work, root-cause problem resolution and A3 Reporting). **OR** **MFGE 354:** Familiarize the manufacturing student with the concepts and practices of lean manufacturing as currently applied in industry, and develop in them rudimentary skill in applying those principles, with the overall goal of enabling them to reduce waste in the workplace. Topics include push vs. pull systems, kanban, continuous flow production, takt time, SMED, TPM, TQM, TOC, 5S, poka yoke, and kaizen.	Individual Exercises/Assignments, Team Based projects, exams, Peer evaluation,
5	**MGMT 305:** Assess and create a plan to develop individual leadership skills and behaviors to improve personal and professional performance. **OR** **MGMT 370:** Understand global operations issues	Assignments, Exams, Case Analysis, Reports

	and strategies. This includes global sourcing, logistics, facility location, and environmental/sustainability. Students will be able to define the concerns and conflicts with sourcing from low cost countries. Articulate the reason why companies support international business such as new markets or outsourcing activities. **OR** **MGMT 491:** Apply academic education in a work experience thus acquiring personal development with cooperating employer organizations in business, industry, government, and education. **OR** **MKTG 472:** Understand the strategic role played by the purchasing function in developing and improving the supply chain. Design a supply chain performance measurement system. **OR** **STQM 351:** Identify the requisites to process capability assessment such as process stability and process centering. Define and apply basic measures of process capability. Define and apply process benchmarking.	

COB Curriculum Committee Comments:

Lean Systems Minor – a vote of not support from Steve Jakuboswki because the proposal creates a new course MGMT 422 Lean Accounting. A Form B Curriculum Consultation form was not sent to the AFIS Department such that this course could be reviewed by the accounting faculty.

Response to the Accounting Department's Form B Concern:

The concern arose, during the COB Curriculum Meeting on February 28, 2013, about not consulting the Accounting department. The term "Accounting" is used in the MGMT 422 Lean Accounting course.

The Lean Accounting course conversation started about one year ago with a current tenured Accounting faculty member. Due to existing workload constraints, the faculty member offered the option of the course being taught by an adjunct faculty member. This response was not one that the Management faculty felt comfortable pursuing for two reasons. One, the Lean Accounting class is in

the Lean Systems concentration. As such, we prefer a tenure/ tenure-track full- time College of Business faculty teach the course. Second, the individual had only manufacturing experience. The course needs to be taught by and individual who is able to apply the lean accounting principles to a manufacturing and service environments. The remaining full-time Accounting faculty profiles were reviewed. However, evidence of Lean Accounting expertise was not discovered.

Consultation with our advisory board confirmed our opinion that the course should only be taught by individuals who are qualified - e.g., individuals who possessed lean work experience and course knowledge for both the manufacturing and service environments. One advisory member stated that teaching the course without those qualifications would be "dangerous" from an academic standpoint.

It was determined that two management faculty were qualified to teach Lean Accounting. Dr. Eshbach and Dr. Marion both possess extensive lean work experience and are capable of delivering the Lean Accounting course. The MGMT 422 – Lean accounting course was designed with the, above mentioned, management faculty's professional knowledge and experience, research and advisory board consultation.

The Lean Accounting course is not designed as the traditional accounting course as stated on page 5 of the Lean Systems Minor proposal. As an organization transitions from mass to lean operations, their financial system also needs to change. Otherwise, organizations struggle to realize sustained financial improvements due to incongruities between the traditional accounting systems and new measurement. Lean improvements can easily be overlooked.

For example, the traditional cost accounting system will maximize labor and overhead efficiencies through 100% utilization rates of labor and equipment. This type of culture dictates that the equipment be loaded to its capacity even though the customer's order does not reflect that quantity. As a result, the organization experiences increased inventory levels, obsolete products, long lead times, and tied up cash flow.

A lean system is designed to produce only what the customer orders. The outcomes of a lean measurement system are low inventory levels, flexibility, and on-time delivery to the customer and higher profits. This behavior supports lean thinking and practice within the organization. Making significant changes to an organization's accounting, control, & measurement methods is imperative to actualizing a company's financial development in a lean systems environment.

Table A-1 further illustrates additional distinct differences between the traditional Cost Accounting and Lean Accounting focus and content.

Table A-1: Differences Between Traditional Accounting and Lean Accounting

Traditional Cost Accounting	Lean Accounting	Why Important for Lean System Implementation?
1. Focus on costs and minimizing individual product cost. Little Focus on Customer Value and Growth	Focus on Customer value, revenues, costs and profits. Maximize on value stream throughput. This assists in value stream increased sales, cost reductions and achieving unprecedented profitable growth.	Measurements motivate elimination of waste, free up value stream capacity, continuously increase productivity, and increase revenue by serving customers better at no additional cost.
2. Narrow Department view.	Value Stream and Customer Focus.	Value stream measurements provide a clear view of how and how much value is created for the customer.
3. Seeks to maximize labor efficiency and equipment utilization.	Linked directly to organization's strategic goals. This leads to self-motivated achievement.	Measurements drive strategic goals and motivate lean continuous improvements.
4. Financial or Operational Focus or Complex Reporting System.	Integrated Measurement System. The Box Score Method measures Operational (Units per person, on-time delivery, quality and average cost), Capacity(productive, non-productive, and available), Financial (Revenue, material cost, fixed costs, and Return on Sales) and flow information by Value Stream. Measurements are available frequently.	Timely, visual and meaningful information enables people to make informed decisions, control their own processes, eliminate waste, increase the flow, and grow revenues and profits.
5. Motivates large batches, high inventories, and long lead times. Designed for mass production/service.	Motivates single-piece flow, low inventory and on-time delivery. Designed for flow.	Correct lean measurements drive lean thinking, practices and organization's culture.
6. Reports generally lag behind actual organizational activities. Reports are focused on history, not forward looking change. The monthly reporting process is too late and too confusing for employees to make changes. Reports are produced for accounting and designed for senior managers.	Provides simple, understandable, real-time actionable information. The real-time information and reporting systems assists employees working in the process with reducing costs daily.	Simple measurements enable employees to control and improve their own work. Well-designed, relevant reports that employees understand are used for continuous improvement.
7. Focused on Standard Costs and Variances. Few understand the traditional standard costs and variance reports	Seeks to maximize flow through the value stream. Employees are empowered to measure the work areas' operational, capacity and financial information. This provides clear, understandable and timely information so that employees can make better decisions and more lean improvements. The outcome is increased revenue and higher profits.	Measurements focus on faster flow resulting in short lead times, better quality, on-time delivery, flexibility lower cost and higher profits
8. Treats Inventory as an asset in financial statement and allows a company to match its cost against revenue - as cost of good sold - when it sells the product. Produce additional inventory to offset overhead absorption discrepancies.	The goal is to provide goods (inventory) or services only to meet customer demand. Overproduction of inventory is not used to offset overhead absorption costs or adjust financial documents	Supports one of the lean foundation principles - eliminate "muda".
9. Shows negative numbers when good lean improvement occurs	Shows true financial benefits of lean change. This leads to better and sustained improvements.	Motivates employee lean behavior and creates a lean culture within the organization.
10. Requires Millions of Wasteful Transactions to Support Operations.	Eliminates huge amounts of process waste and millions of transactions using the lean methodology and tools.	Supports one of the lean foundation principles - eliminate "muda".
11. Price = Cost (Material + Labor +Overhead) + % Margin	Cost = Value - Profit	Changes are made to decrease costs and increase organization profits.

As a side note, there are approximately 50 courses in the Ferris Course Catalog that contain the word "Management". Of which, only 25 are College of Business Management courses. Based on our research, the Management department was not consulted in the process of creating those courses.

The management department will send a Form B as a collegial gesture to the Accounting department.

CURRICULUM CONSULTATION FORM

To be completed by each department affected by the proposed change, addition, or deletion. Potential duplication of coursework is reason for consultation.

1. This completed form must be forwarded with the proposal to the administrator of the department to be consulted.

2. The department must respond within 10 business days of receipt of this form to insure inclusion in the final proposal. The completed original is returned to the Academic Senate office to be inserted into the proposal and a copy is returned to the initiator.

   The department must acknowledge receipt of this form and the proposal in writing to the initiator.

   Failure to respond by 10 business days of receipt of this form is interpreted as support for the proposal.

