

**Service Science  
MGMT 150 / COGS 152  
University of California, Merced  
Fall 2012**

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**Lecture** Thursday, 6:00 – 8:45 PM, COB 105

**UCMCROPS** F12-COGS 152/MGMT 150 LEC

**URL** <http://faculty.ucmerced.edu/pmaglio/mgmt150.html>

<b>Grades</b>	Four short papers	7 points each
	Two exams	20 points each
	Participation	7 points
	Attendance	5 points
	Final paper	20 points
	(Extra credit available	15 points)

## Assignments

- Aug 30 Service Journal.** Two-page paper due: Describe *two specific services* you've used, one that you think is good and one that you think is not-so-good. Describe how each works and your interactions with them, showing why you think one is better than the other and how you might improve the not-so-good one. **Hint:** Keep a service journal all term—it may come in handy for later assignments.
- Oct 4 Real Complaints.** Two-page paper due: Analyze a set of actual customer complaint letters. Complaint letters for a specific industry (e.g., banking) or firm (e.g., American Airlines) can be downloaded from the customer feedback site [www.planetfeedback.com](http://www.planetfeedback.com) or [www.complaints.com](http://www.complaints.com). A sample of 25 letters should be used. Read each carefully and classify the complaints along dimensions of service quality, such as reliability, responsiveness, assurance, empathy, tangibles, and so on. Also classify the types of solutions suggested in the letters, and perhaps suggest your own. Your paper should outline the complaints and improvements. **Hint:** You may find it useful to classify and tally types of complaints and improvements, and report the numbers.
- Nov 1 Service Design.** Two-page paper due: Create and describe a service blueprint for one of the services you've encountered (e.g., as described in your service journal). Focus on **either front-stage or back-stage** processes (not both). Fill in a blueprint diagram (available on UCMCROPS), describe how each process works, where the decision points are, how problems or errors may be handled, and so on. **Hint:** You can also relate your diagram and design to a service journal entry.
- Nov 15 Innovation.** Two-page paper due: Invent a new innovative service based on an existing service you have experience with (e.g., as described in your service journal). Your description should focus on differences from the existing service and on how your suggestions make it better. Innovation in service results from systematic reconfiguration of the roles and responsibilities in a service system (see Normann & Ramirez, 1993). For example, you may take an existing offline service and identify modifications to enhance the service using interactive capabilities of online technologies, or you may consider some ways in which service customers can take on more or less responsibility for service processes. Many other approaches are possible. **Hint:** You can also relate your innovative service design to a service journal entry.
- Nov 29 Extra Credit: Service Interview.** Two page paper. Interview a front-stage or back-stage worker at a service business. Describe what the worker's environment is like (climate, culture, internal services), what the business's priorities (values) are, and how service operations work, including the role of the customer. Relate what you learn to concepts we've discussed and read about this term (such as culture, productivity, satisfaction, recovery, and anything else that seems relevant – this is critical, be reflective and logical). Assess the business based on your discussion. Be clear on what business and

what kind of worker your interviewed – no need to name names, but be clear as to what you did. **Hint:** Develop a little interview “protocol” or guide beforehand to ensure you cover everything you want in your interview.

**Dec 6 Final Paper.** Five-page (plus references) paper due: The final paper must (1) pose a question about service or a question for service science more broadly, and (2) provide a thoughtful, well-reasoned discussion of the issues related to it. All papers must include references to at least six published articles, chapters, or books that are **not** on the *required* reading list. You cannot use web sources (such as Wikipedia), but must rely on traditionally published materials. References must be formatted in a standard style, either following *The Chicago Manual of Style*, the *Publication Manual of the American Psychological Association*, or some other standard. **Hint:** You can find plenty of potential references on the *optional* reading list.

## Ground Rules and Other Useful Information

### *Being in Class*

When you’re in class, be in class. If you have a laptop, use it to take notes or look up things related to the class or to the discussion, but please don’t use it for any non-class activities. It’s simple: Show up, pay attention, ask questions, participate.

### *Participation*

In-class participation is required. So raise your hand. Get called on. You don’t have to answer questions. You can ask them. Just take part in the discussion. Be an active part of the class. You’ll learn more. There are seven points for participation, and if we don’t know who you are, you can’t get too many of them.

### *Attendance*

Attendance is required. There are five points for attendance, and we will take attendance at each lecture. Miss two lectures, lose one point, miss four, lose two points, and so on. Please try to attend especially when there is a guest speaker.

### *Guest Speakers*

We have lined up great guest speakers this term, including practitioners and professors. The guest speakers may not always be tightly related to the lecture topic of the day (scheduling is hard), but will always be relevant to service. These folks have gone out of their way and traveled to be here for you. So show up, be polite, and participate.

