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Syllabus

HCA-330: Technology and Information Systems for Healthcare

Course Description

Students in this course will assess an organization's technology security systems in view of HIPPA and governmental policies, evaluate technology trends and clinical applications to determine the potential solutions for problems and opportunities for the organization, and analyze health information systems for compliance to organizational objectives. Students will assess crisis management plans and implement technology and information system modifications. A biblical worldview will be integrated throughout the course.

Credit Hours: 3
Prerequisite Courses: None

Course Outcomes

Upon completion of this course, you should be able to:

1. Assess an organization's technology security systems in view of HIPPA and governmental policies.
2. Evaluate technology trends and clinical applications to determine the potential solutions for problems and opportunities for the organization.
3. Analyze health information systems for compliance to organizational objectives.
4. Assess planning to ensure the continuity of information systems through crises situations (e.g., disaster planning, recovery, backup sabotage, natural disasters).
5. Implement information systems modifications (e.g., service architecture, technology lifecycles, and obsolescence).
6. Integrate a biblical worldview into the technology and information management process.

Course Textbook

Brown, G. D, Patrick. T. B, & Pasupathy, K. S. (2013). *Health informatics: A systems perspective*. Chicago, IL: Health Administration Press.

Please note: If you receive your course materials from Tree of Life, you will receive an email from Tree of Life giving you details on how to access the textbook in an eText format.

Grading Scale

Grade	Quality Points Per Credit	Percentage	Score
A	4.0	95% – 100%	950 – 1000
A-	3.7	92% – 94.9%	920 – 949
B+	3.3	89% – 91.9%	890 – 919
B	3.0	85% – 88.9%	850 – 889
B-	2.7	82% – 84.9%	820 – 849
C+	2.3	79% – 81.9%	790 – 819
C	2.0	75% – 78.9%	750 – 789
C-	1.7	72% – 74.9%	720 – 749
D+	1.3	69% – 71.9%	690 – 719
D	1.0	65% – 68.9%	650 – 689
F	0.0	0% – 64.9%	0 – 649

Grading Policies

The grading policy for your course depends on your school and program. Your grading policies can be found in the IWU Catalog.

Letter Grade Equivalencies

Grade	Description of Work
A	Clearly stands out as excellent performance. Has unusually sharp insights into material and initiates thoughtful questions. Sees many sides of an issue. Articulates well and writes logically and clearly. Integrates ideas previously learned from this and other disciplines. Anticipates next steps in progression of ideas. Example "A" work should be of such nature that it could be put on reserve for all cohort members to review and emulate. The "A" cohort member is, in fact, an example for others to follow.

B	Demonstrates a solid comprehension of the subject matter and always accomplishes all course requirements. Serves as an active participant and listener. Communicates orally and in writing at an acceptable level for a graduate student. Work shows intuition and creativity. Example "B" work indicates good quality of performance and is given in recognition for solid work; a "B" should be considered a good grade and is awarded to those who submit assignments of quality less than the exemplary work described above.
C	Quality and quantity of work in and out of class are average. Has marginal comprehension, communication skills, or initiative. Requirements of the assignments are addressed at least minimally.
D	Quality and quantity of work are below average. Has minimal comprehension, communication skills, or initiative. Requirements of the assignments are addressed at below-acceptable levels.
F	Quality and quantity of work are unacceptable and do not qualify the student to progress to a more advanced level of work.

Course Workshop Summary

Workshop	Devotion*	Discussion*	Assignment*	Presentation*	Total Points per Workshop
Workshop One	1/0	2/60	1/100	--	160
Workshop Two	1/0	2/60	1/100	--	160
Workshop Three	1/0	2/60	1/100	--	160
Workshop Four	1/0	2/60	1/100	--	160
Workshop Five	1/0	1/30	1/100	1/230	360
TOTAL	**0**	**9/270**	**5/500**	**1/230**	**1000**

* Number of Activities/Sum Point Totals

Course Assignments

Workshop One Outline

Title	Due Dates	Time	Points
1.1 Discussion: Devotional	Due by the end of the first day of the workshop	30 minutes	0
1.2 Discussion: Disruptive Technology	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
1.3 Discussion: IT Transformation	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
1.4 Assignment: Medical Banking Case Study	Due by the end of the workshop	7 hours	100
Totals		**16.5 hours***	**160**

Workshop Two Outline

Title	Due Dates	Time	Points
2.1 Devotion	Due by the end of the first day of the workshop	30 minutes	0
2.2 Discussion: Vendor Selection	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
2.3 Assignment: HIT and HRM Capabilities	Due by the end of the workshop	7 hours	100

Title	Due Dates	Time	Points
2.4 Discussion: Controlled Vocabulary	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
	Totals	**16.5 hours***	**160**

Workshop Three Outline

Title	Due Dates	Time	Points
3.1 Devotion	Due by the end of the first day of the workshop	30 minutes	0
3.2 Discussion: E-Health	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
3.3 Discussion: Privacy and Security	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
3.4 Assignment: IT Architecture	Due by the end of the workshop	7 hours	100
	Totals	**16.5 hours***	**160**