3. The Proposing Department must address any concerns raised by the consulted department. This response must be in writing and will be included in the proposal following the original consultation form.

RE: Proposal Title Lean Systems Minor

Initiator(s): Lisa Eshbach & David Marion

Proposal Contact: Lisa Eshbach ___ **Date Sent:** 2/19/13

Department: Management _____**Campus Address: Bus 212**
(Please type)

Responding Department: Manufacturing

Administrator: Jim Rumpf _Date Received: _____Date Returned: _____

Based upon department faculty review on _____(date), we

☐ Support the above proposal.
☐ Support the above proposal with the modifications and concerns listed below.
☐ Do not support the proposal for the reasons listed below.

Comment regarding the impact this proposal has on current curriculum including prerequisites, scheduling, room assignments, and/or faculty load for your department. Use additional pages, if necessary.

CURRICULUM CONSULTATION FORM

To be completed by each department affected by the proposed change, addition, or deletion. Potential duplication of coursework is reason for consultation.

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   The department must acknowledge receipt of this form and the proposal in writing to the initiator.

   Failure to respond by 10 business days of receipt of this form is interpreted as support for the proposal.

3. The Proposing Department must address any concerns raised by the consulted department. This response must be in writing and will be included in the proposal following the original consultation form.

RE: Proposal Title <u>Lean Systems Minor</u>

Initiator(s): <u>Lisa Eshbach & David Marion</u>

Proposal Contact: <u>Lisa Eshbach</u>   Date Sent: <u>2/19/13</u>

Department: <u>Management</u>   Campus Address: <u>Bus 212</u>
(Please type)

Responding Department: <u>AFIS</u>

Administrator: <u>James Woolen</u>   Date Received: <u>03/11/2013</u> Date Returned: <u>03/19/2013</u>

Based upon department faculty review on <u>03/19/2013</u>(date), we

- ☐ Support the above proposal.
- ☒ Support the above proposal with the modifications and concerns listed below.
- ☐ Do not support the proposal for the reasons listed below.

Comment regarding the impact this proposal has on current curriculum including prerequisites, scheduling, room assignments, and/or faculty load for your department. Use additional pages, if necessary.

All AFIS faculty support the proposal with these following concerns for MGMT 422:

- If this is an accounting class, then it should be taught by the Accountancy faculty and use an ACCT prefix. The accounting literature discusses lean accounting as an alternative to traditional cost accounting complementing lean practices.

OR

- If this truly not an accounting course as named, then the name of the course should be changed to something that does not have an accounting reference.

Response to the Accounting Department's Form B Concern

This response will address the following concerns that were brought up by the accounting department.

AFIS's first concern was:

"If this is an accounting class, then it should be taught by the Accountancy faculty and use an ACCT prefix. The accounting literature discusses lean accounting as an alternative to traditional cost accounting complementing lean practices."

Management Department Response: The Lean Accounting course conversation started about one year ago with a current tenured Accounting faculty member. Due to existing workload constraints, the faculty member offered the option of the course being taught by an adjunct faculty member. This response was not one that the Management faculty felt comfortable pursuing for two reasons. One, the Lean Accounting class is in the Lean Systems concentration. As such, we prefer a tenure/ tenure-track full- time College of Business faculty teach the course. Second, the individual had only manufacturing experience. The course needs to be taught by and individual who is able to apply the lean accounting principles to a manufacturing and service environments. The remaining full-time Accounting faculty profiles were reviewed. However, evidence of Lean Accounting expertise was not discovered.

Consultation with our advisory board confirmed our opinion that the course should only be taught by individuals who are qualified - e.g., individuals who possessed lean work experience and course knowledge for both the manufacturing and service environments. One advisory member stated that having an instructor teach the course without those qualifications would be "dangerous" from an academic standpoint.

Extensive preparation is required to teach this course. There are multiple professional development courses that existing accounting faculty could take to prepare to teach this course. This would be a requirement from the management department's perspective to ensure that the accounting faculty had a comprehensive knowledge of lean principles and how lean accounting supports a lean systems environment.

There are two management faculty who are qualified to teach Lean Accounting. Dr. Eshbach and Dr. Marion both possess extensive lean work experience and are capable of delivering the Lean Accounting course. The MGMT 422 – Lean accounting course was designed with the, above mentioned, management faculty's professional knowledge and experience, research and advisory board consultation. This will ensure that the course will be taught by qualified faculty and offered as necessary to fulfill the student demand.

As a side note, there are approximately 50 courses in the Ferris Course Catalog that contain the word "Management". Of which, only 25 are College of Business Management courses. Based on our research, the Management department was not consulted in the process of creating those courses. We also do not believe we need to teach the course because it has the word "Management" in the course title. Examples include: MKTG 472 (Supply Chain Management), RETG 438 (Retail Management), STQM 341 (Management Science), CRIM 673 (Human Resource Management), MRIS 461 (Health Information Management Review), AMGT 401 (Management of Fixed Operations), CONM 424 (Construction Safety and Management), and PHAR 425 (Pharmacy Practice Management),

AFIS's second concern was:

"If this truly is not an accounting course as named, then the name of the course should be changed to something that does not have an accounting reference. "

Management Department Response: Dr. Eshbach had multiple conversations with an advisory committee member about the course name. This advisory committee member has 20 years of work experience with implementing Lean Systems globally at numerous locations. He stated that changing the name from Lean Accounting to a title of "Lean Measures" would not convey the message that a lean financial measurement system is used throughout the organization. In other words, a course title of Lean Measurements would only state to industry that we are teaching the students how to financially measure improvements in a particular work area(s). However, a course title of Lean Accounting signifies that we are teaching the students how to financially measure improvements throughout the entire organization. This is a key component for a Lean Initiative since Lean Systems are normally implemented throughout the entire organization.

The Lean Accounting course is designed to create a consistent performance measurement system that is accurate, timely, & contains recognizable information for all aspects of the organization as stated on page 5 of the Lean Systems Minor proposal. As an organization transitions from mass to lean operations, their financial system also needs to change.

Organizations, such as Boeing, Boston Scientific, Lockheed Martin, Nestle, Novartis Pharmaceutical, Parker Hannifin, and Thermo Fisher and many other organizations found it necessary to use Lean Accounting to accurately measure their financial performance as they transitioned from a mass to lean operational environment. Otherwise they would have struggled to realize sustained financial improvements due to incongruities between the traditional accounting systems and new measurement system. Lean improvements could easily be overlooked.

For example, the traditional cost accounting system will maximize labor and overhead efficiencies through 100% utilization rates of labor and equipment. This type of culture dictates that the equipment be loaded to its capacity even though the customer's order does not reflect that quantity. As a result, the organization experiences increased inventory levels, obsolete products, long lead times, and tied up cash flow.

A lean system is designed to produce only what the customer orders. The outcomes of a lean measurement system are low inventory levels, flexibility, and on-time delivery to the customer and higher profits. This behavior supports lean thinking and practice within the organization. Making significant changes to an organization's accounting, control, & measurement methods is imperative to actualizing a company's financial development in a lean systems environment.

Table A-1 further illustrates additional distinct differences between the traditional Cost Accounting and Lean Accounting focus and content.