### *Exams*

There will be two exams, one on September 20 and one on October 25. Exams are worth 20 points each. All questions will be multiple-choice, based on both required readings and lectures. There will be extra-credit questions based on optional readings.

***Papers***

All papers must be single-spaced with one-inch margins on all sides, and formatted in a legible font (such as Times Roman) with font-size 12. All papers must be clearly written (see Strunk and White's *Elements of Style*) and proofread so they contain few typos.

***Short Papers: Maximum length, two pages***

There are four assignments plus an optional extra-credit assignment. Each is a short, two-page paper worth 7 points: 2 points for turning it in on time, up to 2 points for reasonably clear and grammatical writing, and up to 3 points for coherent and appropriate content.

***Final Paper: Maximum length, 5-pages (plus references)***

The final paper is due on the last day of class. It paper is worth 20 points: 5 for clarity of thought and writing; 5 for execution in terms of formatting, organization, and logic; and 10 for effort, which depends on how interesting, well thought out, and supported the paper is.

***Turning in Work; Late or Missing Work***

Papers must be turned in through UCMCROPS by 6:00 PM the day they are due. Short papers can be turned in up to a week late, but the maximum score for a late paper is 5 points. The extra credit assignment cannot be turned in late. The final paper cannot be turned in late. If you have a problem with any of this, contact Paul or Michelle.

***Cheating and Academic Honesty***

Don't cheat. Like all universities, UC Merced has a formal policy on this:

<http://studentlife.ucmerced.edu/what-we-do/student-judicial-affairs/academicy-honesty-policy> .

***Disability Services***

UC Merced is committed to ensuring equal academic opportunities and inclusion for students with disabilities (see <http://disability.ucmerced.edu/>). If you need any assistance, please contact Paul or Michelle.

***Office Hours and Contact***

Paul's office hours are before class on Thursdays 5:00 – 6:00 PM. To schedule an appointment at a different time, contact Paul by email at [pmaglio@ucmerced.edu](mailto:pmaglio@ucmerced.edu).

Michelle's scheduled office hours are Mondays 1:00 – 3:00 PM. For other times, contact Michelle at [mgreenwood@ucmerced.edu](mailto:mgreenwood@ucmerced.edu).

And please feel free to contact Paul or Michelle with any type of issue or question you have about the class.

**If you send email, please put *MGMT 150* or *COGS 152* in the subject line or else we may miss it.**

**Course Outline: So what is service science?**

The US economy – and economies of all industrialized nations – are made primarily of service jobs (more than 80% of jobs in the US are service jobs. So chances are that when you get out of school, you are going to be working in a service job or in the service sector.

*Service science* is the study of service, which can be broadly defined as actions that one takes on behalf of another (such as washing a car or managing web servers). There really is no such thing as service science today – there is no single accepted, integrated, interdisciplinary scientific study of the service economy or of service jobs. Service science is more like a movement whose goal is to focus attention on service-related problems. Service science is emerging. Its basic unit of analysis is the *service system*, made of configurations of people, technologies, and other resources that interact with other configurations to create mutual value. Many systems can be viewed as service systems, including families, cities, and companies.

More precisely, *service* is the application of resources (including competences, skills, and knowledge) to make changes that have value for another entity. For instance, in information technology (IT) outsourcing services, a service provider operates computing infrastructure for a service client. The provider augments the client's capabilities, taking on responsibility for monthly service-level agreements and year-over-year productivity improvements. The formal representation and modeling of service systems is nascent, largely because of the complexity of modeling people, their knowledge, activities, and intentions. Service system complexity is a function of the number and variety of people, technologies, and organizations linked in value-creation networks, such as professional reputation systems of a single kind of knowledge worker or profession, work systems composed of multiple types of knowledge workers, enterprise systems, industrial systems, national systems, and even the global service system. Knowledge workers depend on their knowledge, tools, and social-organizational networks to solve problems, be productive, continually develop, and generate and capture value. Service science must combine formal models with models of human behavior to understand service systems.

**Course Learning Goals: What will you learn in this course?**

In this course, you will learn about service. You will learn what service is, why it is different from other sectors and other jobs, and why it is important. You will learn about problems in service, such as measuring performance, increasing quality, and creating innovation. You will learn how some have recently begun to study service from a variety of different perspectives – including social sciences, cognitive science, management, engineering, and others – to address these problems. This new approach is called *service science*. You will learn how this kind of interdisciplinary research might be effective in studying and understanding service. In the end, you will be able to have an informed and intelligent conversation about the nature of service, how to think about measurement in service, and how to increase innovation in service. And you will be (at least a little more) ready for the workforce you are about to enter.

