

HIED 598I Syllabus, Fall 2007
Foundations and Fundamentals of Institutional Research
An On-line Course Offered by Penn State's Graduate Certificate in
Institutional Research

Course Description:

This course is an overview of the theory and practice of institutional research. Topics include: institutional research office organization, structure, and staffing; developing effective reports; working with national datasets; and understanding administrative planning, budgeting, evaluation, enrollment management, institutional effectiveness, outcomes assessment, program evaluation, faculty studies, and instructional analysis.

Overview:

This course provides students with an overview of the institutional research profession, the most common functions that institutional research offices carry out, and effective reporting techniques. This is an introductory course that acquaints students with topics that are treated in greater depth in subsequent courses. The course is designed for those entering careers in institutional research and planning, as well as for those whose work is related to analysis and reporting in other higher education settings. This is one of two required courses for the Penn State Certificate Program in Institutional Research, offered in collaboration with the Association for Institutional Research. Nevertheless, those students who are not enrolled in the Graduate Certificate in Institutional Research Program (<http://www.ed.psu.edu/cshe/ir.html>) but want to register for the course, are welcome to do so.

Course Objectives:

Upon completion of HIED 598I, students will be able to:

- Understand concepts, methodologies, research practices, and information systems that support campus decision making
- Understand the diversity of the institutional research profession, including office organization and staffing, and organizational functions and activities
- Recognize and carryout at a basic level the major Institutional Research activities including using National Datasets, Planning and Budgeting, Enrollment Management and enrollment forecasting, Faculty Studies and Instructional Analysis, Institutional Effectiveness and accreditation, Educational Effectiveness and Student Outcomes Assessment.
- Utilize SPSS software, make Powerpoint presentations, and produce effective reports on selected IR topics

Required Textbooks:

Bers, T.H. & Seybert, J.A. (1999). *Effective reporting. Resources in Institutional Research* (No. 12). Tallahassee, FL: Association for Institutional Research. ISBN 1-882393-08-2.

Howard, R. D., Ed. (2001). *Institutional research decision support in higher education, Resources in Institutional Research* (No. 13). Tallahassee, FL: Association for Institutional Research. ISBN 1-882393-09-0.

Knight, W. E., Ed. (2003). *Primer for institutional research. Resources in Institutional Research* (No. 14). Tallahassee, FL: Association for Institutional Research. ISBN 1-882393-10-4.

Volkwein, J. F., Ed. (1999). What is institutional research all about? A critical and comprehensive assessment of the profession. *New Directions for Institutional Research*, (No. 104). San Francisco: Jossey-Bass Inc., Publishers.

Unit 1 - Welcome to the Course!

This first unit gives you the opportunity to become familiar with the technology of the course, to begin to know your classmates, and to begin learning about what institutional research is all about.

Readings from Textbooks:

Volkwein, J. F. (1999). The four faces of institutional research. In What is institutional research all about? A critical and comprehensive assessment of the profession. *New Directions in Institutional Research*, No. 104. San Francisco: Jossey-Bass Inc. Volkwein, J. F. Editor's Notes, pp. 1-8.

Volkwein, J. F. (1999). The four faces of institutional research. In What is institutional research all about? A critical and comprehensive assessment of the profession. *New Directions in Institutional Research*, No. 104. San Francisco: Jossey-Bass Inc. Chapter 1. Volkwein, J. F. The four faces of institutional research, pp. 9-19.

Unit 2 - IR Office Organization, Structure, and Staffing

Upon completion of this unit, you will be able to:

- Understand the characteristics of the IR profession and its evolution.
- Understand the structure and functions of an institutional research office.
- Understand the dominant organizational tensions within colleges and universities that have an impact on IR.

Readings from Textbooks:

Knight, W. E. (2003). *The primer for institutional research*. Introduction (pp. vi-viii). Tallahassee, FL: AIR.

Terenzini, P.T. (1999) On the nature of institutional research and the knowledge and skills it requires. Chapter 2 in J.F. Volkwein (Ed), *What is institutional research all about? A critical and comprehensive assessment of the profession*. New Directions in Institutional Research, No. 104. San Francisco: Jossey -Bass Inc. Publishers (pp. 21-29).

Bagshaw, M. (1999). Teaching institutional research to the learning-inhibited institution. Chapter 7, in J.F.Volkwein (Ed), *What is institutional research all about? A critical and comprehensive*

assessment of the profession. *New Directions in Institutional Research*, No. 104. San Francisco: Jossey-Bass Inc., pp. 73-82.