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1. Focus on costs and minimizing Individual product cost. Little Focus on Customer Value and Growth	Focus on Customer value, revenues, costs and profits. Maximize on value stream throughput. This assists in value stream increased sales, cost reductions and achieving unprecedented profitable growth.	Measurements motivate elimination of waste, free up value stream capacity, continuously increase productivity, and increase revenue by serving customers better at no additional cost.
2. Narrow Department view.	Value Stream and Customer Focus.	Value stream measurements provide a clear view of how and how much value is created for the customer.
3. Seeks to maximize labor efficiency and equipment utilization.	Linked directly to organization's strategic goals. This leads to self-motivated achievement.	Measurements drive strategic goals and motivate lean continuous improvements.
4. Financial or Operational Focus or Complex Reporting System.	Integrated Measurement System. The Box Score Method measures Operational (Units per person, on-time delivery, quality and average cost), Capacity(productive, non-productive, and available), Financial (Revenue, material cost, fixed costs, and Return on Sales) and flow information by Value Stream. Measurements are available frequently.	Timely, visual and meaningful information enables people to make informed decisions, control their own processes, eliminate waste, increase the flow, and grow revenues and profits.
5. Motivates large batches, high inventories, and long lead times. Designed for mass production/service.	Motivates single-piece flow, low inventory and on-time delivery. Designed for flow.	Correct lean measurements drive lean thinking, practices and organization's culture.
6. Reports generally lag behind actual organizational activities. Reports are focused on history, not forward looking change. The monthly reporting process is too late and too confusing for employees to make changes. Reports are produced for accounting and designed for senior managers.	Provides simple, understandable, real-time actionable information. The real-time information and reporting systems assists employees working in the process with reducing costs daily.	Simple measurements enable employees to control and improve their own work. Well-designed, relevant reports that employees understand are used for continuous improvement.
7. Focused on Standard Costs and Variances. Few understand the traditional standard costs and variance reports	Seeks to maximize flow through the value stream. Employees are empowered to measure the work areas' operational, capacity and financial information. This provides clear, understandable and timely information so that employees can make better decisions and more lean improvements. The outcome is increased revenue and higher profits.	Measurements focus on faster flow resulting in short lead times, better quality, on-time delivery, flexibility lower cost and higher profits
8. Treats inventory as an asset in financial statement and allows a company to match its cost against revenue - as cost of good sold - when it sells the product. Produce additional inventory to offset overhead absorption discrepancies.	The goal is to provide goods (inventory) or services only to meet customer demand. Overproduction of inventory is not used to offset overhead absorption costs or adjust financial documents	Supports one of the lean foundation principles - eliminate "muda".
9. Shows negative numbers when good lean improvement occurs	Shows true financial benefits of lean change. This leads to better and sustained improvements.	Motivates employee lean behavior and creates a lean culture within the organization.
10. Requires Millions of Wasteful Transactions to Support Operations.	Eliminates huge amounts of process waste and millions of transactions using the lean methodology and tools.	Supports one of the lean foundation principles - eliminate "muda".
11. Price = Cost (Material + Labor +Overhead) + % Margin	Cost = Value - Profit	Changes are made to decrease costs and increase organization profits.

CURRICULUM CONSULTATION FORM

To be completed by each department affected by the proposed change, addition, or deletion. Potential duplication of coursework is reason for consultation.

1. This completed form must be forwarded with the proposal to the administrator of the department to be consulted.

2. The department must respond within 10 business days of receipt of this form to insure inclusion in the final proposal. The completed original is returned to the Academic Senate office to be inserted into the proposal and a copy is returned to the initiator.

   The department must acknowledge receipt of this form and the proposal in writing to the initiator.

   Failure to respond by 10 business days of receipt of this form is interpreted as support for the proposal.

3. The Proposing Department must address any concerns raised by the consulted department. This response must be in writing and will be included in the proposal following the original consultation form.

RE: Proposal Title Lean Systems Minor

Initiator(s): Lisa Eshbach & David Marion

Proposal Contact: Lisa Eshbach __ **Date Sent**: 2/19/13

Department: Management ___ **Campus Address: Bus 212**
(Please type)

Responding Department: Marketing

Administrator: Mike Cooper ___ Date Received: ___ Date Returned: ___

Based upon department faculty review on _____(date), we

- ☐ Support the above proposal.
- ☐ Support the above proposal with the modifications and concerns listed below.
- ☐ Do not support the proposal for the reasons listed below.

Comment regarding the impact this proposal has on current curriculum including prerequisites, scheduling, room assignments, and/or faculty load for your department. Use additional pages, if necessary.

FLITE SERVICES CONSULTATION FORM

To be completed by the liaison librarian and approved by the Dean of FLITE. All returned forms should be included in the proposal. FLITE must respond within 20 calendar days of receipt of this form to insure that the form is included in the final proposal.

FAILURE TO RESPOND IS CONSIDERED AS SUPPORT OF THE CHANGE.

RE: Proposal Title: <u>Lean Systems Minor</u>

Projected number of students per year affected by proposed change: <u>50</u>

Initiator(s):   College of Business – Management Department

Proposal Contact: Lisa Eshbach Date Sent: 02/19/2013

Department: MGMT Campus Address: IRC 212M
(Please print)

Liaison Librarian Signature: *David A Sew* _____ Date: 2/25/13

Dean of FLITE Signature: *Hannon* _____ Date Returned: 3/4/13

Based upon our review on *2/25/13* (date), FLITE concludes that:

☑ Library resources to support the proposed curriculum change are currently available.

☐ Additional Library resources are needed but can be obtained from current funds.

☐ Support, but significant additional Library funds/resources are required in the amount of
$_____.

☐ Does not support the proposal for reasons listed below.

Comment regarding the impact this proposal will have on library resources, collection development, programs, etc. Use additional pages if necessary.

Ferris State University – College of Business
MANAGEMENT DEPARTMENT
LEAN SYSTEMS MINOR – 18 Credits

Name: _____   ID#: _____

REQUIRED		COURSE TITLE – PREREQUISITES SHOWN IN BRACKETS ( )	S.H.	GRADE
		Four Required Classes (12 credits)		
MGMT	402	Six Sigma Process Management (MGMT 492 or MFGE 354 and Junior standing)	3	
MGMT	412	Lean Culture and Skills Development (MGMT 492 or MFGE 354 and Junior standing)	3	
MGMT	422	Lean Accounting (MGMT 492 or MFGE 354 and Junior standing)	3	
MGMT	492	Lean Service Enterprise Leadership (Junior Status) **OR**	3	
MFGE	354	Lean Manufacturing (Junior status)		
		Select Two Classes From the List Below (6 credits)		
MGMT	305	Supervision and Leadership	3	
MGMT	370	Quality-Operations Management (Sophomore standing or instructor permit)	3	
MGMT	491	Management Internship (Completion of 60 semester hours and department approval)	3	
MKTG	472	Supply Chain Management (MGMT 370 & MKTG 321)	3	
STQM	351	Quality Control for Management	3	
		Total Credits	12	

1. In consultation with Professor Eshbach, IRC212M, the student will complete a Leadership and Project Management Minor checksheet, indicating the courses he/she plans to complete. Signatures of the student and advisor are required.
2. The completed Leadership and Project Management Minor checksheet will be forwarded to the Management Department Head for approval. The approved checksheet will then be forwarded to Student Records in the College of Business.
3. Grades of the completed courses for the Leadership and Project Management Minor will be posted on the student's checksheet.
4. A term prior to completion of the Leadership and Project Management Minor program, the student will make an appointment with the Graduation Secretary in the College of Business, BUS 200. Upon verification that the student has completed the bachelor's degree requirements, the Dean's Office will then notify the Registrar who will note the completion of the Leadership and Project Management   Minor on the student's official transcript.

NOTE: No more than 50% of the credits in this minor may be transferred from another institution, nor, will this minor be granted if more than 6 of the certificate credits are specifically required in the students' major.

NOTICE REGARDING WITHDRAWEL, RE-ADMISSION AND INTERRUPTION OF STUDIES
Students who return to the university after an interrupted enrollment (not including summer semester), must normally meet the requirements of the curriculum which are in effect at the time of their return, not the requirements which were in effect when they were originally admitted.

NOTE: A 2.00 GPA is required for completion of the Project Leadership Minor.

Declaration Form on Reverse Side

FERRIS STATE UNIVERSITY

ACADEMIC MINOR DECLARATION FORM

Name:_____

Student Number:_____

College:_____

Major: _____

Requirements for: **Lean Systems Minor**

Effective Semester:_____

A minimum of 18 semester hours of credit in the minor are required, with an overall 2.0 grade point average for the courses in the minor. The following courses are required for certification of the minor.

Required Courses	Date Completed	Required Courses	Date Completed
MGMT 402		Select two of the following: MGMT 305, MGMT 370, MGMT 491, MKTG 472 or STQM 351	
MGMT 412			
MGMT 422			
MGMT 492 **or** MFGE 354			

Scheduling for the major takes the precedent over scheduling for courses in the minor. The University 'does' not guarantee that courses required for the minor will be offered each semester. Certification that the student has met the requirements of the academic minor will not be entered in the academic record until the student has been certified for a bachelor's degree.

PROCEDURE

1. A declaration by a student to pursue an academic minor requires the student , in consultation with the minor advisor in the department offering the minor, to complete the top portion and declaration signature section of this form.