**Course Learning Outcomes: Wait... what will you be learning?**

By the end of this course, you will be able to:

1. Define “service” and articulate the study of service science.
2. Differentiate service from other sectors and other jobs, and articulate why this differentiation is important.
3. Describe problems in the service sector and their origins.
4. Use disciplinary perspectives of the social sciences, cognitive science, management, and engineering to interpret the study service and address problems within the sector.
5. Describe measurement practices in service and how to increase innovation in service.

To support success across the Service Science minor coursework, these course learning outcomes will help you reach the Service Science *Program Learning Outcomes* (see the SSHA Service Science webpage for more information):

1. Describe through a multidisciplinary lens the process of how knowledge is converted to value in the services sector
2. Assess how goods and services can be improved, administered, and optimized
3. Apply appropriate information technology to analyze basic business processes and recommend strategies for improvement and optimization
4. Present basic knowledge of the relationship between IT and service systems
5. Use professionalism in writing and speaking that is consistent with the discipline

To support success across the Management coursework, these course learning outcomes will help you reach the Management *Program Learning Outcomes* 2, 3, and 5 (see the SSHA Management webpage for more information):

2. Apply theories and concepts from the discipline of Management and related fields (e.g. accounting, economics, statistics, finance, marketing, human resource management, strategy and business law) to management situations.
3. Use effective written and oral communication consistent with the discipline and professional environments.
5. Evaluate ethical, social, and external issues as they relate to the organization, operations, and people.

To support success across the Cognitive Science coursework, these course learning outcomes will help you reach the Cognitive Science *Program Learning Outcomes* 1 and 3 (see the SSHA Cognitive Science webpage for more information):

1. Explain and apply knowledge of landmark findings and theories in cognitive science, and use that knowledge as context for understanding the current state of affairs.
3. Interpret and appreciate formal and computational approaches in cognitive science.

## Readings

### Books (Available at the UC Merced Bookstore)

Hsieh, T. (2010). *Delivering happiness: A path to profits, passion, and purpose*. New York: Business Plus.

Teboul, J. (2006). *Service is front stage: Positioning services for value advantage*. Insead Business Press/Palgrave Macmillan.

**Note:** This text is also available online for free through UC Merced library.

### Book Chapters (eBook available for purchase on web)

Fitzsimmons, J. A. & Fitzsimmons, M. (2011). *Service Management: Operations, Strategy, and Information Technology* (Seventh Edition). McGraw Hill.

**Note:** To purchase this eBook (\$56.61), go to

<https://create.mcgraw-hill.com/shop/#/catalog/details/?isbn=9781121608856>

### Articles and Chapters (Available through UCMCROPS)

Campbell, C. S., Maglio, P. P. & Davis, M. M. (2011). From self-service to super-service: How to shift the boundary between customer and provider. *Information Systems and eBusiness Management*, 9(2) 173-191.

Chase, R. B. (1978). Where does the customer fit in a service operation? *Harvard Business Review*, 56, 137 – 142.

Clark, H. H. & Brennan, S. E. (1991). Grounding in communication. In L. B. Resnick, J. M. Levine & S. D. Teasley (Eds.), *Perspectives on Socially Shared Cognition*. APA Press.

Frei, F. X. (2006). Breaking the trade-off between efficiency and service. *Harvard Business Review*, 84, 93 – 101.

Frei, F. X. (2008). The four things a service business must get right. *Harvard Business Review* (April): 70-80.

Glushko, R. J. (2010). Seven contexts for service system design. In P. P. Maglio, C. A. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Gummesson, E. (2010). The future of service is long overdue. In P. P. Maglio, C. A. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Heskett, J. L., Jones, T. O., Loveman, G. O., Sasser, W. E., Schlesinger, L. A. (1994). Putting the service profit chain to work. *Harvard Business Review*, 72, 164 – 174.

Hutchins, E. (1995). How a cockpit remembers its speeds. *Cognitive Science*, 19, 265 – 288.