Peterson, M.W. (1999). The role of institutional research: from improvement to redesign. Chapter 8. In J.F. Volkwein (Ed), What is institutional research all about? A critical and comprehensive assessment of the profession. *New Directions in Institutional Research*, No. 104. San Francisco: Jossey-Bass Inc., pp. 83-104.

Readings from Electronic Reserve:

Saupe, J. L. (1990). The functions of institutional research. 2nd ed. Available at <http://www.airweb.org/page.asp?page=85>

Unit 3 - Effective Reporting

Upon completion of this unit, you will be able to:

- Recognize the complexities involved in the reporting process.
- Distinguish the various purposes and audiences of the reports.
- Understand the variety of ways for presenting statistical information.
- Design written and oral reports on chosen IR topics.
- Recognize processes involved in creating a fact book.

Readings from Textbooks:

Bers, T.H. & Seybert, J.A. (1999). *Effective reporting. Resources in Institutional Research* (No. 12). Tallahassee, FL: Association for Institutional Research.

McLaughlin, G. & Howard, R. (2001). Theory, practice and ethics of institutional research. Chapter 6 in Howard, R.D. (Ed.), *Institutional research: Support in higher education* (pp.163-194). Tallahassee, FL. Association for Institutional Research.

Readings from Electronic Reserve:

Middaugh, J. F., Trusheim, D. W., & Bauer, K. W. (1994). Chapter 7. Some implementation strategies. In *Strategies for the practice of institutional research: Concepts, resources, and applications* (No. 9). Tallahassee, FL: Association for Institutional Research. pp. 105-107.

Unit 4 - Using National Datasets and Technology in Institutional Research

After completing this unit you will be able to:

- Explore a national Web site and get acquainted with dictionaries and sources of data.
- Review data elements and definitions in the Integrated Postsecondary Education Data System (IPEDS).
- Understand how data in existing National studies have been queried, grouped, sorted, aggregated, graphed, displayed, analyzed, and reported.
- Demonstrate an ability to use tools in ANSWERS (Accessing National Surveys with Electronic Research Sources).

Readings from Textbooks:

Massa, T. (2003). Using the web for institutional research. Chapter 7 in Knight, W. E. *The primer for institutional research*. Resources in Institutional Research, No. 14, (pp.114-122). Tallahassee, FL: Association for Institutional Research.

Milam, J. H. (2003). Using National datasets for postsecondary education research. Chapter 8 in Knight, W. E. *The primer for institutional research*. Resources in Institutional Research, No. 14, (pp. 123-149). Tallahassee, FL: Association for Institutional Research.

Unit 5 - Administrative Planning and Budgeting (Part 1): Strategic Planning

After completing this unit you will be able to:

- Understand some of the major university tensions that set the context for planning and institutional research.
- Identify the major types of peer comparison groups and methodologies.
- List the key variables that are relevant and useful for the selection of institutional peers when empirical data and statistics are important requirements for peer selection.
- Begin work on a two-week project that culminates in your presentation of a set of institutional peers.

Readings from Textbooks:

Teeter, D. J. & Brinkman, P. T. (2003). Peer institutions. In Knight, W. E. *The primer for institutional research*. Resources in Institutional Research, No. 14, (pp. 103-113). Tallahassee, FL: Association for Institutional Research.

Readings from Electronic Reserve:

Terenzini, P. T., Hartmark, L., Lorang, W. G. Jr., & Shirley, R. C. (1980). A conceptual and methodological approach to the identification of peer institutions. *Research in Higher Education*, 12(4), 347-364

Unit 6 - Administrative Planning and Budgeting (Part 2): Resource Management

Upon completion of this unit, you will be able to:

- Distinguish between strategic planning and conventional planning in higher education.
- Understand multiple cycles and modes of planning processes.
- Recognize and refer to various Planning Models in higher education.
- Understand the different levels and objects of planning.

Readings from Textbooks:

Porter, J. D., Fenske, R. H., & Keller, J.E. Planning and policy analysis, Chapter 5 in Howard, R. D., [Ed.] *Institutional research decision support in higher education* (pp. 131-162). Tallahassee, FL. Association for Institutional Research.

