

# The University Of Toledo

## New Graduate Course Proposal

\* denotes required fields

1. College\*:
- Department\*:
2. Contact Person\*:  Phone:  (xxx - xxxx) Email:
3. Alpha/Numeric Code (Subject area - number)\*:  -
4. Proposed title\*:   
Proposed effective term\*:  ( e.g. 201140 for 2011 Fall)
5. Is the course cross-listed with another academic unit?  Yes  No
- Approval of other academic unit (signature and title)
- Is the course offered at more than one level?  Yes  No
- If yes, an undergraduate course proposal form must also be submitted. If the undergraduate course is new, complete the [New Undergraduate Course Proposal](#); if the undergraduate course is existing, submit an [Undergraduate Course Modification Proposal](#).
6. Credit hours\*: Fixed:  or Variable:
- to
7. Delivery Mode:
- |                           | Primary*                             | Secondary                                   | Tertiary                                    |
|---------------------------|--------------------------------------|---|---|
| a. Activity Type *        | <input type="text" value="Seminar"/> | <input type="text" value="--SelectType--"/> | <input type="text" value="--SelectType--"/> |
| b. Minimum Credit Hours * | <input type="text" value="3"/>       | <input type="text"/>                        | <input type="text"/>                        |
| Maximum Credit Hours *    | <input type="text" value="3"/>       | <input type="text"/>                        | <input type="text"/>                        |
| c. Weekly Contact Hours * | <input type="text" value="3"/>       | <input type="text"/>                        | <input type="text"/>                        |
8. Terms offered:  Fall  Spring  Summer
- Years offered:  Every  Alternate

**Year                      Years**

9. Are students permitted to register for more than one section during a term?  No  Yes

May the courses be repeated for credit?  No  Yes Maximum Hours

10. Grading System\*:  
 Normal Grading (A-F, S/U, WP/WF, PR, I)  
 Satisfactory/Unsatisfactory (A-C, less than C)  
 Grade Only (A-F, WP/WF, PR, I)  
 Audit Only  
 No Grade

11. Prerequisites (must be taken **before**): i.e. C or higher in (BIOE 4500 or BIOE 5500) and C or higher in MATH 4200

PIN (Permisson From Instructor)  PDP (Permission From Department)

Co-requisites (must be taken **together**):

12. Catalog Description\* (**75 words Maximum**)

This course covers the rich vein of IS research that falls outside the Technology Acceptance Model or quantitative positivist research genre. These include examining questions of IT strategy and the value of IT to business firms. The value of IT to the organization has been approached using various theoretical lenses.

13. Attach a syllabus - a syllabus template is available from the University Teaching Center. Click [here](#) for the Center’s template.

File Type	View File
Syllabus	<a href="#">View</a>

14. Comments/Notes:

INFS 8760: IS Research Seminar I and INFS 8770: IS Research Seminar II are two doctoral-level seminars that have been added to significantly bolster the quality of education delivered in the IS track. Our IS PhD candidate must acquire mastery of the key research papers in the IS field if they are to find placement in reputable institutions. This will be achieved through these two rigorous seminars.

### 15. Rationale:

We have simultaneously submitted a proposal to revise the PhD program in Manufacturing and Technology Management. In this proposal, we attempt to strengthen the Information Systems (IS) and Operations and Supply Chain Management (OSCM) tracks in this PhD Program. We have significantly increased the emphasis on the core research methods by introducing new courses and seminars.

### Course Approval:

Department Curriculum Authority:	Bassam Hasan	Date	2017/04/03
Department Chairperson:	P. S. Sundararaghavan	Date	2017/04/03
College Curriculum Authority or Chair:	Michael Mallin	Date	2017/04/03
College Dean:	Anand S. Kunnathur	Date	2017/04/03
Graduate Council:	Constance Schall, GC mtg 4/18/17	Date	2017/04/19
Dean of Graduate Studies:	Amanda C. Bryant-Friedrich	Date	2017/05/01
Office of the Provost :		Date	

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### Administrative Use Only

**Effective Date:**

  (YYYY/MM/DD)

**CIP Code:**

**Subsidy Taxonomy:**

**Program Code:**

**Instructional Level:**

### Registrar's Office Use Only

**Processed in Banner on:**

 

