HI ED 801: Foundations of Institutional Research

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. Other topics include understanding the key areas of institutional research analysis that are examined in greater depth in the other online courses: planning and budgeting, students and student services, enrollment management, assessing academic outcomes and programs, faculty workload, performance and compensation.

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 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](https://www.worldcampus.psu.edu/degrees-and-certificates/institutional-research-certificate/overview?cid=0207_PENJML7881_0208_706) but want to register for the course, are welcome to do so.

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Course Objectives

Upon completion of HIED 801, students should 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; and
* produce effective reports on selected IR topics.

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Required Course Materials

You may purchase course materials from Barnes & Noble College (the bookstore used by Penn State's World Campus). For pricing and ordering information, please see the [Barnes & Noble College website](https://bncvirtual.com/psude). Materials will be available at Barnes & Noble College approximately three weeks before the course begins. Alternatively, you may obtain these texts from other favorite bookstores. Be sure you purchase the edition/publication date listed.

E-Book Option: An online version of one or more of your texts is available at no cost as a Penn State Library E-Book. Some E-Books will only be available online, while others will be available to download in full or in part. You may choose to use the E-Book as an alternative to purchasing a physical copy of the text. You can access the E-Book by selecting the **Library Resources** link on the course navigation, and then selecting the **E-Reserves link**. For questions or issues, you can contact the [University Libraries Reserve Help](mailto:UL-RESERVESHELP@LISTS.PSU.EDU) (UL-RESERVESHELP@LISTS.PSU.EDU).

* Howard, R., McLaughlin, G., & Knight, W. (2012). *The handbook for institutional research*. San Francisco: Jossey-Bass. 978-0470609538 (E-Book Option Available)

**Using the Library**

Many of the University Library resources can be utilized from a distance. Through the Libraries website, you can

* access magazine, journal, and newspaper articles online using library databases;
* borrow materials and have them delivered to your doorstep — or even your desktop;
* get research help via e-mail, chat, or phone using the [Ask a Librarian service](https://libraries.psu.edu/ask);
* and much more.

You can view the [Online Students' Library Guide](http://guides.libraries.psu.edu/onlinestudentlibraryguide) for more information.

You must have an active Penn State Access Account to take full advantage of the Libraries' resources and services. Once you have a Penn State account, you will automatically be registered with the library within 24–48 hours. If you would like to determine whether your registration has been completed, visit the [Libraries home page](https://libraries.psu.edu/world), click on **Library Accounts**, and then click on **My Library Account**.

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Technical Requirements

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| --- | --- |
| Technical Requirements | |
| **Operating System** | Penn State's LMS, Canvas, supports most recent versions of Microsoft Windows and Apple Mac operating systems. To determine if your operating system is supported, please review the [Canvas Computer Specifications](https://community.canvaslms.com/docs/DOC-2059). |
| **Hardware** | For a list of required computer hardware specifications and internet speed, please review the [Canvas Computer Specifications](https://community.canvaslms.com/docs/DOC-2059). |
| **Browser** | Canvas supports the last two versions of every major browser release. We highly recommend updating to the newest version of whatever browser you are using. To determine if your browser is supported, please review the list of [Canvas Supported Browsers](https://community.canvaslms.com/docs/DOC-1284). Please note that due to Instructure's reduction of support for Internet Explorer, students and instructors should choose another browser to use such as Firefox, Chrome, Edge, or Safari.  **Note**: Cookies must be enabled, and pop-up blockers should be configured to permit new windows from Penn State websites. |
| **Additional Software** | All Penn State students have access to [Microsoft Office 365](https://student.worldcampus.psu.edu/a-z-index/office-365), including Microsoft Office applications such as Word, Excel, and PowerPoint.  Students will need Adobe Acrobat, available through [Adobe Creative Cloud](https://software.psu.edu/adobe-student-lic/-8319). |
| **Sound Card, Microphone, and Speakers** | Required |
| **Monitor** | Capable of at least 1024 x 768 resolution |
| **Mobile Device** | The Canvas mobile app is available for versions of iOS and Android. To determine if your device is capable of using the Canvas Mobile App, please review the [Canvas Mobile App Requirements](https://community.canvaslms.com/docs/DOC-1542). |

