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Doctor of Philosophy in Assessment and Measurement Student Handbook

Introduction

Welcome to James Madison University

Welcome to the Assessment and Measurement Program at James Madison University. You are about to engage in a series of academic and applied experiences requiring a great deal of personal responsibility. A large segment of your graduate experience will take place outside the traditional classroom setting, and much of the quality of your training will depend on your level of initiative and commitment. To assist you in your graduate career, we have prepared this handbook describing many of the rules, requirements, policies, and documents relevant to the Ph.D. Program in Assessment and Measurement at JMU.

The Center for Assessment and Research Studies

The Assessment and Measurement program is affiliated with the Center for Assessment and Research Studies (CARS).

CARS Mission

The mission of the Center for Assessment and Research Studies (CARS) at James Madison University is to provide quality assessment service to the university, to provide applied graduate training in both assessment and measurement, to increase the use of innovative technology in assessment practice, to increase the rigor of measurement and statistical techniques used in assessment practice, and to produce quality scholarship in assessment and measurement.

CARS Vision

To be nationally recognized as a standard of excellence for practice, programs, and scholarship in assessment and measurement.

By whom do we want to be recognized?

Specifically, we want to be nationally recognized as a standard of excellence for practice, programs, and scholarship in assessment by higher education institutions and the scholarly communities associated with assessment, measurement and educational statistics.

What do we mean by “practice”?

The use of the word “practice” in our vision is meant to describe the assessment service and measurement consultation provided by our faculty, current students and graduates to constituents in both higher education and in K-12 education. We would also like to be recognized, although to a lesser extent, for our assessment service and measurement consultation in the business sector and in non-profit organizations.

What do we mean by “programs”?

We strive for our graduate programs in Assessment and Measurement (M.A., Ph.D.) to be nationally recognized for their: unique focus in both assessment and measurement, excellence in teaching, focus on sophisticated measurement and statistical techniques as well as innovative technology, and union of applied practice with graduate study.

What do we mean by “scholarship”?

We also hope to be recognized for the quality scholarship in assessment, measurement and educational statistics provided by our faculty and students through their publications, presentations, and editorial or grant activities.

Additional information pertaining to the Center for Assessment and Research Studies can be accessed by visiting its home page (<http://www.jmu.edu/assessment>).

Doctoral Study in Assessment and Measurement at JMU

The Doctor of Philosophy Program in Assessment and Measurement was designed to meet the expanding accountability, quality assurance, and outcome assessment needs of the 21st century. Graduates will be prepared for employment as assessment, evaluation, and measurement specialists in education, health care, business, government, and other related settings. The program emphasizes real world applications, and experiential research projects are integrated throughout the program.

The graduate program in Assessment and Measurement is the first program of its kind in the country. The need for training in higher education assessment has been enhanced both by the increasing demands on higher education institutions for accountability in the western countries and by the lack of trained individuals in these areas. Moreover, studies conducted by both the American Psychological Association and the American Educational Research Association have shown an increased demand for graduates with quantitative, computing, and communication skills. The JMU program also serves the education needs for current assessment coordinators and faculty in the US.

The focus of the assessment training in the Ph.D. program is on the empirical analysis of aggregate data, as opposed to other aspects of psychological assessment. Students are not trained to perform psychological assessment of individuals for clinical diagnostic or therapeutic purposes, as training in this concentration revolves around the design and improvement of methods to measure program effectiveness. Moreover, with the extensive background in measurement theory provided, the graduates of this Ph.D. program are trained as experts in assessment, enabling them to enter the field equipped with a knowledge base that extends far beyond the pragmatic aspects of implementing assessment strategies.

Although the program is focused primarily on the higher education market, secondary emphases are under exploration for graduates who would enter the business world and school districts. Graduates are prepared to serve a growing need within the business community that is evidenced by the following: the assessment center concept started at AT&T; the increasing popularity of for-profit educational institutions such as the University of Phoenix; and the expansion of for-profit ventures of the corporate world into education. In the future, student competency in learning will probably be certified at assessment centers, which may or may not be associated with a single university. By having a model center with a training function, JMU can position itself to be a major force in how learning will be assessed.