**Processed in Banner by:**

**Banner Subject Code:**

**Banner Course Number:**

**Banner Term Code:**

**Banner Course Title:**



## INFS 8\*\*\*: IS Research Seminar II

The University of Toledo  
College of Business and Innovation

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**Instructor:**  
**Term:**  
**Credit Hours:**  
**Class Location:**  
**Class Day/Time:**

**Office Hours:**  
**Office Location:**  
**Office Phone:**  
**Email:**

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### COURSE DESCRIPTION

This seminar will cover the wealth of IS research that lies outside the genre that examines user acceptance of information technology using models such as the Unified Theory of Use and Acceptance of Technology (UTAUT). The perennial question of the value of technology to businesses will be examined from both a quantitative valuation perspective as well as from a competitive strategy perspective where IT can be fashioned as a competitive weapon. The theory of real options will be used to inform the quantitative valuation perspective. Various theories of competitive strategy such as Porter's competitive forces model and the Resource-Based View (RBV) will be used as the lens for examining how IT can be fashioned to serve as a competitive weapon for the firm.

### STUDENT LEARNING OUTCOMES

1. Understand the shift from the somewhat bounded approach to technology adoption taken by the TAM genre of models to broader models that incorporate new antecedents to adoption such management fads and fashions and new moderators of the link between adoption drivers and firm performance such as absorptive capacity.
2. Understand the fundamental nature of the problem in determining a value for IT, which is encapsulated in the famous IT productivity paradox.
3. Learn about different approaches to placing a value of IT, not all of which are rooted in firm financial performance as measured by revenue, cost, and profit metrics. The role of intermediate process variables in ascribing a value to IT will be studied.
4. The emergence of real options theory as a new and better approach to valuing technology investments under conditions of uncertainty will be examined. The student will learn about various options pricing models for IT investments and how to apply them.
5. The business value of IT is assessed not solely in monetary terms but also in terms of IT's contribution to the firm's competitive. The student will learn about the key theories of competitive advantage such as Porter's competitive forces model and the Resource-Based View (RBV). How these theories can be used to fashion IT as a competitive weapon will be studied.

### REQUIRED TEXTS AND ANCILLARY MATERIALS

Selected academic journal articles. The key journal articles in the area of technology acceptance have been identified on pages 3 and 4.



## UNIVERSITY POLICIES

Policy Statement on Non-Discrimination on the basis of Disability (ADA). The University is an equal opportunity educational institution. Please read [The University's Policy Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance](#).

## ACADEMIC ACCOMMODATIONS

The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information regarding academic accommodations/adjustments in this course please contact the [Student Disability Services Office](#).

## GRADING

Class presentation and discussion: 50%  
Research Paper 50%

**Grading Scale:** You may earn grades based on the following scale:

A	≥ 93	B -	83 - 80	D +	69 – 67
A -	92 - 90	C +	79 - 77	D	66 – 63
B +	89 - 87	C	76 - 73	D -	62 – 60
B	86 - 84	C -	72 - 70	F	< 60

## Class Presentation and Discussion

Each class will be structured as a discussion of a set of articles for that week. Prior to class each week, you are expected to read all of the articles assigned for that week. Students will be called upon to present on the article(s) assigned to them. In addition to presenting on the article(s) assigned to you, you are also expected to actively engage in discussion on the articles presented by your fellow students.

## Research Paper

For your research paper, you are expected to formulate a research idea to explore and then write a paper on it. You must do a thorough literature search of all articles pertinent to your research question. The paper that you will submit must include the following sections:

- Abstract
- Introduction
- Literature Review
- Research Methodology
  - Hypothesis Development
  - Theoretical Model
  - Statistical Methodology
  - Instrument

You do not have to complete the data collection process in this course but the paper should be complete in all other respects. The tasks of data collection, analysis, and determining results can be done in a later semester. Your research paper must formulate the hypotheses and the theoretical model that you will test. You should also complete the



survey instrument that you propose to use. This research paper is intended to get you started on doing serious, systematic, and high-quality research. You will make a presentation to the class at the end of the semester on your research paper.