As a Penn State student, you have access to [LinkedIn Learning](https://linkedinlearning.psu.edu/), your one-stop shop for video tutorials on Illustrator, Dreamweaver, Photoshop, Access, Excel, PowerPoint, and countless other topics—all free to active Penn State faculty, staff, and currently enrolled students. Take tutorials to help with coursework, learn techniques for your own projects, and boost your résumé with tech skills.

If you need technical assistance at any point during the course, please contact the [HelpDesk](http://student.worldcampus.psu.edu/student-services/helpdesk" \o "HelpDesk home page" \t "_blank).

For registration, advising, disability services, help with materials, exams, general problem solving, visit [World Campus Student Services](http://student.worldcampus.psu.edu/student-services)!

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Course Requirements and Grading

While this course is asynchronous, your instructor may schedule synchronous sessions periodically throughout the course. Student and instructor feedback has indicated these sessions to be beneficial. Attendance at these sessions is highly encouraged, albeit not mandatory. If you are unable to attend a session due to work or time zone conflicts, please let your instructor know. They will identify an alternate activity for you. In addition, all synchronous sessions will be recorded for later viewing. Instructors choosing to convene synchronous sessions will send announcements early in the term about dates and times for these sessions.

Assignment Table

| **Assignment** | **Points** | **Percent of Grade** |
| --- | --- | --- |
| Lesson 1: Introduction Discussion | 100 | 3 |
| Lesson 2: Current Skills & Plan for Professional Development | 100 | 5 |
| Lesson 2: Contemplation of Expert Videos Discussion | 100 | 2 |
| Lesson 3 & 4 Data Research Project | 100 | 10 |
| Lesson 4: Survey/Interview Plan | 100 | 5 |
| **Lesson 5–8 Dashboard Project (Includes:)** | . | **20 Total Percent** |
| Initial Progress Report | 100 | 3 |
| Feedback Discussion | 100 | 2 |
| Final Report | 100 | 15 |
| Lesson 6: Statistic Scenarios | 100 | 5 |
| Lesson 7: Calculating Differences Written Assignment | 100 | 5 |
| Lesson 8: Confidence Interval Written Assignment | 100 | 5 |
| **Lesson 9–12 Prediction Project (Includes:)** | . | **18 Total Percent** |
| Progress Report | 100 | 3 |
| Final Report | 100 | 15 |
| Lesson 10: Specific Applications Exercise | 100 | 5 |
| Lesson 11: Application Exercise | 100 | 5 |
| Lesson 12: Correlation Scenarios Exercise | 100 | 5 |
| Lesson 13: Presentation Analysis | 100 | 5 |
| Lesson 14: Contemplation of the Course Discussion | 100 | 2 |

Letter grades will be based on the following scale:

| **Numerical Value** | **Letter Grade** |
| --- | --- |
| 93–100 | A |
| 90–92.9 | A- |
| 87–89.9 | B+ |
| 83–86.9 | B |
| 80–82.9 | B- |
| 77–79.9 | C+ |
| 70–76.9 | C |
| 60–69.9 | D |
| Below 60 | F |

Late policy:

Each assignment is graded on an 100-point scale. Any assignment that is submitted late is penalized by three points if submitted late by one day and 1.5 points for each additional day of lateness within the full week, so that an assignment that is submitted one week late has a 12-point deduction. Each additional week of lateness leads to another 6-point reduction. Two exemptions exist for this policy: (a) each student will not be penalized for the first assignment that is submitted late by one day, and (b) if a student finds that an unexpected circumstance prevents him or her from completed an assignment on time, the student should inform the instructor of the situation ASAP (i.e., well before the due date) and request an alternative due date. We recognize that students have personal and professional lives that sometimes contain unanticipated challenges, and we wish to make reasonable accommodate those challenges while still enforcing due dates that encourage students to not fall behind in class.