Workshop Four Outline

Title	Due Dates	Time	Points
4.1 Devotion	Due by the end of the first day of the workshop	30 minutes	0

Title	Due Dates	Time	Points
4.2 Discussion: Clinical Decision Support	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
4.3 Assignment: Whose Body	Due by the end of the workshop	7 hours	100
4.4 Discussion: Genomic Medicine	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
Totals		**16.5 hours***	**160**

Workshop Five Outline

Title	Due Dates	Time	Points
5.1 Devotion	Due by the end of the first day of the workshop	30 minutes	0
5.2 Discussion: Evidence Based CDM	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	4.5 hours	30
5.3 Discussion: Transform Clinical Work Perspective	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	7 hours	30
5.4 Assignment: Knowledge Management	Due by the end of the workshop	4.5 hours	100
5.5 Quiz: Predictive Analytics	Due by the end of the workshop	2 hours	200
End of Course Survey	Due by the end of the workshop	-	10 extra credit

Title	Due Dates	Time	Points
Totals		**18.5 hours***	**360**
Course Totals		84.5 hours*	1000

* These timings are based on estimations of average times to complete each assignment. Actual assignment completion times will vary.

Course Development Resources

Allen, M., Brar, S., & Farrell, L. (2010). Medical education needs to teach health technology assessment. *Medical Teacher, 32*(1), 62-64. https://doi.org/10.3109/01421590903390619

Clarke, A., Lewis, D., Cole, I., & Ringrose, L. (2005, December 2). A strategic approach to developing e-learning capability for healthcare. *Health Information & Libraries Journal, 22*, 33-41. https://doi.org/10.1111/j.1470-3327.2005.00611.x

Damberg, C. L., Ridgely, M., Shaw, R., Meili, R. C., Sorbero, M. S., Bradley, L. A., & Farley, D. O. (2009). Adopting information technology to drive improvements in patient safety: Lessons from the agency for healthcare research and quality health information technology grantees. *Health Services Research, 44*(2p2), 684-700. https://sdoi.org/10.1111/j.1475-6773.2008.00928.x

Eron, L. (2010). Telemedicine: The future of outpatient therapy? *Clinical Infectious Diseases, 51*, S224-S230. http://doi.org/10.1086/653524

Geisler, E., Krabbendam, K., & Schuring, R. (Eds.). (2003). *Technology, healthcare, and management in the hospital of the future*. Retrieved from http://www.ebrary.com

Goldstein, D. (2000). *E-healthcare: Harness the power of internet commerce and e-care*. Gaithersburg, MD: Aspen.

Goldstein, M. M. (2010). Health information technology and the idea of informed consent. Journal of Law, *Medicine & Ethics, 38*(1), 27-35. https://doi.org/10.1111/j.1748-720X.2010.00463.x

Goldstein, M. M., & Blumenthal, D. (2008). Building an information technology infrastructure. *Journal of Law, Medicine & Ethics, 36*(4), 709-715. https://doi.org/10.1111/j.1748-720X.2008.00326.x

Halpern, J. S., & Chaffee, M. W. (2005). Disaster management and response. *Nursing Clinics of North America, 40*(3), 419-593.

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Hersh, W. (2009). *Information retrieval: A health and biomedical perspective*. New York, NY: Springer.

Hussain, A. A. (2011). Meaningful use of information technology: a local perspective. *Annals of Internal Medicine, 154*(10), 690-W.247.

International perspectives in health informatics. (2011). Retrieved from http://www.ebrary.com

Kumar, S. (2011). What finance needs to know about using technology to improve value. *Healthcare Financial Management, 65*(1), 90-95.

Lee, C. (2009). The role of internet engagement in the health-knowledge gap. *Journal of Broadcasting & Electronic Media, 53*(3), 365-382. https://doi.org /10.1080/08838150903102758

Lee, J. (2012). More technology, more risks: Top hazards linked to maturing health IT market. *Modern Healthcare, 42*(45), 16-17.

Levine, R., Pickett, J., Sekhri, N., & Yadav, P. (2008). Demand forecasting for essential medical technologies. *American Journal of Law & Medicine, 34*(2/3), 225-255.

Mahoney, D. (2011). An evidence-based adoption of technology model for remote monitoring of elders' daily activities. *Ageing International, 36*(1), 66-81. https://doi.org/10.1007/s12126-010-9073-0

Wilson, P., & McEvoy, S. (2011). Health IT jumpStart: The best first step toward an IT career in health information technology. Retrieved from http://www.ebrary.com

Expectations, Policies, and Important Student Information

School/Division	Link
DeVoe School of Business Division of Liberal Arts School of Services and Leadership	View School/Division Expectations, Policies, and Student Information
School of Educational Leadership	View School/Division Expectations, Policies, and Student Information
Wesley Seminary @ IWU	View School/Division Expectations, Policies, and Student Information

School/Division	Link
Nursing - Undergraduate	View School/Division Expectations, Policies, and Student Information
Nursing - Graduate	View School/Division Expectations, Policies, and Student Information

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