2. This completed form will be submitted by the student to the department head for approval. Upon approval, the form will be forwarded to the dean's office of the college offering the minor. One copy of the form will be sent to the student's dean's office, another to the Registrar's Office, and a final copy provided to the student

Declaration Of Minor	Student	Date
	Minor Advisor	Date
	Department Head	Date

Clearance Of Minor	Minor Advisor	Date
	Department Head	Date
	Dean (College Offering Minor)	Date

Term-by-Term Plan for Students

This minor offers 18-hours of coursework to prepare individuals for careers in Lean Systems technical and non-technical fields. There are multiple options for students to proceed with the minor. Below represents some of those options:

	Fall		Spring	
	1st Year	**2nd Year**	**1st Year**	**2nd Year**
Option 1	MGMT 492	MGMT 370	MGMT 422	MGMT 402
	MGMT 305			MGMT 412
Option 2	MGMT 492	MGMT 305	MGMT 422	MGMT 402
	MGMT 370			MGMT 412
Option 3	MGMT 370	MGMT 422	MGMT 305	MGMT 402
	MFGE 354			MGMT 412
Option 4	MKTG 472	MGMT 492	MGMT 370	MGMT 402
				MGMT 422
				MGMT 412
Option 5	MGMT 492	MGMT 422	STQM 351	MGMT 402
	MGMT 491			MGMT 412

Course	Title	Credits
MGMT 402	Six Sigma Process Management	3
MGMT 412	Lean Culture & Skills Development	3
MGMT 422	Lean Accounting	3
MGMT 492	Lean Service Enterprise Leadership OR	3
MFGE 354	Lean Manufacturing	3
MGMT 305	Supervision and Leadership OR	3
MGMT 370	Quality – Operations Management OR	3
MGMT 491	Management Internship OR	3
MKTG 472	Supply Chain Management	3
STQM 351	Quality Control for Management	3

NEW COURSE INFORMATION FORM

FORM E

Course Identification

Prefix: MGMT   **Number:** 422   **Title:** Lean Accounting

Course Description: (125 words maximum)
The course concentrates on utilizing a lean-focused set of simplified accounting, control, and measurement tools to develop accurate, timely, & understandable financially driven strategies to motivate and sustain a lean transformation throughout a service or manufacturing organization resulting in increased customer value, organizational growth, and profitability.   Areas of concentration include developing value stream costing, performance management, target costing, operational planning and the financial impact of lean improvements. Prerequisite: MGMT 492 or MFGE 354 and Junior standing.

Course Outcomes and Assessment Plan:

Assessment of Lean Accounting Outcomes

Course Outcome	Current State and Future State Value Stream	Target Costing	Value Stream Operational Planning	Lean Performance Measures	Lean Accounting Assessment	Value Stream Financial Management	Discussion Questions	Participation	Mid-term Exam
Learning Outcome 1: Determine how to increase customer value through comparing the value stream costs with the customer's need for value and the company's need for growth and financial return. Identify the customer's drivers of value and the drivers of costs.	X						X	X	X
Learning Outcome 2: Design a short and long term operating plan that integrates the company's sales, marketing, product development, production, and distribution processes to maximize customer value and profitability.			X				X	X	
Learning Outcome 3: Develop and implement integrated metrics for production/service cells, value streams, office processes, and the whole plant or division through using lean measurements to drive continuous improvement at every level of your organization.				X			X	X	X
Learning Outcome 4: Evaluate and determine a financial transition plan for an organization.						X	X	X	

Learning Outcome 5: Create a lean system to manage, control, and improve an organization's value stream financial transformation. Develop a "maturity path" for the elimination of non-value added transactions while maintaining excellent financial and operational control.						X	X	X	X

Course Outline including Time Allocation:

MGMT 422 Course Outline Including Time Allocation:

I. Lean Performance Measures (11 hours)
    a. Lean Assessment
    b. The Performance Measurement Framework - Measures that Motivate Lean Action
    c. Company Value-Stream, Cell and Process Measurements
    d. Keeping Metrics Visual and Simple
    e. Continuous Improvement

II. Value Stream Accounting (15 hours)
    a. Managing by Value Stream
    b. Value Stream Performance Measurements
    c. Value Stream Costing
    d. Value Stream Capacity
    e. Controlling and Reducing Costs
    f. Developing Understandable Reports
    g. Reporting Frequency
    h. Operational Planning

III. Lean Product and Service Costing (6 hours)
    a. Value Stream Decision Making
    b. Box Score Method

IV. Transaction Elimination (7 hours)
    a. Transaction Heavy documents and processes
    b. Simplifying Transaction Processes
    c. Sales, Operational and Financial Planning (SOFP)
    d. Value Stream Demand and Operational Planning
    e. Developing a "Maturity" path

V. Target Costing (6 hours)
    a. Calculating Target Costs – Identifying the drivers of value and costs
    b. Understanding Customer Value
    c. Increasing Customer Value
    d. Balancing organizational Costs with Customer Value
    e. Integrating Target Costing with Organizational Strategy

Total 45 hours

Express Time Allocation in one of the following formats for a 3 credit hour course; adjust accordingly:

    X   Weeks (15 weeks)

    X   Hours (45 hours; assuming 3 contact hours per week)

    X   Percentages (100 percent)

CREATE NEW COURSE

Course Data Entry Form

FORM F

Rev. September 2012

COMPLETE ALL SECTIONS BELOW. If this course is to be used as a prerequisite for other university courses, Form F's that reflect the prerequisite change must be submitted for those courses as well. See Appendix E Instructions for Completing Forms.

I. ACTION TO BE TAKEN: CREATE A NEW COURSE

Desired Term Effective (6 digit code only): **201308** Examples: 201301(Spring), 201305(Summer), 201308(Fall)
Note: The first four digits indicate year, the next two digits indicate month in which term begins.

II. NEW COURSE ATTRIBUTES:

a. Course Prefix **MGMT**   b. Number **422**   c. Contact Hours *3* LECture   **X**   LAB   ☐ Seminar
[Enter hours per week in box. See formula for contact hours to credit hours in Appendix E.]

d. ☐ Practicum   INDependent Study
[Check (x) box as appropriate. See definitions in Appendix E.]

e. Course Title: Lean Accounting   (Limit to 30 characters including punctuation and spaces.)

f. College Code: **BU** g. Department Code: **MGMT** h. Credit Hours: Check (x) type ☐ Variable ☒ Fixed

i. Enter number in box: **3.0** Minimum Credit Hours   j. **3.0** Maximum Credit Hours

k. May Be Repeated for Added Credit: Check (x) ☐ Yes ☒ No
If yes, Max Times   or Max Credits Awarded

l. Levels: Check (x) ☒ Undergraduate ☐ Graduate ☐ Professional

m. Grade Method: Check (x) ☒ Normal Grading ☐ Credit/No Credit (Pass/Fail)

n. Does proposed new course replace an equivalent course? Check (x) ☐ Yes   ☒ No

o. Equivalent course: Prefix   Number

p. CATALOG DESCRIPTION – Limit to 125 words – PLEASE BE CONCISE.
The course concentrates on utilizing a lean-focused set of simplified accounting, control, and measurement tools to develop accurate, timely, & understandable financially driven strategies to motivate and sustain a lean transformation throughout a service or manufacturing organization resulting in increased customer value, organizational growth, and profitability.   Areas of concentration include developing value stream costing, performance management, target costing, operational planning and the financial impact of lean improvements. Prerequisite: MGMT 492 or MFGE 354 and Junior standing.

q. Term(s) Offered: **F, SP, SU**   r. Max Section Enrollment: **25** s. Prerequisites or Restrictions: (If none, leave blank. Limit to 100 characters including punctuation and spaces.) MGMT 492 or MFGE 354 and Junior standing.

t. Co-requisites: courses must be taken concurrently (if none, leave blank. Limit to 100 characters including punctuation and spaces.) **None**

To be completed by Academic Affairs Office: - Standard & Measures Coding and General Education Code
☐ Basic Skill (BS) ☐ General Education (GE) ☐ Occupational Education (OC)   ☐ G.E. Codes

UCC Chair Signature/Date:

Sandy Alspach   3/27/13

Academic Affairs Approval Signature/Date:

_____ /   /

Office of the Registrar use ONLY
Date Rec'd: ____ Date Completed: ____   Entered: SCACRSE ___   SCADETL ___   SCARRES ___   SCAPREQ ___