Readings from Electronic Reserve:

Dooris, M. J., Kelley, J. M., & Trainer, J. F. (2004). Chapter 1. Strategic planning and higher education. In M. Dooris, J. Trainer, & W. Kelley, (Eds.), *Strategic planning and institutional research. New Directions for Institutional Research* (No. 124). San Francisco: Jossey-Bass Inc., Publishers, pp.5-12. ISBN 0-7879-7792-6

Trainer, J. F. (2004). Models and tools for strategic planning. Chapter 13 in M. Dooris, J. Trainer, & W. Kelley, (Eds.), *Strategic Planning and Institutional Research. New Directions for Institutional Research* (No. 123). San Francisco: Jossey-Bass Inc., Publishers, pp.129-130. ISBN 0-7879-7792-6

Unit 7 - Administrative Planning and Budgeting (Part 3): Peer Institutions and Benchmarking

After completing this unit you will:

- Understand the relationship between planning and budgeting.
- Know the key sources of revenue and the major categories of expenditure.
- Recognize some of the key budgeting approaches and problems.

Readings from Textbooks:

Saunders, L. (2001). Resource management and quality improvement. Chapter 4 in Howard, R. D., [Ed.] *Institutional research decision support in higher education* (pp. 107-130). Tallahassee, FL: Association for Institutional Research.

Readings from Electronic Reserve:

Lasher, W. F., & Greene, D. L. (1993). College budgeting: What do we know? Do we need to know? In J. C. Smart, (Ed.), *Higher Education: Handbook of Theory and Research* (Vol. IX). NY: Agathon Press. pp. 428-469. ISBN 0-87586-109-1-CCC

Caruthers, J. K., & Wentworth, C. L. (1997). Methods and techniques of revenue forecasting. In D. T. Layzell (Ed.), *Forecasting and managing enrollment and revenue: An overview of current trends, issues, and methods. New Directions for Institutional Research*, (No. 93). San Francisco : Jossey-Bass Inc., Publishers. pp. 81-94. ISBN 0-7879-9870-8

Unit 8 - Faculty Studies, Instructional Workload and Tenure Flow

After completing this unit you will:

- Become familiar with the key issues related to faculty studies, such as faculty workload, instructional resource deployment, and curriculum coverage.
- Learn some basic skills of measurement and evaluation in faculty studies.
- Understand how faculty studies can support policy decisions.
- Demonstrate the ability to analyze a small SPSS dataset for the purpose of addressing policy problems concerning faculty workload, instructional resource deployment, and class size.

Readings from Textbooks:

Middaugh, M. F. (2001). Academic program and faculty issues, Chapter 3 in Howard, R. D., [Ed.], *Institutional research decision support in higher education* (pp. 88-106). Tallahassee, FL: Association for Institutional Research.

Middaugh, M. F. & Isaaks, H. K. (2003). Describing faculty activity and productivity for multiple audiences. Chapter 3 in Knight, W. E. [Ed.], *The Primer for institutional research* (pp. 24-47). Tallahassee, FL: Association for Institutional Research.

Readings from Electronic Reserve:

Colbeck, C. L. (2002). Integration: Evaluating faculty work as a whole. In C. L. Colbeck, (Ed.), *Evaluating faculty performance. New Directions for Institutional Research*, (No. 114). San Francisco: Jossey-Bass Inc., Publishers. pp. 43-52.

Milam, J. (1999). Using the National datasets for faculty studies: Professional File, No 70. Tallahassee, FL: Association for Institutional Research. Available online at <http://www.airweb.org/page.asp?page=73&appage=85&id=70>

McGuire, M. D. (1992). Faculty demand. In M. A. Whiteley, J. D. Porter, & R. H. Fenske (Eds.), *The primer for institutional research, Resources in Institutional Research*, (No. 7). Tallahassee, FL: Association for Institutional Research. pp. 37-72

Unit 9 - Salary Equity Studies (Optional)

After completing this unit you will be able to:

- Become familiar with the various methodological, historical, legal, research design, and managerial perspectives on faculty and non-faculty salary studies.
- Understand some of the sources of pay inequity.
- Understand some of the advantages and disadvantages of various analytical approaches.

Readings from Textbooks:

McLaughlin, G.W. & Howard, R. D. (2003). Faculty salary analyses. Chapter 4 in Knight, W. E. [Ed.] *The Primer for institutional research* (pp. 48-78). Tallahassee, FL: Association for Institutional Research.

Readings from Electronic Reserve:

Barbezat, D. A. (2002). History of pay equity studies. In R. K. Toutkoushian, (Ed.), *Conducting salary-equity studies: Alternative approaches to research. New Directions for Institutional Research*, (No. 115). San Francisco: Jossey-Bass. pp. 9-39.

Toutkoushian, R. K. (2003). Addressing gender equity in non-faculty salaries. In R. K. Toutkoushian, (Ed.), *Unresolved issues in conducting salary-equity studies. New Directions for Institutional Research*, (No. 117). San Francisco: Jossey-Bass Inc., Publishers. pp. 49-68.