Please refer to the [University Grading Policy for Undergraduate Courses](https://courses.worldcampus.psu.edu/public/ID/shared/undergrad_grading_policy.html) for additional information about University grading policies.

If, for reasons beyond the student's control, a student is prevented from completing a course within the prescribed time, the grade in that course may be deferred with the concurrence of the instructor. The symbol DF appears on the student's transcript until the course has been completed. Non-emergency permission for filing a deferred grade must be requested by the student before the beginning of the final examination period. In an emergency situation, an instructor can approve a deferred grade after the final exam period has started. Under emergency conditions during which the instructor is unavailable, authorization is required from one of the following: the dean of the college in which the candidate is enrolled; the executive director of the Division of Undergraduate Studies if the student is enrolled in that division or is a provisional student; or the campus chancellor of the student's associated Penn State campus.  
  
For additional information please refer to the [Deferring a Grade](http://student.worldcampus.psu.edu/a-z-index/deferring-a-grade) page.

Course Schedule

**Note**: All due dates reflect North American eastern time (ET).

The schedule below outlines the topics we will be covering in this course, along with the associated time frames and assignments.

* **Course begins:**January 13, 2020
* **Course ends:**May 01, 2020
* **Course length:**15 weeks

**Note:** Required readings are listed in the course schedule below. Optional readings are included in the road map with each lesson.

Lesson 1

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| Lesson 1 | |
| ***Time frame:*** | January 13 - January 19, 2020 |
| ***Readings:*** | * Orientation Material |
| ***Assignments:*** | * Introduction Discussion |

​Lesson 2

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| Lesson 1 | |
| ***Time frame:*** | January 20 - January 26, 2020 |
| ***Readings:*** | * Textbook   + Chapters 2, 3, and 5 |
| ***Assignments:*** | * Current Skills and Plan for Professional Development Written Assignment * Contemplation of Expert Videos Discussion |

Lesson 3

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| Lesson 3 | |
| ***Time frame:*** | January 27 - February 02, 2020 |
| ***Readings:*** | * E-Reserves   + Krathwohl, D. (2009). *Methods of educational and social science research*. Long Grove, IL: Waveland. [Creating research problems (pp. 84-89) |
| ***Assignments:*** | * Begin Data Research Report Written Assignment (Due in Lesson 4) |

​Lesson 4

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| Lesson 3 | |
| ***Time frame:*** | February 03 - February 09, 2020 |
| ***Readings:*** | * E-Reserves   + Krathwohl, D. (2009).  *Methods of educational and social science research*. Long Grove, IL: Waveland.     - Qualitative research methods (pp. 236-240).     - Interviewing (pp. 295-302)     - Survey research and questionnaires (pp. 567-593)   + Trosset, C. (2007). Qualitative research methods for institutional researchers. In R. Howard (Ed.) *Using mixed methods in institutional research*. (pp. 9-21). Tallahassee, FL: AIR. |
| ***Assignments:*** | * Survey/Interview Planning Written Assignment * Data Research Report Written Assignment |

​Lesson 5

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| Lesson 5 | |
| ***Time frame:*** | February 10 - February 16, 2020 |
| ***Readings:*** | * Textbook   + Chapters 35 and 36 |
| ***Assignments:*** | * Benchmark/Dashboard Project Initial Progress Report |

Lesson 6

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| Lesson 6 | |
| ***Time frame:*** | February 17 - February 23, 2020 |
| ***Readings:*** | * None |
| ***Assignments:*** | * Statistic Scenarios Written Assignment * Benchmark/Dashboard Project Feedback Discussion * Continue working on your Benchmark/Dashboard Project |

