

1 specific environment but it provides guidance regarding the core content of the curriculum that  
2 should be present everywhere and suggestions regarding possible electives and career tracks  
3 based on those.

4  
5 IS 2002 (Gorgone et al. 2003) was a relatively minor update of IS'97, the latest comprehensive  
6 revision of the IS model curriculum. IS 2002 included new material related to the explosive  
7 growth of the Internet and electronic business, to the extent that it included a new course  
8 specifically targeted to this topic area. Otherwise, the changes were mostly minor in nature. The  
9 previous curriculum model, IS '97 (Couger et al. 1997; Davis et al. 1997) was circulated in draft  
10 form in 1994 (Gorgone et al. 1994; Longenecker et al. 1994) and 1995 (Couger et al. 1995) and  
11 finalized in 1996. Therefore, a significant revision of the model curriculum is clearly needed and  
12 overdue. These reasons will be discussed at a more detailed level in Section 4.

13  
14 The next sections present the principles guiding the curriculum revision and provide further  
15 motivation for updating IS 2002. This is followed by a review of guiding assumptions about the  
16 IS profession that helped to shape the curriculum design and evolution. Key elements of the  
17 curriculum update from IS 2002 to IS 2009 will follow. Next, the report provides a description of  
18 Information Systems as a field of academic study. The relationship of the IS courses and  
19 programs at various levels is explained. This document presents an entirely new, significantly  
20 expanded section on outcome expectations for the Information Systems graduates. This is  
21 followed by a brief presentation of the curriculum architecture, the resources needed for IS degree  
22 programs, and courses shared with other computing disciplines. Finally, the report concludes by  
23 providing high-level course descriptions of the IS 2009 model curriculum and appendices for  
24 reference.

### 25 26 **3. PRINCIPLES GUIDING THE CURRICULUM DESIGN**

27  
28 The key principles that guided this effort were as follows:

- 29  
30 1. The model curriculum should represent a consensus from the Information Systems  
31 community.
- 32  
33 2. The model curriculum should be designed to help Information Systems faculty produce  
34 competent and confident entry level graduates well suited to workplace responsibilities.
- 35  
36 3. The model curriculum should guide but not prescribe. Using the model curriculum  
37 guidelines, faculty can design their own courses and schools can design their own programs.
- 38  
39 4. The model curriculum should be based on sound educational methodologies and make  
40 appropriate recommendations for consideration by Information Systems faculty.
- 41  
42 5. The model curriculum should be flexible and adaptable to most Information Systems  
43 programs.
- 44  
45 6. The model curriculum is not restricted to a specific domain; all Information Systems  
46 programs are, however, linked to some domain.
- 47  
48 7. The model curriculum has a core of content that is common to all Information Systems  
49 programs.
- 50

1 8. The model curriculum has career targets that require both core and elective content.  
2

### 3 **4. MOTIVATION FOR UPDATING IS 2002**

4  
5 There are several factors motivating the IS curriculum update. This section will provide an  
6 overview of the reasons why it was critically important for the IS community to go through the  
7 curriculum revision process.  
8

9 The first, and most obvious, reason is the time elapsed since the previous update. The last  
10 comprehensive undergraduate curriculum revision was IS'97 (Davis et al. 1997); IS 2002 was  
11 largely an editorial update completed to address the need to take into account the increasing  
12 popularity of e-commerce courses in the IS curriculum (Gorgone et al. 2003). Most of the work  
13 done on IS'97 was completed in the mid-1990s, making the curriculum elements closely linked to  
14 a specific set of technologies quite antiquated.  
15

16 Second, there has been a great deal of change in technology and industry practices. This major  
17 contextual change has several factors driving it, including:

- 18 1. Complex globally distributed information systems development – The full extent of the  
19 distributed nature of IT development was not fully visible during the development of the  
20 previous curriculum. The skills needed by IS graduates have, consequently, changed  
21 significantly. Increasingly, many IS jobs require skills in working with colleagues and  
22 development team members around the world. Further, for business school graduates  
23 capabilities in the management of globally distributed development resources are  
24 increasingly in demand.
- 25 2. Web technologies and development – Mature modeling and development platforms for  
26 the web environment have become a core part of IS development.
- 27 3. Emergence of a new architectural paradigm. Service-oriented architecture, web services,  
28 software-as-a-service, and cloud computing are all important elements in the new way of  
29 organizing the fundamental architecture for computer-based systems and solutions that is  
30 gradually becoming the dominant paradigm of organizational computing.
- 31 4. ERP/package software – Information systems and business processes have become  
32 closely integrated, and increasingly often, core infrastructure applications are based on  
33 large-scale enterprise systems so that the focus has shifted from development to  
34 configuration.
- 35 5. Ubiquitous mobile computing – Global organizational life using a variety of devices has  
36 become dependent on mobile and ubiquitous platforms.
- 37 6. IT control and infrastructure frameworks – Frameworks and standards such as COBIT,  
38 ITIL, and ISO 17799, have become very important sources of guidance for IT/IS  
39 practices in organizations. We have to at least ask the question about what their role is in  
40 IS curricula.  
41

42 Clearly, the professional context in which our graduates do their work has changed considerably  
43 over the past decade, and this change should be reflected in the curriculum. Not only should the  
44 new concepts be covered in the curriculum but the new model they collectively specify for  
45 computing in organizations has a profound impact on the capabilities that Information Systems  
46 graduates need.  
47

48 Third, the interest in the study of IS as a field has dramatically declined among students at most  
49 institutions. Therefore, it is imperative that the IS community as a whole addresses this problem  
50 from several different perspectives, including curriculum design. The response to the enrollment