Training Philosophy

The Ph.D. Program in Assessment and Measurement adheres to a practitioner-scientist, applied model of graduate training, built on a solid theoretical base in scientific psychology. The program integrates selected, major pedagogical foundations of psychology and assessment and applied experience. The training model is further

designed to capitalize on the previous educational and professional experiences and training of incoming students to further expand, strengthen, and supplement these skills.

Research Opportunities for Students

Students will be involved in numerous applied assessment projects in the Center for Assessment and Research Studies. These projects will provide a multitude of data that may be used in both research studies and student dissertations. In addition, there will be opportunities for students to become involved in faculty research projects. Such projects often lead to publications and/or presentations at professional conferences.

Expected Proficiencies of Incoming Students

As with any graduate program, students accepted into JMU's Ph.D. program are expected to have certain academic proficiencies. Specifically, incoming students should have successfully completed (a) an intermediate-level statistical methods course, (b) at least one prior course in measurement and (c) an empirically-based assessment or evaluation project. Applicants to the program who do not have the expected proficiencies, however, may be accepted on a conditional basis, with designated deficiencies that must be removed by the student prior to being granted unconditional status.

In addition to the expectation that each student will have certain academic proficiencies, certain technological proficiencies are also expected. Computers and various software packages are an integral part of the majority of class assignments and are also used by students who have a graduate assistantship within CARS. Incoming students should be comfortable navigating in a Windows environment and using Microsoft Office (Word, Excel, and Access) and SPSS and SAS. If after arrival at JMU a student realizes that additional proficiency is needed in a specific area, the student is responsible for obtaining the needed skill in a timely manner so academic and/or assistantship progress is not impeded. All students will enroll in PSYC 604 (Data Management and Analysis) during the first semester to gain additional SPSS and SAS skills. As new software packages are introduced through course work, some class instruction will be provided on their use, but students will also be expected to use the software training tools that have been made available to them to master the required software.

Core Program Faculty

The Doctoral program faculty is composed of doctoral-level professionals with diverse disciplinary affiliations.

Christine DeMars, Assistant Professor of Graduate Psychology (Ph.D., Michigan State University).

- Interests include technical and practical issues in large-scale testing and applications of IRT (including DIF, equating, and multidimensional IRT models).

T. Dary Erwin, Professor of Graduate Psychology (Ph.D., University of Iowa, Concentrations: Measurement and Statistics, Assessment and Public Policy.)

- Associate Vice President of Academic Affairs for Assessment and Program Evaluation
- Research interests in assessment and public policy

Sara J. Finney, Assistant Professor of Graduate Psychology (Ph.D., University of Nebraska, Concentration: Quantitative and Qualitative Methods in Education)

- Research interests include practical issues in structural equation modeling, instrument development, and validity.

Christine Harmes, Assistant Professor of Graduate Psychology (Ph.D., University of South Florida, Concentrations: Educational Measurement & Evaluation and Instructional Technology)

- Research interests include computer-based testing, innovative item design and development, usability testing, and item response theory.

J. Patrick Meyer, Assistant Professor of Graduate Psychology (Ph.D. University of South Carolina, Concentration: Educational Psychology and Research).

- Research interests include statistical analysis of mixed groups, IRT based item mapping, and Bayesian and nonparametric approaches to differential item functioning.

Dena A. Pastor, Assistant Professor of Graduate Psychology (Ph.D., University of Texas at Austin, Concentration: Educational Psychology/Measurement and Statistics).

- Research interests include multilevel modeling, item response theory, examinee motivation and achievement goal orientation.

Donna L. Sundre, Professor of Graduate Psychology (Ed.D., University of North Carolina at Greensboro).

- Executive Director of the Center for Assessment and Research Studies
- Director of the Assessment and Measurement Ph.D. Program
- Research and applied practice has primarily focused on validity, construct development, program evaluation, and the motivation of examinees in different testing conditions

Steven L. Wise, Professor of Graduate Psychology (Ph.D., University of Illinois at Urbana-Champaign, Concentrations: Educational Psychology, Measurement and Statistics).

- Research expertise in item response theory, computer-based testing, and the effects of individual personality and attitudinal factors on test performance.

Other Program Faculty

Several additional faculty members are members of Assessment and Measurement Ph.D. program committee. They hold appointments with the Department of Psychology or the Department of Graduate Psychology or University administrative positions.