21

PROPOSED   Ferris State University – College of Business   FORM D
MANAGEMENT DEPARTMENT
LEAN SYSTEMS MINOR – 18 Credits

Name:_____ ID#:_____

REQUIRED		COURSE TITLE – PREREQUISITES SHOWN IN BRACKETS ( )	S.H.	GRADE
Four Required Classes (12 credits)				
MGMT	402	**Six Sigma Process Management** (MGMT 492 or MFGE 354 and Junior standing)	3	
MGMT	412	**Lean Culture and Skills Development** (MGMT 492 or MFGE 354 and Junior standing)	3	
MGMT	422	**Lean Accounting** (MGMT 492 or MFGE 354 and Junior standing)	3	
MGMT	492	**Lean Service Enterprise Leadership** (Junior Status) **OR**	3	
MFGE	354	**Lean Manufacturing** (Junior status)		
		Select Two Classes From the List Below (6 credits)		
MGMT	305	**Supervision and Leadership** (Second semester Sophomore status)	3	
MGMT	370	**Quality-Operations Management** (Sophomore standing or instructor permit)	3	
MGMT	491	**Management Internship** (Completion of 60 semester hours and department approval)	3	
MKTG	472	**Supply Chain Management** (MGMT 370 & MKTG 321)	3	
STQM	351	**Quality Control for Management** (STQM 260 w/ a C- or better)	3	
		Total Credits	12	

1. In consultation with Professor Eshbach, IRC212M, the student will complete a Lean Systems Minor checksheet, indicating the courses he/she plans to complete. Signatures of the student and advisor are required.
2. The completed Lean Systems Minor checksheet will be forwarded to the Management Department Head for approval. The approved checksheet will then be forwarded to Student Records in the College of Business.
3. Grades of the completed courses for the Lean Systems Minor will be posted on the student's checksheet.
4. A term prior to completion of the Lean Systems Minor program, the student will make an appointment with the Graduation Secretary in the College of Business, BUS 200. Upon verification that the student has completed the bachelor's degree requirements, the Dean's Office will then notify the Registrar who will note the completion of the Lean Systems Minor on the student's official transcript.

NOTE: No more than 50% of the credits in this minor may be transferred from another institution, nor, will this minor be granted if more than 6 of the certificate credits are specifically required in the students' major.

NOTICE REGARDING WITHDRAWEL, RE-ADMISSION AND INTERRUPTION OF STUDIES
Students who return to the university after an interrupted enrollment (not including summer semester), must normally meet the requirements of the curriculum which are in effect at the time of their return, not the requirements which were in effect when they were originally admitted.

NOTE: A 2.00 GPA is required for completion of the Lean Systems Minor.

Declaration Form on Reverse Side

FERRIS STATE UNIVERSITY

ACADEMIC MINOR DECLARATION FORM

Name:_____   Student Number:_____

College:_____   Major: _____

Requirements for: **Lean Systems Minor**   Effective Semester:_____

A minimum of 18 semester hours of credit in the minor are required, with an overall 2.0 grade point average for the courses in the minor. The following courses are required for certification of the minor.

Required Courses	Date Completed	Required Courses	Date Completed
MGMT 402		Select two of the following: MGMT 305, MGMT 370, MGMT 491, MKTG 472 or STQM 351	
MGMT 412			
MGMT 422			
MGMT 492 **or** MFGE 354			

Scheduling for the major takes the precedent over scheduling for courses in the minor. The University 'does' not guarantee that courses required for the minor will be offered each semester. Certification that the student has met the requirements of the academic minor will not be entered in the academic record until the student has been certified for a bachelor's degree.

PROCEDURE

1. A declaration by a student to pursue an academic minor requires the student, in consultation with the minor advisor in the department offering the minor, to complete the top portion and declaration signature section of this form.

2. This completed form will be submitted by the student to the department head for approval. Upon approval, the form will be forwarded to the dean's office of the college offering the minor. One copy of the form will be sent to the student's dean's office, another to the Registrar's Office, and a final copy provided to the student

Declaration of Minor	Student	Date
	Minor Advisor	Date
	Department Head	Date

Clearance of Minor	Minor Advisor	Date
	Department Head	Date
	Dean (College Offering Minor)	Date

Re: 3/27 UCC Meeting
Lisa M Eshbach
to:
Sandra L Alspach
03/22/2013 05:45 PM
Cc:
Anita Fagerman, Paula L Hadley-Kennedy
Hide Details
From: Lisa M Eshbach/FSU

To: Sandra L Alspach/FSU@FERRIS

Cc: Anita Fagerman/FSU@FERRIS, Paula L Hadley-Kennedy/FSU@Ferris

Thanks for the quick reply, Sandy. I appreciate the invitation. I will plan on being there on Wednesday, 3/27/13 at 12 noon.

Have a good weekend.
Lisa

Lisa Eshbach, Ph.D.
Assistant Professor
College of Business
Management Department
1301 S. State St. - IRC 212M
Big Rapids, MI 49307-2284
Ph: (231) 591-3197

-----Sandra L Alspach/FSU wrote: -----
| To: Lisa M Eshbach/FSU@FERRIS
| From: Sandra L Alspach/FSU
| Date: 03/22/2013 04:57PM
| Cc: Anita Fagerman/FSU@FERRIS, Paula L Hadley-Kennedy/FSU@Ferris
| Subject: Re: 3/27 UCC Meeting

| Lisa,

| Your proposals were just posted today, so we haven't had time to review them. Knowing your attention to detail and your administrative support, they are probably complete and accurate. But I meet with the Registrar, Elise Gramza, and our administrative liaison Paul Blake the hour before the UCC convenes to make sure that all the i's are dotted and the t's are crossed on the new proposals on the agenda. Then I announce to the committee at the beginning of the

meeting which proposals on the agenda require further attention before we deliberate on them.

You are welcome to attend the meeting at noon in CSS 302; and you are invited to share our soup/salad lunch. If your proposals are brought to the committee for support, I will give you a few minutes to summarize your intent (remembering that we have read the proposals) and to answer any questions the committee members have. Just be prepared for the possibility that the proposals are "held" for some additional information or corrections. Unfortunately we have had initiators come to the meeting only to learn that their proposals will not be addressed that day.

Sandra L. "Sandy" Alspach, Ph.D.
Professor / Sports Communication champion
Department of Humanities: Communication
127 Johnson Hall
1009 Campus Drive
Ferris State University
Big Rapids, MI 49307
(o) 231-591-2779
(f) 231-591-2188

Lisa M Eshbach---03/22/2013 02:38:36 PM---Hi Sandy, It is my understanding that two proposals that I have been actively working on will be d

From: Lisa M Eshbach/FSU
To: Sandra L Alspach/FSU@FERRIS,
Date: 03/22/2013 02:38 PM
Subject: 3/27 UCC Meeting

Hi Sandy,

It is my understanding that two proposals that I have been actively working on will be discussed on Wednesday, 3/27/13 during the UCC meeting. Could I attend the meeting?

Lisa

Lisa Eshbach, Ph.D.
Assistant Professor
College of Business
Management Department
1301 S. State St. - IRC 212M
Big Rapids, MI 49307-2284
Ph: (231) 591-3197

Course Evaluation/Student Assessment of Instruction

Questions you may be asking:

1. **Why are we moving to an online course evaluation system?**

   With the large number of courses to be evaluated each semester and the competing demands on the time of individuals working in institutional research, for many years, course evaluation feedback has not been provided in time for the information to be useful to faculty in improving their courses. The new system will enable almost instant results, as the reports will be made available to faculty on the date specified, which we now plan will be the day after final grades are due each semester.

2. **How are we going to assure high student response rates?**

   A series of reminders will be sent to students, and we will be posting announcements on MyFSU, in FerrisConnect, on bulletin boards, and wherever else we think students may notice. We also strongly encourage all faculty and academic leaders to emphasize the importance of this information to them and urge students to complete the forms. Having the option of using mobile devices to complete the evaluations may further prompt students' completion. We are also considering attractive incentives (random drawings) that will encourage high participation rates. Consideration is also being given to approaches by which individual faculty could reward high participation levels while assuring the anonymity of students.