- Maglio, P. P., Srinivasan, S., Kreulen, J. T., Spohrer, J. (2006). Service systems, service scientists, SSME, and innovation. *Communications of the ACM*, 49, 81– 85.
- Maglio, P. P., Kandogan, E., & Haber, E. (2008). Distributed cognition and joint activity in computer-system administration. In M. S. Ackerman, C. Halverson, T. Erickson, & W. A. Kellogg (Eds.), *Resources, co-evolution, and artifacts: Theory in CSCW*. New York: Springer.
- Maglio, P. P. & Spohrer, J. (2008). Fundamentals of service science. *Journal of the Academy of Marketing Science*, 36, 18-20.
- Maglio, P. P., Vargo, S. L., Caswell, N. & Spohrer, J. (2009). The service system is the basic abstraction of service science. *Information Systems and e-business Management*, 7, 395-406.
- Moon, Y. & Frei, F. X. (2000). Exploding the self-service myth, *Harvard Business Review*, 78, 26-7.
- Normann, R. & Ramirez, R. (1993). From value chain to value constellation: Designing interactive strategy. *Harvard Business Review*, 71, 65 – 77.
- Spohrer, J. & Maglio, P. P. (2010). Service science: Toward a smarter planet. In W. Karwowski & G. Salvendy (Eds.), *Introduction to service engineering*. New York: Wiley & Sons.
- Spohrer, J. & Maglio, P. P. (2008). The emergence of service science: Toward systematic service innovations to accelerate co-creation of value. *Production and Operations Management*, 17(3), 1-9.
- Spohrer, J., Maglio, P. P., Bailey, J. & Gruhl, D. (2007). Steps toward a science of service systems. *Computer*, 40, 71-77.
- Vargo, S. L. & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68, 1 – 17.

### **Optional Readings** (Available through UCMCROPS)

- Bitner, M. J., Ostrom, A. L., & Meuter, M. L. (2002). Implementing successful self-service technologies. *Academy of Marketing Executive*, 16, 96 – 109.
- Bitner, M. J., Ostrom, A. & Morgan, F. (2008). Service blueprinting: A practical technique for service innovation. *California Management Review*, 50, 66 – 94.
- Chase, R. B. & Dasu, S. (2001). Want to perfect your company's service? User behavioral science. *Harvard Business Review*, (June), 79 – 84.
- Chesbrough, H. & Davies, A. (2010). Advancing services innovation: Five key concepts. In P. P. Maglio, C. A. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.
- Gadrey, J. (2002). The misuse of productivity concepts in services: Lessons from a comparison between France and the United States. In J. Gadrey & F. Gallouj (Eds.), *Productivity, Innovation, and Knowledge in Services: New Economic and Socio-economic Approaches*. Cheltenham UK: Edward Elgar, pp. 26 – 53.



- Glushko, R. J. & Tabas, L. (2009). Designing service systems by bridging the “front stage” and “back stage”, *Information Systems and eBusiness Management*, 7, 407-427.
- Hagel, J. & Singer, M. (2000). Unbundling the corporation. *The McKinsey Quarterly*, 2000/3, 148 – 161.
- Herzenberg, S., Alic, J. & Wial, H. (1999). A new deal for a new economy. *Challenge*, 42, 102 – 129.
- Hill, P. (1977). On goods and services. *Review of Income and Wealth*, 23, 315 – 338.
- IfM & IBM (2008). *Succeeding through service innovation: A service perspective for education, research, business and government*. Cambridge, UK: University of Cambridge Institute for Manufacturing. ISBN: 978-1-902546-65-0
- Johnson, B. C., Manyika, J. M., & Yee, L. A. (2005). The next revolution in interactions. *The McKinsey Quarterly*, 2005/4, 20 – 33.
- Lovelock, C. (1983). Classifying services to gain strategic market insights. *Journal of Marketing*, 43, 10 – 20.
- Lovelock, C. & Gummesson, E. (2004). Whither services marketing? In search of a new paradigm and fresh perspectives. *Journal of Service Research*, 7, 20 – 41.
- Miles, I. (2008). Patterns of innovation in service industries. *IBM Systems Journal*, 47, 115 – 128.
- Palmisano, S. J. (2006). The globally integrated enterprise. *Foreign Affairs*, 85, 127 – 136.
- Prahalad, C. K. & Ramaswamy, V. (2000). Co-opting customer competence, *Harvard Business Review*, 78, 79-93.
- Sampson, S. E. (2010). The unified service theory: A paradigm for service science. In P. P. Maglio, C. A. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.
- Schneider & Bowen (2010). Winning the service game: Revisiting the rules by which people co-create value. In P. P. Maglio, C. A. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.
- Schultze, U. & Bhappu, A. D. (2005). Incorporating self-serve technology into co-production design. *International Journal of E-Collaboration*, 1, 1 – 23.