Alfred J. Menard, Associate Professor of Psychology (Ed. D., University of Arizona).

Sheena Rogers, Associate Professor of Graduate Psychology (Ph.D., Royal College of Art, London).

Richard F. West, Professor of Psychology (Ph.D., University of Michigan).

Foundation Course Faculty

Though the instructors of the foundation courses vary, the following faculty frequently teach foundation courses:

Kenn E. Baron, Assistant Professor of Psychology (Ph.D., University of Wisconsin).
[Advanced Social Psychology]

Arnold S. Kahn, Professor of Psychology (Ph.D., Southern Illinois University).
[Advanced Social Psychology]

Richard F. West, Professor of Psychology (Ph.D., University of Michigan). [Advanced Cognitive Psychology, Cognitive Development]

Academic Honesty

The academic program at JMU operates under an honor system dating back to 1909. JMU students adopted the present honor system to uphold individual and community integrity. Each student is expected to observe complete honesty in all academic matters and to assume responsibility in cases in which honor is violated. The honor system has an appreciation for the fact that varying punishments should be applied for varying offenses. Penalties for honor system violations range from a minimum of a reduced or failing grade to permanent expulsion from the university. A student Honor Council oversees the honor system at JMU, and every student who matriculates at the university, whether graduate or undergraduate, becomes a member of the honor system. Faculty and administrators are also expected to cooperate.

The James Madison University Honor Code is detailed below. More information pertaining to the university honor system can be obtained by consulting the Student Handbook or by contacting the Honor Council Office in Taylor Hall

Honor Code:

Students shall observe complete honesty in all academic matters. Violations of the Honor Code include, but are not limited to, taking or attempting to take any of the following actions:

1. Using unauthorized materials or receiving unauthorized assistance during an examination or in connection with any work done for academic credit.
Unauthorized materials may include, but are not limited to, notes, textbooks, previous examinations, exhibits, experiments, papers or other supplementary items.
2. Giving false or misleading information regarding an academic matter.
3. Copying information from another student during an examination.
4. Rendering unauthorized assistance to another student by knowingly permitting him or her to see or copy all or a portion of an examination or any work to be submitted for academic credit.
5. Obtaining prior knowledge of examination materials (including by using copies of previously given examinations obtained from files maintained by various groups and organizations) in an unauthorized manner.
6. Selling or giving to another student unauthorized copies of any portion of an examination.
7. Using a commercially prepared paper or research project or submitting for academic credit any work completed by someone else.

8. Falsifying or attempting to falsify class attendance records for oneself, or for someone else, or having another falsify attendance records on your behalf.
9. Falsifying material relating to course registration or grades, either for oneself or for someone else.
10. Falsifying reasons why a student did not attend a required class or take a scheduled examination.
11. Taking an examination in the place of another student.
12. Making unauthorized changes in any reported grade or on an official academic report form.
13. Falsifying scientific or other data submitted for academic credit.
14. Collaborating in an unauthorized manner with one or more other students on an examination or any work submitted for academic credit.
15. Committing the act of plagiarism – the deliberate copying, writing or presenting as one's own the information, ideas or phrasing of another person without proper acknowledgement of the true source.
16. Using computing facilities or library resources in an academically dishonest manner.
17. Falsifying evidence, or intimidating or influencing someone in connection with an honor violation investigation, hearing or appeal.

All students should ask their instructors to clarify what types of conduct are authorized or unauthorized in each course.

Graduate Assistantships

- 1) A limited number of assistantships are available through the Center for Assessment and Research Studies (CARS). The Assessment and Measurement faculty will attempt to place each student in a graduate assistantship (GA), including those available outside CARS. An offer of admission does *not* constitute a guarantee of assistantship placement.
- 2) CARS GAs will be evaluated annually. Contracts expire at the end of June each year and may be renewed. Students must re-apply for assistantships each year.
- 3) The CARS doctoral GA pays for up to 27 credit hours per year. This number can be distributed in various ways across the academic sessions. During the fall and spring semesters, students must take at least nine credit hours, unless the Graduate School grants special approval. According to Graduate School policy, GAs who drop courses after the tuition refund date will be held financially responsible for fees. In addition, the CARS GA carries the expectation that students will enroll in courses each summer.
- 4) Each GA is expected to work 20 hours per week. Students will set their own hours with the approval of their supervisor(s). GAs should post their hours and should inform Sharon Sipe, as well as their supervisor(s) of their schedules.
- 5) Holidays off are determined by the administrative calendar, not the academic calendar. That is, students are expected to work their scheduled hours when JMU is open, regardless of whether or not classes are in session (e.g., spring break, winter holiday). When the university closes for a holiday or weather emergencies, GAs may reduce working hours for the week by four hours for each day the university is closed. In addition to normal JMU administrative holidays, additional time off will be provided according to the following formula:

Start date of June 25: 4 weeks off
Start between June 26 and July 25: 3.5 weeks off
Start between July 26 and August 25: 3 weeks off
Vacation time is to be taken within the fiscal year (July 1 to June 30).
- 6) More detailed information about GA skills and responsibilities may be found in the GA training manual.

Some Academic Policies

- 1) All students, regardless of GA status, should feel welcome to express interest in faculty members' projects and research. Every attempt will be made to accommodate students' interests and help them to be involved in projects.
- 2) Students are expected to complete all coursework during the semester in which the course is taught. Grades of incomplete may be given under extenuating circumstances, and the student must initiate such requests. If such arrangements are not in place, the student will be awarded the appropriate grade given the amount of work completed.
- 3) Per graduate school policy, a student will be dismissed from the program if the student receives an "F," "U," or three "C" grades in any graduate courses or two "C" grades in core courses. The student will be placed on probationary warning upon receiving a grade of "C" in any core course or if the student's grade point average falls below 3.0. Core courses are PSYC 770, 812, 814, 816, 830, 832, 834, 836, 825, and 855. A grade of "B" or better is required in PSYC 606 and 608 (and 604/605 if enrolled).
- 4) Submission of a single paper to fulfill requirements of more than one course will be considered a violation of the honor code, unless prior approval from both (or all) involved instructors is obtained. However, writing multiple papers on a single topic or that extend a previous topic is encouraged. It is the student's responsibility to make clear to each instructor what work has been done in fulfillment of the requirements of that class.
- 5) CARS houses a great deal of data relating to its many assessment projects. One or more faculty members supervise all projects. These data may be accessible to students for coursework and dissertations, but only with the permission of the faculty member(s) supervising the project. In addition, students may distribute their findings outside CARS only under the supervision of the faculty member(s) leading the project, and with the knowledge of the course instructor or dissertation chair, if applicable. In addition, all students using such data are responsible for following the guidelines contained in the Data Security Procedures Guidelines.
- 6) Students are responsible for knowing and following the academic policies contained in the Graduate Catalog.

The Ph.D. Program of Study

Students in the Doctor of Philosophy Program in Assessment and Measurement are subject to the policies, regulations, and procedures of the JMU Graduate College. Detailed information regarding these rules is found in the JMU graduate catalog. Questions about this information may be directed to your academic advisor or the Graduate College (568-6131)

General Description of the Program of Study

Course work in the doctoral program covers a broad range of areas including the history of assessment and public policy, student development and learning, general measurement and statistics, performance assessment and generalizability theory, structural equation modeling, item response theory, instrument design, and hierarchical linear models. Further, students have the opportunity to gain expertise with software for information retrieval from extensive databases, for test development and item analysis/banking purposes, for web development and testing, and for statistical analyses. Opportunities for involvement in computer-based testing will be provided as well. Doctoral students are involved in ongoing applied institutional assessment projects at the Center, and extensive training and experience is acquired through practica and internship experiences in a variety of educational, human service, and business contexts. Detailed lists of the program objectives are located in the Course Descriptions and Objectives section of this handbook.

The Ph.D. Program consists of at least 57 credit hours. This includes 36 hours of required program coursework and 21 hours of research experience (both practica and internship) and dissertation. In addition, most students will take at least some of the 12 hours of psychology foundations. An overview of the program of study, as well as detailed descriptions of objectives for many of the courses is contained later in this section of the handbook.

Beginning the Program

Each new student will be assigned an initial advisor, who will help the student to identify the courses to be taken during the first semester of the student's program. By the end of the second semester of the program, the student should, with the help of his or her advisor, develop the plan for the student's doctoral program. The Individual Doctoral Plan of Study (IDPS) form (a copy of which is included in this handbook) should then be completed and submitted to the program coordinator. Each student's program of study is individualized to meet his or her unique professional goals through the student's choice of electives and through practicum, internship, and dissertation experiences.