3. **What instrument/survey questions will be used?**

   The Campus Labs software product will be used with the current SAI form or any other instrument that a department or college plans to use. Those who have already adopted IDEA will continue to use that vehicle, as it provides many of the same benefits we seek with Campus Labs – including timely feedback and the ability to produce summary reports. A distinct advantage of using an electronic system is that individual faculty, departments, or colleges may also add some questions specific to their

areas that would be valuable to them. They may also decide to use a different form that better suits their needs. However, there will always be some required institutional questions. . . the determination of which will be forthcoming by fall 2013.

4. **Will the system be integrated with Banner and/or FerrisConnect?**
The names and required identifying information, such as e-mail addresses, for both students and faculty will be extracted from Banner. IT and Student Affairs personnel are working on that approach now and are on target to have the system operational by April 1. Within that week we plan that colleges/departments can begin to identify the courses to be surveyed during the spring semester of 2013.

5. **What is the schedule for administration of the course evaluations for spring semester 2013?**
Tentative schedule follows:
     April 1 – System Operational
     April 1-10 – Training available for users
     April 2-15 – Colleges prepare their questions/courses
     April 15 (Monday) – All course evaluations released to all students
     April 23 (Tuesday) – first reminder to only those who did not respond
     May 1 (Wednesday) – second reminder to those who did not respond
     May 9 (Thursday) – Last Call Reminder
     May 13 (Monday) – Grades due by 1 p.m.
     May 13 (Monday) – Systems CLOSE at 11 p.m. (if can be set auto)
     May 14 (Tuesday) – any time after midnight – Reports Available
     May 15 (Wednesday) – Academic Affairs will run Institutional Summary Reports

6. **Who will produce the reports for individual faculty members?**
Faculty members will be expected to produce their own reports. Step-by-step instructions will be provided on a one-page flyer. This flyer will be distributed by all College representatives to all faculty in their colleges – both in paper form and electronically. The guide will be posted on an Academic Affairs website that will also be referenced on the flyer. Through the transition, some faculty may request some assistance, but it is not expected that colleges will assume this responsibility.

7. **Who will produce reports for use by college leaders?**
    Designated college representatives will likely be asked to produce individual and summary reports for departments and the college. Each college will produce its own reports on the timelines that meet their needs and in the ways they wish to use the reports. Each dean will specify who has access to producing reports for each area.

8. **Who will see these reports?**
    Only individuals with responsibility for overseeing academic integrity and those individuals supporting that work will be provided access to reports within the colleges. This typically includes the Dean, Department Heads, and the Dean's or Department's secretaries.

The Student Life Committee would like to submit this proposal for the April agenda of the Senate meeting. Thank you,

Claire Rewold

The motion as approved is:

"Whereas the majority of our students spend Sunday (Easter) of the Mid-semester Recess visiting with their families, this places an unnecessary travel burden on them to hurry back on Sunday night from their family homes to be back for Monday morning classes, we the Student Life Committee move the following:

1) Mid-semester Recess should be modified to include Friday through Monday (as opposed to Thursday through Sunday).
2) As we recognize that this could cause a reduction in the number of meetings of MWF classes, it is proposed that Monday classes be held on the Thursday of the week before the recess."

2012 NSSE SUMMARY

PREPARED BY ROBERTA C. TEAHEN, PH.D.

Prepared by Associate Provost Roberta C. Teahen, Ph.D.

and Reviewed by the Academic Affairs Assessment Committee

November 2012

Revised March 2013 with disaggregated data for Kendall, Pharmacy,
and Ferris Undergraduate

NSSE OVERVIEW

According to NSSE publication, "The National Survey of Student Engagement (NSSE) annually surveys first-year and senior students at participating baccalaureate-granting colleges and universities to assess the extent to which they engage in and are exposed to proven educational practices that correspond to desirable learning outcomes. Institutions use the results to develop programs and practices that promote student engagement. Learn more at http://www.nsse.iub.edu/"

FERRIS INVOLVEMENT WITH NSSE

Ferris has administered the NSSE in 2006, 2008, 2010, and 2012. We also had a trial administration in 2005. All of the data from all years is on the Ferris website at
http://www.ferris.edu/HTMLS/administration/academicaffairs/assessment/nsse/

Each year has resulted in a higher number of respondents and a response rate above other institutions collectively and with consistent reports, providing increased confidence in the results. Although university-wide discussion sessions have been held for at least the 2008 and 2010 administrations, no interventions that have been specifically tied to the NSSE findings have been implemented.

WHO PARTICIPATED IN 2012? (INCLUDING KENDALL)

- Overall Ferris response rate was 35%, with 36% of seniors and 34% of freshmen completing the survey; this compares to 22% in the Great Lakes Region and 25% for all NSSE responses. Higher response rates is attributed to attractive gift drawing incentives (I-Pad, Kindle Fire, and $50 gift certificates)

- Total Populations of 855 Freshmen and 2718 Seniors (Number of freshmen in 2010 was 1835 and seniors numbered 2429)

- All responses were web-based

- 94% of first-year and 58% of senior respondents were enrolled full-time

- 54% of first-year and 60% of senior respondents are female (58 and 55% respectively in 2010)

- 80% of freshmen and 81% of seniors reported their race/ethnicity as White, while the second highest category were the 5% in each group that preferred not to respond

- 64% of the Freshmen lived on campus while only 6% of the seniors did

- 9% of the freshmen were transfer students and 65% of seniors were. For the Great Lakes region, just 45% of respondents were transfers, with 44% representing transfers in the total database. In 2010, 5% of first-year students identified themselves as transfer students while 53% identified themselves as transfer students in that year.

- Just 5% of the freshmen were 24 years of age or older, while 62% of the seniors were 24 and older; in 2010, 46% of seniors were 24 or older.

- Overall Sampling error is just 2.2%, meaning that the results may vary by + or – 2.2% but the rate is 4.7% for freshmen

- A total of 287 freshmen and 976 seniors responded.

- In the discipline area reports, the distribution was as follows:

Arts and Humanities	54 first-year students and 81 seniors
Biological Sciences	14 first-year students and 37 seniors
Education	16 first-year students and 96 seniors
Social Sciences	10 first-year students and 29 seniors
Business	37 first-year students and 136 seniors
Engineering	13 first-year students and 83 seniors
Physical Sciences	0 first-year students and 9 seniors
Other	65 first-year students and 250 seniors*

*Additional analysis of the discipline areas is being conducted to determine why so many are in the "other" category and what the actual program majors of students are.

Added March 2013:

When removing Pharmacy and Kendall, the Big Rapids campus had approximately 901 seniors responding. Note that Pharmacy's student information was not included in the initial report but they were counted in the totals. The characteristics of Ferris seniors responding to this survey are:

- 23% were enrolled in fully online offerings

- 66% were full-time students; 34% were part-time

- 65% started their educations elsewhere; 35% started at Ferris

- 58% were female; 42% male

- 37% were between the ages of 20 and 23; 27% were between the ages of 24 and 29

- 24% of the seniors' parents completed a baccalaureate or higher, while 33% have no college, and 7% lacked high school credentials.

COMPARING NSSE WITH CCSSE (COMMUNITY COLLEGE SURVEY OF STUDENT ENGAGEMENT)

Many of the same questions are utilized for the Community College Survey of Student Engagement. Their results are likely more appropriately contrasted with first-year students, so these are offered as comparisons:

Question	NSSE Mean	CCSSE Mean	Ferris Freshman Mean
Asked questions in class or contributed to class discussions	2.88	2.94	2.66
Made a class presentation	2.31	2.11	2.32
Participated in a community-based project as a part of a regular course	1.62	1.33	1.64
Worked with other students on projects during class	2.46	2.51	2.48
Encouraged contact among students from different economic, social, and racial or ethnic backgrounds	2.77	2.55	2.55
Providing the support you need to thrive socially	2.55	2.19	2.36
Prepared two or more drafts of a paper	2.70	2.52	2.60

Discussed career plans with instructor or advisor	2.23	2.08	2.28
Making judgments about the value or soundness of information, arguments, or methods	2.97	2.61	2.74
Applying theories or concepts to practical problems or in new situations	3.11	2.71	3.03

HIGHLIGHTS OF OVERALL 2012 FINDINGS

Adjusted with removal of Kendall Students

(means in parentheses are WITH Kendall)

Ferris students' reporting of their experiences have been quite consistent over time suggesting that the experiences are not very different for students over this six-year period and providing an opportunity for targeting improvement efforts.