## Syllabus

- Aug 23      Lecture 1: What is Service?  
 Reading: Fitzsimmons & Fitzsimmons (2011), Chapter 1 (pp. 3–16)  
               Teboul (2006), Chapter 1  
 Optional: Hill (1977), Lovelock (1983), Herzenberg et al (1999)
- Aug 30      Lecture 2: Creating a Service Culture  
 Reading: Fitzsimmons & Fitzsimmons (2011), Chapter 9 (pp. 203-226)  
               Heskett et al (1994)  
               Teboul (2006), Chapter 3  
 Optional: Schneider & Bowen (2010)  
**Service Journal Assignment Due**
- Sept 6      Lecture 3: Delivering Happiness  
 Guest Speaker: **Steve Shackelton**, National Park Service  
 Reading: Hsieh (2010)  
 Optional: Fitzsimmons & Fitzsimmons (2011), Chapter 3 (pp. 39-70)
- Sept 13     Lecture 4: The Role of the Customer  
 Guest Speaker: **Michael Dixon**, Naval Postgraduate School  
 Reading: Chase (1978)  
               Fitzsimmons & Fitzsimmons (2011), Chapter 2 (pp. 17-38)  
               Teboul (2006), Chapter 2  
 Optional: Chase & Dasu (2001), Sampson (2010)
- Sept 20     **Exam 1**
- Sept 27     Lecture 5: Measuring Service Quality  
 Guest Speaker: **Joe Serna**, Bank of America  
 Reading: Fitzsimmons & Fitzsimmons (2011), Chapter 6 (pp. 125-166)  
               Frei (2006)  
               Teboul (2006), Chapter 6 – 7  
 Optional: Gadrey (2002)
- Oct 4      Lecture 6: Self Service and Super Service  
 Reading: Fitzsimmons & Fitzsimmons (2011), Chapter 5 (pp. 103-124)  
               Campbell, Maglio & Davis (2011)  
               Moon & Frei (2000)  
               Teboul (2006), Chapter 4  
 Optional: Bitner et al (2002), Schultze & Bhappu (2005)  
**Real Complaints Assignment Due**
- Oct 11      Lecture 7: Coordination and Distributed Cognition  
 Guest Speaker: **Nick Flor**, University of New Mexico  
 Reading: Clark & Brennan (1991)  
               Hutchins (1995)  
               Maglio, Kandogan & Haber (2008)  
 Optional: Johnson et al (2005), Prahalad & Ramaswamy (2000)

Oct 18	<p>Lecture 8: How to Design a Service</p> <p>Reading: Fitzsimmons &amp; Fitzsimmons (2011), Chapter 4 (pp. 71-102)</p> <p>Glushko (2010)</p> <p>Teboul (2006), Chapter 5</p> <p>Optional: Bitner, Ostrom &amp; Morgan (2008), Glushko &amp; Tabas (2009)</p>
Oct 25	<b>Exam 2</b>
Nov 1	<p>Lecture 9: Service Optimization</p> <p>Reading: Fitzsimmons &amp; Fitzsimmons (2011), Chapters 8 (pp. 167-200)</p> <p>Fitzsimmons &amp; Fitzsimmons (2011), Chapter 12 (pp. 227-252)</p> <p>Teboul (2006), Chapter 8</p> <p>Optional: Hagel &amp; Singer (2000)</p> <p><b>Service Design Assignment Due</b></p>
Nov 8	<p>Lecture 10: Service Innovation</p> <p>Guest Speaker: <b>Henry Chesbrough</b>, UC Berkeley</p> <p>Reading: Chesbrough &amp; Davies (2010)</p> <p>Normann &amp; Ramirez (1993)</p> <p>Teboul (2006), Chapter 10</p> <p>Optional: Miles (2008)</p>
Nov 15	<p>Lecture 11: Service Systems</p> <p>Reading: Frei (2008)</p> <p>Maglio et al (2006)</p> <p>Maglio et al (2009)</p> <p>Spohrer et al (2007)</p> <p><b>Innovation Assignment Due</b></p>
Nov 22	<i>Thanksgiving Holiday (No Lecture)</i>
Nov 29	<p>Lecture 12: Service Science</p> <p>Guest Speaker: <b>Bob Glushko</b>, UC Berkeley</p> <p>Reading: Maglio &amp; Spohrer (2008)</p> <p>Spohrer &amp; Maglio (2008)</p> <p>Vargo &amp; Lusch (2004)</p> <p>Optional: Lovelock &amp; Gummesson (2004)</p> <p><b>Extra Credit: Service Interview Assignment Due</b></p>
Dec 6	<p>Lecture 13: Future</p> <p>Reading: Fitzsimmons &amp; Fitzsimmons (2011), Chapter 14 (pp. 253-277)</p> <p>Gummesson (2010)</p> <p>Spohrer &amp; Maglio (2010)</p> <p>Optional: IfM &amp; IBM (2008), Palmisano (2006)</p> <p><b>Final Paper Due</b></p>