### Course Outline

The following topics will be covered in this seminar-oriented course. There is no textbook for this course. Hence, these topics will be treated through discussing the key journal articles identified in the section on articles.

Category	Topic	
Beyond the dominant paradigm of information technology acceptance	New antecedents	Theory of management fads and fashion
		Social contagion
	New moderators	Absorptive capacity
		Innovation mindfulness
Value of IT	The productivity paradox	
	Intermediate process variables perspective	
	Real options theory	
Information technology strategy	Resource-based view (RBV)	
	Porter's competitive forces model	
	IT as a competitive weapon	

### Key Journal Articles

1. Abrahamson, E. (1991) "Managerial fads and fashions: The diffusion and rejection of innovations." *Academy of Management Review* 16(3) 586-612.
2. Abrahamson, E. (1996) "Management fashion." *Academy of Management Review* 21(1) 254-285.
3. Banker, R.D., R.J. Kauffman and R.C. Morey, Measuring gains in operational efficiency from information technology: A study of the positron deployment at Hardee's Inc., *Journal of Management Information Systems* 7 (1990) 29-54.
4. Barney, J. B. (1991) "Firm resources and sustained competitive advantage." *Journal of Management*, 17, 99-120.
5. Barney, J. B. (2001b). Is the resource-based "view" a useful perspective for strategic management research? Yes. *Academy of Management Review*, 26, (1), 41-56.
6. Benaroch, M., Jeffery, M., Kauffman, R.J., and Shah, S. Option-based risk management: A field study of sequential information technology investment decisions. *Journal of Management Information Systems*, 24, 2 (2007), 103-140.
7. Benaroch, M., and Kauffman, R.J. Justifying electronic banking network expansion using real options analysis. *MIS Quarterly*, 24, 2 (2000), 197-225.
8. Bharadwaj, A.S. (2000) "A Resource-based perspective on information technology capability and firm performance: An empirical investigation." *MIS Quarterly* 24(1) 169-196.
9. Brynjolfsson, E. (1993) "The productivity paradox of information technology." *Communications of the ACM* 36(12), 66-77.



10. Brynjolfsson, E., and L. Hitt (1996) "Paradox lost? Firm-level evidence on the returns to information systems spending." *Management Science* 42(4) 541-558.
11. Cohen, W.M., and D.A. Levinthal (1990) "Absorptive capacity: A new perspective on learning and innovation." *Administrative Science Quarterly* 35(1) 128-152.
12. Dos Santos, B. Justifying investment in new information technologies. *Journal of Management Information Systems*, 7, 4 (1991), 71-89.
13. Dixit, A.K., R. S. Pindyck. 1995. The options approach to capital investment. *Harvard Business Review* (May-June) 105-115.
14. Fichman, R.G. (2004) "Going beyond the dominant paradigm of information technology innovation research." *Journal of the Association for Information Systems* 5(8) 314-355.
15. Fiol, C.M., and E.J. O'Connor (2003) "Waking up! Mindfulness in the face of bandwagons," *Academy of Management Review* 28(1) 54-70.
16. Greve, H.R. (1995) "Jumping ship: The diffusion of strategy abandonment." *Administrative Science Quarterly* 40(3) 444-473.
17. Miller, L.T., Park, C.S., 2002. Decision-making under uncertainty – real options to the rescue? *The Engineering Economist* 45 (1), 105-150.
18. Mooney, J.G., V. Gurbaxani, and K.L. Kraemer (1996) 27(2) 68-81.
19. Park, C.S., Herath, H.S.B., 2000. Exploiting uncertainty – investment opportunities as real options: A new way of thinking in engineering economics. *The Engineering Economist* 45 (1), 1-35.
20. Porter, M.E. (2008) "The five competitive forces that shape strategy." *Harvard Business Review*, January 2008, 86-104
21. Rivard, S., L. Raymond, and D. Verreault (2006) "Resource-based view and competitive strategy: An integrated model of the contribution of information technology to firm performance." *Journal of Strategic Information Systems* 15(1) 29-60.
22. Tallon, P., K.L. Kraemer and V. Gurbaxani, Executives' perceptions of the business value of information technology: A process-oriented approach, *Journal of Management Information Systems* 16 (2000) 145-173.