- Among the five categories analyzed by NSSE, Ferris rates lowest in the area of enriching educational experiences, with a rating of 25.2 (24.7) for freshmen and a 36.4 (36.1) among seniors.

- For seniors, the level of enriching educational experiences is in the bottom 50% of all NSSE institutions, with a gap in the mean of 36.4 (36.1) for Ferris seniors compared to a mean of 48.4 to be placed in the top 50% of institutions, while a mean of 56.0 would be needed to reach the top 10%

- The second lowest performance rating by students is in Student-Faculty Interaction, with seniors reflecting a mean of 43.2 (43). To reach the mid-point of all NSSE institutions would require a mean of 50.3; to reach the top 10% would require 56.

- The third lowest performance rating is in the area of Active and Collaborative Learning where seniors report a mean of 54.9 (54.4). To reach the top 50% would require a mean of 56.3; top 10% requires 60.6.

- The second highest ranking is in the area of Level of Academic Challenge (LAC), where the seniors' mean is 57.9 (57.6). To be in the top 50% would require 61.8. In the entire NSSE database, LAC is the second highest rated category. To earn a spot in the top 10% would require a mean of 64.3.

- Ferris seniors rate a Supportive Campus Environment (SSE) as the greatest strength, with a mean of 58.9 (58.8). Nationally SSE is also highest rated, with the top 50% rating a 65.4 and the top 10% at 69.2.

- Across all five categories, freshmen also report means in the lowest 50% of all institutions.

- Ferris picked the Great Lakes Region as its first comparison group. There were 12 institutions that reported within that group in 2012. Included are Ball State; Case Western; Central Michigan; Cleveland State; Indiana University – Purdue University Indianapolis; Lake Superior; Michigan Technological University; Northern Illinois University; Saginaw Valley State University; Southern Illinois University – Edwardsville; Southern Illinois University Carbondale; University of Akron.

- When benchmarking with different groups, Ferris *first-year* students exceed the mean of the Great Lakes Region slightly for Student-Faculty Interaction (34.8 vs. 34.6), while our Carnegie Class peers report 36.1 and the entire NSSE 2012 responses are 35.9. To be in the top 50% requires a mean of 40.2.

- When benchmarking with different groups, Ferris *seniors* exceed the Great Lakes Region in Level of Academic Challenge with 57.9 (57.6) while the Great Lakes Region reports 56.1; the Carnegie class reports 58.0; and the NSSE 2012 is 58.4.

- Ferris seniors also exceed the mean of the Great Lakes Region for Active and Collaborative Learning with a mean of 54.9 (54.4) while the Great Lakes Region reports 51.3; Carnegie Class is 53; and NSSE 2012 is 52.1. This is the only category where Ferris seniors report a higher level of experience than all other groups, although the differences are small. As an area of potential strength, this could be an area to build further upon.

- Seniors also report a mean of 43.0 for Student-Faculty Interaction, while the Great Lakes Region mean is 41.6. However, this factor is approximately the same as the Carnegie Class at 43.7 and the NSSE 2012 of 42.9.

- Ferris seniors also report a supportive campus environment higher than the Great Lakes Region with 58.9 (58.8) vs. 56.8. However, the Carnegie Class and NSSE 2012 figures are 60.8 and 60.6 respectively.

The table that follows provides a synopsis of some of the major characteristics of the NSSE findings for the 2012 administration:

Category	2010 First-Year Students	2012 First-Year Students	2010 Seniors	2012 Seniors	2012 Mean Required to be in Top 50% for Seniors	Significant Difference for Seniors

Level of Academic Challenge	51.6	49.9 (50.4)	55.2	57.9 (57.6)(With Kendall)	61.8	
Active and Collaborative Learning	44.6	41.9 (41.8)	53.3	54.9 (54.4)	56.3	NEG ***
Student-Faculty Interaction	37.0	34.6 (34.8)	41.7	43.2 (43.0)	50.3	
Enriching Educational Experiences	25.9	24.7	36	36.1	48.4	NEG***
Supportive Campus Environment	62	60.7	56.9	58.8	65.4	NEG*

HIGHLIGHTS OF 2012 DISCIPLINARY FINDINGS

All of the entries below INCLUDE Kendall students.

- In Arts and Humanities, First-Year students had a mean above the Great Lakes Region in the areas of Student-Faculty Interaction and Supportive Campus Environment, but below both the Carnegie Class and NSSE 2012 for these and the other three categories (LAC, ACL, EEE).

- Arts and Humanities Seniors rated above the Great Lakes Region in Active and Collaborative Learning; Student Faculty Interaction; and Supportive Campus Environment, but rated below the Carnegie Class and NSSE 2012 in all areas.

- Biological Sciences seniors had a higher mean than the Great Lakes Region in Active and Collaborative Learning, but fell below the mean for Carnegie Class and NSSE 2012 and below all comparison groups for all other categories.

- Education Seniors report a mean above the Great Lakes Region education seniors for each of the five categories. They also report a mean higher than the Carnegie Class and NSSE 2012 in four of the five other categories, with the exception of Supportive Campus Environment where the Carnegie Class is 62.5 and Ferris education is 62.1.

- Social Sciences seniors are significantly above all three comparison groups social science groups in all except one area, with LAC of 63.5 compared to 60.5; ACL at 61.2 vs. 51.9 for NSSE; 53.4 in SFI vs. 46.1 for NSSE; 49.9 in EEE vs. 45.4 in NSSE. The one exception is a 60.1 in Supportive Campus Environment at 60.1 vs. NSSE at 61.5, but they do exceed the Great Lakes Region of 57.2 here.

- Business Seniors exceed other business seniors in the Great Lakes Region (56.8 vs.55) for Level of Academic Challenge; and Supportive Campus Environment. They also exceed business seniors in all groups in Active and Collaborative Learning; Student-Faculty Interaction.

- Ferris Seniors in engineering surpass their peers in the Great Lakes Region in Level of Academic Challenge (56.8 vs. 55.9). They surpass both Great Lakes and NSSE 2012 in Active and Collaborative Learning (52.6 vs. 49.0 and 51.5 respectively); and they surpass all three comparison groups for Faculty Student Interaction and Supportive Campus Environment. They fall below in all comparisons for Enriching Educational Experiences.

- "Other Profession" seniors exceed the Great Lakes Region in Level of Academic Challenge and exceed the Great Lakes, Carnegie, and NSSE in Active and Collaborative Learning, although just slightly. They fall short in all comparisons in student-faculty interaction, enriching educational experiences, and supportive campus environments. A total of 251 Ferris students classified themselves into this category. In the future we need to try to track individual program majors with student respondents for a better picture since we cannot determine where these 251 have experience.

- Physical Sciences: Report pending

- Within Ferris, here are the *Senior* groups reporting the highest overall means for seniors in each category:

  - Level of Academic Challenge (LAC): Social Sciences at 63.5 (n = 29 and institutional mean = 57.6)

  - Active and Collaborative Learning (ACL): Education at 62.4 (n = 96 and institutional mean = 54.4)

  - Student-Faculty Interaction (SFI): Social Sciences at 53.4 (n = 29 and institutional mean = 43.0)

  - Enriching Educational Experiences (EEE): Education at 42.9 (n = 96 and institutional mean = 36.1)

- Supportive Campus Environment (SCE): Engineering at 63.5 (n = 83 and institutional mean = 58.8.

Reflecting on Student Perspectives Reported by NSSE

Academic Senate Presentation
Based on 2012 AY Data
Roberta Teahen
March 5, 2013

Ferris State University will be:

The recognized leader in integrative education, where theory meets practice throughout the curriculum, and where multi-disciplinary skills important in a global economy are developed with the result that Ferris State University will also be:

- The preferred choice for students who seek *specialized, innovative, career- and life-enhancing education*

- The *premier educational partner* for government, communities, agencies, businesses, and industries through applied research and joint ventures

- A *stimulating, student-centered academic environment that fosters life-long engagement, leadership, citizenship, and continuing intellectual development*

- A university that *aligns its practices and resources* in support of its core values of collaboration, diversity, ethical community, *excellence, learning,* and opportunity

Ferris State University Vision

NSSE Data is One Important Source of the Evidence that Justifies our Claims to Accreditors – Regional and Specialized

HLC Expectations are One Consideration

New HLC Standards – Effective January 2013

3.B. The institution demonstrates that the exercise of intellectual inquiry and the acquisition, application, and integration of broad learning and skills are integral to its educational programs.