In the event that the program requirements, as listed in the Graduate Catalog, change during the student's period of enrollment in the program, students have the following options: (a) they may complete the program requirements that were in effect under the Graduate Catalog that was current during the semester in which they entered the program, or (b) they may complete the program requirements that were enacted in a

later version of the Graduate Catalog. However, students should not mix requirements derived from more than one catalog.

Transfer of Credit/Waiving of Course Requirements

At the beginning of a student's program, there often will be questions concerning whether the student has previous graduate courses covering material that is sufficiently equivalent to a required Ph.D. course to warrant waiving that course requirement. Judgment regarding whether to recommend to the Graduate School acceptance of the transfer of credit (and thereby waiving a required course) will be made jointly by the program coordinator and the program faculty who typically teach that particular course. The judgment criteria will include (1) course material provided by the student (i.e., syllabus, texts, course objectives, exams, etc.), (2) student performance in the previous course (must be a "B" or higher), and (3) how long ago the previous course was taken (no more than six years). In addition, the program coordinator and/or program faculty may choose to assess the student's competency over the course material—either orally or using a written examination.

The transfer policy applies differently to the different types of courses as follows: Assessment/measurement courses (excluding electives): A maximum of nine hours of transfer credit may be considered for inclusion in the student's program of study. *If the course has been applied to another graduate degree*, credit is not granted, but the requirement is waived and the student substitutes another course. Requests for acceptance of transfer of credit must occur during the student's first semester of enrollment.

Foundations in psychology: The decision to accept prior coursework is made by the advisor in consultation with other faculty as above. If the student is deemed to have met the objectives of the course, the course is simply waived and no course substitution is required. The waiver is noted on the program of study; no formal application to the Graduate School is required.

Research experiences and electives: Cannot normally be waived.

Acceptance of the Plan of Study

Once the student has completed his or her IDPS form, it is signed by the advisor and submitted to the program coordinator for approval. This form will be kept on file at the Center for Assessment and Research Studies until the semester the student will graduate.

Changes to the Plan of Study

Modifications of a student's program of study can be made, subject to the approval of the student's advisor and the program coordinator.

Program of Study Overview

The Doctoral of Philosophy program in Assessment and Measurement consists of at least 57 hours, plus foundation courses, distributed as follows:

Foundations in Psychology Courses:

605: Research and Inferential Statistics	3
606: Measurement Theory	3
Choose 2 of the following 4 courses: 613: Cognitive Psychology 616: Social Psychology 619: Cognitive Development 646: The American College Student	6

total **12**

Required Program Courses:

604: Data Management	3
608 Multivariate Statistics	3
770: Assessment & Public Policy	3
812: Assessment Methods & Instrument Design	3
814: Performance Assessment	3
816: Classical test theory and G-theory (new course #)	3
855: Assessment Consultation & Practice	3
Choose at least 2 of the following 4 courses (courses in this list, beyond the required 2, may also be used as electives): 830: Structural Equation Modeling 832: Item Response Theory 834: Computers & Testing 836: Hierarchical linear models	6
825: Doctoral Seminar in Professional Psychology (total of 3 credits over the course of study)	3
Approved Electives	9

total **39**

Required Research Experiences:

879: Doctoral Assessment Practicum ¹	3
891: Doctoral Assessment Internship	6
900: Doctoral Dissertation	9

total **18**

¹ Students who do not have an assistantship at CARS will be required to complete an additional 3-credit practicum experience as one of their electives.

Another required experience is the Psychology Symposium. The Department of Graduate Psychology hosts this conference each April; all students are expected to attend each year and to present at least once in the 1st or 2nd year of study.