Toutkoushian, R. K. & E.P. Hoffman (2002). Alternatives for measuring the Unexplained Wage Gap. Chapter Three in R. K. Toutkoushian, (Ed.). *Conducting salary-equity studies: Alternative approaches to research. New Directions for Institutional Research* (No. 115). San Francisco: Jossey-Bass. pp. 71-89. ISSN 0271-0579

Unit 10 - Management (Part 1): Admissions, Recruiting, and Retention

Upon completion of this unit, you will be able to:

- Understand the complexities of enrollment management, especially as expressed in the literature on the topic.

- Begin to integrate the knowledge obtained from the previous units, (especially Strategic Planning) with the knowledge obtained from the two units on Enrollment Management.
- Obtain hands-on experience in analyzing enrollment management data in order to address administrative problems.

Readings from Textbooks:

Kroc, R. & Hanson, G. (2001). Enrollment management and student affairs. Chapter 1 in Howard, R. D., [Ed.], *Institutional research decision support in higher education* , (pp. 1-59). Tallahassee, FL: Association for Institutional Research.

Kroc, R. & Hanson, G. (2003). Enrollment management, Chapter 5 in W.E.Knight [Ed.], *The Primer for Institutional Research*, (pp. 79-102). Tallahassee, FL. Association for Institutional Research.

Readings from Electronic Reserve:

Brinkman, Paul and McIntyre, Chuck (1997). Methods and Techniques of Enrollment Forecasting. Chapter 5 in D. T. Layzell (Ed.), *Forecasting and Managing Enrollment and Revenue. New Directions for Institutional Research*, (No. 93). San Francisco: Jossey-Bass Inc., Publishers. pp. 67-80. ISBN 0-7879-9850-8

Volkwein, J. F. & Grunig, S. D. (2005). Reputation ratings in higher education: Double, double, toil and trouble. Chapter 11 in Joseph Burke & Associates, *Achieving Accountability in Higher Education*. San Francisco: Jossey-Bass Inc., pp. 246-274.

Unit 11 - Enrollment Management (Part 2): Student Tracking and Enrollment Forecasting

Upon completion of this unit, you will:

- Understand the post-enrollment aspects of good enrollment management, especially the importance of student tracking.
- Recognize the campus components of enrollment management as interconnected systems.
- Understand the elements of the "Markov Chain" method for estimating the survival, or re-enrollment rates, for populations of continuing students.
- Recognize some of the leading persistence/retention models in higher education.

Readings from Textbooks:

Kroc, R. & Hanson, G. (2001). Enrollment management and student affairs. Chapter 1 in Howard, R. D., [Ed.] *Institutional research decision support in higher education* . ASSOCIATION FOR INSTITUTIONAL RESEARCH Resources in Institutional Research, No 13. Tallahassee, FL: AIR, pp. 1-59.

Readings from Electronic Reserve:

Brinkman, P. T., & McIntyre, C. (1997). Methods and techniques of enrollment forecasting. In D. T. Layzell (Ed.), *Forecasting and managing enrollment and revenue: An overview of current trends, issues, and methods. New Directions for Institutional Research*, (No. 93). San Francisco: Jossey-Bass Inc., Publishers. pp. 67-80.

Ewell, P. T. (1995). Working over time: The evolution of longitudinal student tracking data bases. In P. T. Ewell (Ed.), Student tracking: New techniques, new demands. *New Directions for Institutional Research*, (No. 87). San Francisco: Jossey-Bass Inc., Publishers. pp. 7-19.

Ewell, P. T. (1995). Some concluding thoughts. In P. T. Ewell (Ed.), Student tracking: New techniques, new demands. *New Directions for Institutional Research*, (No. 87). San Francisco: Jossey-Bass Inc., Publishers. pp. 93-97.

Unit 12 - Institutional Effectiveness (Part 1). Accountability, Accreditation, and Performance

Upon completion of this unit, you will:

- Understand the tensions arising within colleges and universities in regard to accountability and performance evaluation.
- Become familiar with some of the key trends in accountability and accreditation.
- Outline the essential features of effective universities and effective IR offices.
- Understand and continue to integrate knowledge obtained earlier in the course.

Reading from Textbook:

Muffo, J. (2003). Institutional research support for accountability. Chapter 1 in Knight, W. E. [Ed.], *The Primer for institutional research*, (pp.1-8). Tallahassee, FL: Association for Institutional Research.

Readings from Electronic Reserve:

Burke, J. C. (2004). Accountability reporting: With so much effort; Why so little effect. Testimony provided to the SHEEO National Commission on Accountability in Higher Education. Washington DC, May 10, 2004, published in the proceedings.