○ 2. The institution articulates the purposes, content, and intended learning outcomes of its undergraduate general education requirements. The program of general education is grounded in a philosophy or framework developed by the institution or adopted from an established framework. **It imparts broad knowledge and intellectual concepts** to students and **develops skills and attitudes that the institution believes every college educated person should possess.**

○ 3. **Every degree program offered by the institution engages students in collecting, analyzing, and communicating information; in mastering modes of inquiry or creative work; and in developing skills adaptable to changing environments.**

Relevant HLC standards

4. The education offered by the institution recognizes the human and cultural diversity of the world in which students live and work.

5. The faculty and students contribute to scholarship, creative work, and the discovery of knowledge to the extent appropriate to their programs and the institution's mission.

- 3.E. The institution fulfills the claims it makes for an enriched educational environment.

- 1. Co-curricular programs are suited to the institution's mission and contribute to the educational experience of its students.

2. The institution demonstrates any claims it makes about contributions to its students' educational experience by virtue of aspects of its mission, such as research, community engagement, service learning, religious or spiritual purpose, and economic development.

Criterion Four. Teaching and Learning: Evaluation and Improvement

The institution demonstrates responsibility for the **quality of its educational programs, learning environments, and support services,** and it **evaluates their effectiveness** for student learning through processes designed to **promote continuous improvement.**

Relevant HLC Standards

Relevant HLC standards

5.D. The institution works systematically to improve its performance.

1. The institution develops and documents evidence of performance in its operations.

2. The institution learns from its operational experience and **applies that learning to improve its institutional effectiveness,** capabilities, and sustainability, overall and in its component parts.

My Framework for Consideration of the NSSE Data

1. NSSE is one piece of data in a wide repertoire of indicators that inform our planning and improvements – and tell us how we are doing.

1. A Quality-focused institution addresses areas needing attention with a goal of enhancing the results in key performance areas

1. As students change (more online, more transfer), approaches may also need to change.

1. Improvement is everyone's responsibility and challenge.

Freshmen perspectives over time

Senior Perceptions over time. . .
(incl Kendall and Pharmacy)

Category	2010 First-Year Students	2012 First-Year Students	2010 Seniors	2012 Seniors	2012 Mean Required to be in Top 50% for Seniors	Significant Difference for Seniors
Level of Academic Challenge	51.6	49.9 (50.4)	55.2	57.9 (57.6) (With Kendall AND Pharmacy)	61.8	CORRECTION FROM EXEC SUMM
Active and Collaborative Learning	44.6	41.9 (41.8)	53.3	54.9 (54.4)	56.3	NEG ***
Student-Faculty Interaction	37.0	34.6 (34.8)	41.7	43.2 (43.0)	50.3	
Enriching Educational Experiences	25.9	24.7	36	36.1	48.4	NEG***
Supportive Campus Environment	62	60.7	56.9	58.8	65.4	NEG*

RED text color on the following slides indicates that Ferris is *significantly* below the NSSE 2012 data for freshmen, seniors, or both.

Blue indicates those where Ferris is significantly above the NSSE results.

Key . . .

What are Enriching Educational Experiences?

- Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment.

- Had serious conversations with students of a different race or ethnicity than your own

- Had serious conversions with students who are very different from you in terms of their religious beliefs, political opinions, or personal values

Enriching . . .continued

- Practicum, internship, field experience, co-op experience, or clinical assignment.

- Community service or volunteer work.

- Participate in a learning community or some other formal program where groups of students take two or more classes together.

- Foreign language coursework.

- Study abroad

- Encouraging contact among students from different economic, social, and racial or ethnic backgrounds.

- Independent study or self-designed major.

- Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)

- Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)

Enriching. . .

What constitutes active and collaborative learning?

- Asked questions in class or contributed to class discussions.

- Made a class presentation.

- Work with other students on projects **during class**

- Worked with classmates outside of class to prepare class assignments.

- Tutored or taught other students (paid or voluntary)

Active/Collaborative continued

- Participated in a community-based project (e.g., service learning) as part of a regular course.

- Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

What contributes to a supportive campus climate?

- Relationships with other students

- Relationships with faculty members

- Relationships with administrative personnel and offices

- Providing the support you need to help you succeed academically.

Supportive Campus Environment

- Helping you cope with your non-academic responsibilities (work, family, etc.)

- Providing the support you need to thrive socially.

Areas where Ferris is significantly below NSSE, not included in above categories: *(None were above NSSE overall)*

- Work on a research project with a faculty member outside of course or program requirements

- Discussed grades or assignments with an instructor

- Talked about career plans with a faculty member or advisor.
- Received prompt written or oral feedback from faculty on your academic performance.

- Worked harder than you thought you could to meet an instructor's standards or expectations.

- Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)

Student–Faculty Interaction – OVERALL within range of overall NSSE; these examples significantly below overall

Significantly Below NSSE:

- Acquiring a broad general education

- Writing clearly and effectively

- Thinking critically and analytically

- Analyzing quantitative problems

- Voting in local, state, or national elections

Other items not in the LAC, EEE, etc. tallies

Other items . . .

- Learning effectively on your own

- Understanding yourself

- Understanding people of other racial and ethnic backgrounds

- Developing a personal code of values and ethics

- Contributing to the welfare of your community

- Developing a deepened sense of spirituality

Significantly Above NSSE:

- Acquiring job or work-related knowledge and skills

- Using computing and information technology
- Working effectively with others

- **Evaluating your entire educational experience at the institution**

- Ferris Mean = 3.18 for First-year Students

- Ferris Mean = 3.11 for Senior Students, which is significantly below the NSSE average.

Ferris should identify a few specific improvement activities

- At the individual level
- At the program level
- At the college level
- Need to engage the entire community

What could we do to bring Ferris into the top 50% of colleges and universities?

Imagine More!

What will **you** do to enhance students' educational experiences in the areas of enriching educational experiences, active and collaborative learning, student-faculty interaction, and/or supportive campus community?

One additional effort **each** week by 500+ Ferris faculty and staff will change the culture dramatically – and likely change students' evaluations of their Ferris experiences.

Next Steps

1. Review of FSSE (Faculty Survey of Student Engagement) data by Adnan Dakkuri and Todd Stanislav – April Senate?

1. Review of data IN Colleges and Crafting Interventions

2. Special Session to further examine the NSSE data to integrate changes by fall.

3. Next NSSE Administration: Spring 2014

Never doubt that a small group of thoughtful, committed citizens can change the world.

Indeed, it is the only thing that ever has.

Margaret Mead …

3.3 CERTIFICATES AND CONCENTRATIONS

3.3.1 PHILOSOPHY AND PURPOSE

Today's world has shrunk due to advances in technology and communications. Governments, businesses, organizations and cultures must interact with one another on a daily basis in fashions not dreamed possible several years ago. The constant and fast-paced changes have caused upheavals in the areas of politics, geographical boundaries, cultural and ethnic groups, businesses and society in general. Some of the results have been the disappearance of businesses and jobs.

As a result of these changes, there is an increasing need to educate and train people for industry, professions and society. Ferris State University has demonstrated that it is in a unique position to lead the necessary retraining of America. The purpose of certificate and concentration programs is to fulfill these needs.

3.3.2 POLICY
The University Curriculum Committee will determine whether a certificate will be designated "Advanced Studies Certificate" or "Certificate". The determination will be based on the content and level of the courses. The UCC will also consider the intent of the certificate and background of the expected audience. Certificates must have Student Learning Outcomes statements clearly linked to measurable assessment strategies.

3.3.3 Certificates Defined
A certificate shall consist of at least 6 credit hours earned at Ferris State University designed to demonstrate additional skills or training to complement the student's current skill set. It may be granted upon completion with an average GPA of 2.0 or higher in the course(s) designated for the certificate.

3.3.4 Concentrations Defined
A concentration shall consist of at least 6 credit hours earned at Ferris State University designed to focus study on a specific skill set or workplace application within the student's baccalaureate degree program.

(approved by the Academic Senate on November 1, 2011)