Possible schedule **if** student has **no** foundations courses:

<u>1st year</u>		
Fall (10 hours, 7 count towards required 57)	Spring (9 hours, 3 or 6 count towards required 57)	Summer (7 hours)
604 data management 605 inferential statistics 770 Policy 825 seminar	606 measurement theory 608 multivariate 613 (cognitive) or elective	practicum 814 performance assessment 825 seminar
<u>2nd year</u>		
Fall (9 hours, 6 or 9 count towards required 57)	Spring (10 hours, 7 or 10 count towards required 57)	Summer (6 hours)
812 instrument design 830 or 832, SEM or IRT	816 G-theory 834 or 836 computers & testing or HLM 613 (cognitive) or elective	855 consultation elective
616 (social psychology) or 619 (cog. Develop) or 646 (Am. College student) or elective	825 seminar	
<u>3rd year</u>		
Fall (9 hours)	Spring (9 hours)	
dissertation internship elective	dissertation (6 hours) internship	

This schedule assumes that 613, 616, 619, and 646 will not be offered in the summer. If any of these courses are offered, they could be taken in place of the elective.



The courses in the gray-shaded block can be configured in several ways. The 4 courses (12 credit hours) in this time block will typically include 2 of the following 4 courses: 830, 832, 834, 836; plus 1 of the following 3: 613, 619, 646, plus 1 elective (the elective may be an additional course from 830/832/834/836). Or if a student did not take one of the foundations in the spring of the 1st year, then 2 foundations could be taken in this block.

Tentative Assessment Ph.D. Course Rotation (subject to change)

<u>Fall</u>
604 (Computer-Assisted Data Management and Analysis)
605 (Research & Inferential Statistics)
770 (Assessment & Public Policy)
830 (Structural Equation Modeling)
812 (Assessment methods)
832 (Item Response Theory)
825 (1 cr. Doctoral Seminar)
891 (Internship)
special topics: non-parametric (every 2 years?)
619 Cognitive Development (schedule could change)
646 American College Student (schedule could change)
616 Social Psychology (schedule could change)
<u>Spring</u>
606 (Measurement Theory)
608 (Multivariate Statistics)
816 (CTT & G theory)
834 (Computers & Testing)
836 (HLM)
840 (Qualitative Research Design and Analysis) – every 2 years ?
891 (Internship)
825 (1 cr. Doctoral Seminar)
613 Cognitive (schedule could change)
<u>Summer</u>
855 (Assessment Consultation)
879 (Practicum)
825 (1 cr. Doctoral Seminar)
814 (Performance Assessment)
special topics: Advanced IRT (only on request – might be Spring instead)
special topics: Issues in K-12 assessment (every 2 years?)

Individual Doctoral Plan of Study
PhD In Assessment and Measurement

INDIVIDUAL DOCTORAL PLAN OF STUDY FOR: _____

DATE: _____ **ADVISOR:** _____

The following plan represents an agreed upon curriculum of courses and field experiences, the completion of which will satisfy the course work portion of the degree requirements for the Ph.D. Program in Assessment and Measurement. A particular student's program consists of all courses listed in Assessment and Measurement Courses, Research Experiences, and Electives, as well as any Foundations in Psychology courses not previously completed. Any modifications must be approved by the student's Advisor and the Program Coordinator.

COURSE NUMBER AND TITLE	CREDIT HOURS	YEAR/SEMESTER COMPLETED	GRADE
Transferred Credits			
Foundations in Psychology Courses			
605: Research and Inferential Statistics	3		
606: Measurement Theory	3		
Choose 2 of the following 4 courses: 613: Cognitive Psychology 616: Social Psychology 619: Cognitive Development 646: The American College Student	6		
Required Assessment and Measurement Courses			
604: Data Management	3		
608 Multivariate Statistics	3		
770: Assessment & Public Policy	3		
812: Assessment Methods & Instrument Design	3		
814: Performance Assessment	3		
816: Classical test theory and G-theory (new course #)	3		
855: Assessment Consultation & Practice	3		
Choose at least 2 of the following 4 courses: 830: Structural Equation Modeling 832: Item Response Theory 834: Computers & Testing 836: Hierarchical linear models	6		
825: Doctoral Seminar in Professional Psychology (total of 3 credits over the course of study)	3		

COURSE NUMBER AND TITLE	CREDIT HOURS	YEAR/SEMESTER COMPLETED	GRADE
Electives: (At least 9 hours)			
Required Research Experiences:			
PSYC 879. Doctoral Assessment Practicum ¹	3		
PSYC 891. Doctoral Assessment Internship	6		
PSYC 900. Doctoral Dissertation	9		
Total Number of Hours in Program			

¹ Students who do not have an assistantship at CARS will be required to complete an additional 3-credit practicum experience as one of their electives.