Dodd, A. H (2004). Accreditation as a catalyst for institutional effectiveness. Chapter 2 in M. Dooris, J. Trainer, & W. Kelley, (Eds.), Successful strategic planning. *New Directions for Institutional Research*, (No. 123). San Francisco: Jossey-Bass. pp. 13-25.

Middle States Commission on Higher Education (2003). Student learning assessment: Options and resources. A handbook at a glance. Available at www.msche.org under publications, guidelines for improvement.

Volkwein, J. F. (2004). Meeting minimum standards, attaining goals, and improving: A working paper on accreditation in American higher education. Penn State: University Park, Center for the Study of Higher Education. Available at http://www.ed.psu.edu/cshe/pdfs/Volk_ww2.pdf

Unit 13 - Institutional Effectiveness (Part 2). Academic Program Evaluation

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

- understand the importance of academic program evaluation and how it can be used to demonstrate goal attainment, educational quality, and institutional effectiveness;
- know the basic steps in the most common program review process and see the points at which institutional research is able to contribute;

- develop an appreciation for some of the most prominent evaluation models and program review practices implemented by institutions, state agencies, and regional or national accreditors.

Readings from Electronic Reserve:

AACU (1992). Program review and educational quality in the major: The faculty handbook. *Project on liberal learning, study-in-depth, and the arts and sciences major*. Washington, D.C.: AACU. ISBN 0-911696-53-9

Barak, R.J. and Sweeney, J.D. (1995). Academic program review in planning, budgeting, and assessment. Chapter 1 in Robert Barak & Lisa Mets (eds.), *Using Academic Program Review. New Directions for Institutional Research*, No. 86. San Francisco: Jossey-Bass Inc., pp.3-18.

Gardner, Don E. (1977). Five evaluation frameworks. *J. of Higher Ed.* 48: (Sep/Oct) 571-593.

Mets, L.A. (1995). Program Review in Academic Departments. Chapter 2 in Robert Barak & Lisa Mets (eds.), *Using Academic Program Review. New Directions for Institutional Research*, No. 86. San Francisco: Jossey-Bass Inc., pp.19-36.

Mets, L.A. (1995). Lessons learned from program review experiences. Chapter 7 in Robert Barak & Lisa Mets (eds.), *Using Academic Program Review. New Directions for Institutional Research*, No. 86. San Francisco: Jossey-Bass Inc., pp. 81-92.

Shirley, R. C., & Volkwein, J. F. (1980). Establishing academic program priorities. In S. S. Micek, (Ed.), *Integrating academic planning and budgeting in a rapidly changing environment: Process and technical issues*. Boulder, Colorado: NCHEMS. pp. 81-97.

Volkwein, J.F. (1984). Responding to financial retrenchment: lessons from the Albany experience. *Journal of Higher Education*. No. 55 (May/June): 389-401.

Other Readings

Creamer, D. G. & Janosik, S.M. (August, 1999). Academic program approval and review practices in the United States and selected foreign countries. *Educational Policy Analysis Archives*, V 7, No 23. Available at <http://epaa.asu.edu/epaa/v7n23>

Unit 14 - Institutional Effectiveness (Part 3). Assessing Student Learning Outcomes.

Upon completion of this unit, students will:

- Learn about definitional, methodological, educational, and organizational issues in assessing student outcomes
- Understand the connection between student outcomes assessment and institutional effectiveness and improvement
- Understand the connections among the WHY, WHO, WHAT, and HOW of student outcomes assessment.
- Become familiar with existing outcomes methods used by institutional researchers in their assessment practices.

Readings from Textbooks:

Bauer, K. (2003). Assessment in institutional research. Chapter 2 in Knight, W. E. The primer for institutional research. *Resources in Institutional Research*, No. 14 (pp. 9-23). Tallahassee, FL: Association for Institutional Research.

Muffo, J. (2001). Institutional effectiveness, student learning, and outcomes assessment. Chapter 2 in Howard R.D., (Ed.), *Institutional Research Decision Support in Higher Education* (pp. 60-87). Tallahassee, FL. Association for Institutional Research.

Readings from Electronic Reserve:

Borden, V. M. H. & Zak Owens, J. L. (2002). *Measuring Quality: Choosing among surveys and other assessments of college quality*. Washington, D.C.: ACE; Tallahassee: Association for Institutional Research. Available at <http://www.airweb.org/page.asp?page=94> (download pdf file).

Terenzini, P. (1989). Assessment with open eyes. *The Journal of Higher Education*, 60(6), 644-664.