Lesson 7

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| Lesson 7 | |
| ***Time frame:*** | February 24 - March 08, 2020(**NOTE: This is a two week lesson.**) |
| ***Readings:*** | * None |
| ***Assignments:*** | * Continue Benchmark/Dashboard Project * Hypothesis Testing Written Assignment |

Spring Break

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| Semester Break | |
| ***Time frame:*** | March 09 - March 15, 2020 |
| ***Readings:*** | * None |
| ***Assignments:*** | * None |

Lesson 8

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| Lesson 8 | |
| ***Time frame:*** | March 16 - March 22, 2020 |
| ***Readings:*** | * E-Reserves   + Kahneman, D. (2011). *Thinking, fast & slow*. Farrar, Strauss, & Giroux: New York. [Chapter 10 (pp. 109-118): The law of small numbers.] |
| ***Assignments:*** | * Complete and submit your Benchmark/Dashboard Project * Application Exercise Written Assignment |

Lesson 9

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| Lesson 9 | |
| ***Time frame:*** | March 23 - March 29, 2020 |
| ***Readings:*** | * E-Reserves   + Kahneman, D. (2011). *Thinking, fast & slow*. Farrar, Strauss, & Giroux: New York. [Chapter 21 (pp. 222-233): Intuitions vs. formulas.]   + Silver, N. (2012). *The signal and the noise: Why so many predictions fail - but some don’t*. Penguin: New York. [Chapter 2 (pp. 47-73): Are you smarter than a television pundit?] |
| ***Assignments:*** | * Begin work on Prediction Project * Prediction Project Exploration Discussion |

Lesson 10

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| Lesson 10 | |
| ***Time frame:*** | March 30 - April 05, 2020 |
| ***Readings:*** | * None |
| ***Assignments:*** | * Projection Project - Progress Report * Introductory Predictions Assignment |

Lesson 11

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| Lesson 11 | |
| ***Time frame:*** | April 06 - April 12, 2020 |
| ***Readings:*** | * None |
| ***Assignments:*** | * Continue your Prediction Project * Prediction Scenario Assignment |

Lesson 12

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| Lesson 12 | |
| ***Time frame:*** | April 13 - April 19, 2020 |
| ***Readings:*** | * None |
| ***Assignments:*** | * Correlation Scenarios Written Assignment |

Lesson 13

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| Lesson 13 | |
| ***Time frame:*** | April 20 - April 26, 2020 |
| ***Readings:*** | * Textbook   + Chapter 33 * E-Reserves   + Tufte, E. (1997). Visual explanations: Images and quantities, evidence and narrative. [Chapter 2: Visual and statistical thinking: Displays of evidence for making decisions. Section: The decision to launch the space shuttle challenger (pp. 38-53).] * Other Readings   + Wainer, H. (1984). [How to display data badly](http://www.jstor.org/stable/2683253). The American Statistician, 38(2), 137-147. |
| ***Assignments:*** | * Presentation Analysis Written Assignment |

Lesson 14

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| Lesson 14 | |
| ***Time frame:*** | April 27 - May 01, 2020 |
| ***Readings:*** | * None |
| ***Assignments:*** | * Complete and submit Prediction Project Final Report * Contemplation of Course Discussion |

Note: If you are planning to graduate this semester, please communicate your intent to graduate to your instructor. This will alert your instructor to the need to submit your final grade in time to meet the published graduation deadlines. For more information about graduation policies and deadlines, please go to the [Graduation Information](http://student.worldcampus.psu.edu/courses/graduation) on the My Penn State Online Student Portal.

Formal instruction will end on the last day of class. Provided that you have an active Penn State Access Account user ID and password, you will continue to be able to access the course materials for one year, starting from the end date of the academic semester in which the course was offered (with the exception of library reserves and other external resources that may have a shorter archival period). After one year, you might be able to access the course based on the policies of the program or department offering the course material, up to a maximum of three years from the end date of the academic semester in which the course was offered. For more information, please review the [University Course Archival Policy](https://canvas.psu.edu/2019/08/20/canvas-archive-policy-for-lionpath-courses/).