The signatures below confirm the student's Individual Doctoral Plan of Study:

Graduate Student _____

Date _____

Program Advisor _____

Date _____

Program Coordinator _____

Date _____

Course Descriptions and Objectives

Psychology Foundations:

- Define and describe the scope of the discipline of psychology, the history of the field, and the diversity in what psychologists do.
- Define and use basic psychological terminology.
- Identify major leaders in the field of psychology and describe their work.
- Identify major psychological principles and theories in each of the primary domains of psychology (e.g., cognitive, social, developmental).
- Describe an example of the integration of biological, social, and psychological factors in determining a particular form of human behavior such as intelligence.
- Provide examples of species-specific human behavior.
- Provide examples of individual differences in human behavior, including:
 - Differences in Beliefs
 - Cross Cultural Differences
 - Gender Differences
 - Genetic Differences
- Describe how psychological evidence is acquired through the use of the scientific method.
- Use evidence derived from application of the scientific method to develop informed opinions about psychological phenomena and behavior.
- Delineate the psychological dimensions of health (well-being). Identify and describe the influences of heredity, lifestyle, and environment on individual health.
- Recognize moral and ethical issues as they relate to psychology.

Technology Competencies

- Create a web document that contains textual, tabular, graphical, and pictorial elements. Create relative and absolute links.
- Compose a document (using word processing software) that includes text, a table or graph, and an illustration (graphic).
- Create a simple slide show and make a presentation using the following elements: title, outline of points, a set of slides developing the points, and one or more appropriate graphics incorporated into the slides.
- Create a spreadsheet by importing or entering data. Demonstrate the use of formulas, functions, and charts.
- Use SAS and SPSS to read, clean, manage, and organize data. Apply a variety of appropriate descriptive and inferential statistical procedures, and use the output to write reports. Use more specialized software as necessary for coursework.
- Utilize operating system commands (mainframe or PC) as necessary to use software. Edit, delete, copy, move, and rename files, use directories, invoke software programs, scan output for de-bugging.

- Use multiple computing environments (such as e-mail, listservs, news readers, and webboards) to communicate interactively both locally and globally.
- Use FTP to transfer a file from a PC to another computer and from another computer to a PC.
- Convert a file to ASCII format in order to move it to another application or computer.
- Classify the uses of an institutional computer database for student information and list offices that might be linked with this database.
- Discriminate among type of files: txt, gif, jpg, doc, htm, .xls, .pdf.
- Formulate and conduct an effective information search strategy that includes a variety of appropriate reference sources, such as library catalogs, indexes (including PsycInfo, ERIC), bibliographies, statistics sources, government publications, encyclopedias, and resources available on the Internet. Employ citation searching techniques, including tracking down references at the end of an article or book and using a citation index to find sources that cite a known article.
- Identify major electronic reference services and collections for assessment, psychology, and related fields and know where they are located.
- Search databases and web search engines effectively and efficiently; use Boolean logic, limit by date, language, or material type, author, title, subject, and keyword searching, and determine what a database contains and how it is organized.
- Retrieve needed documents from a variety of locations in the library and beyond the walls of the library: locate books, journals, newspapers, government documents, and media in the library; use interlibrary loan or Document Express to borrow books or obtain copies of articles not owned by the library; download materials found on the Internet; and obtain copies of reprints directly from scholars.

Computer-Assisted Data Management and Analysis (Psyc 604)

- Construct a graph in Excel.
- Create a spreadsheet in Excel that performs calculations.
- Transfer data across different software packages (SPSS, SAS, Excel, Microsoft Word).
- Screen data in both SPSS and SAS.
- Identify and label missing data in both SPSS and SAS.
- Compute variables and recode data in both SPSS and SAS.
- Conduct data transformations on a subset of the data in both SPSS and SAS.
- Analyze subsets of the data in both SPSS and SAS.
- Merge and concatenate files in both SPSS and SAS.
- Conduct and interpret basic inferential statistics in both SPSS and SAS.
- Identify and correct errors in both SPSS and SAS

Research and Inferential Statistics (Psyc 605)

Provides an understanding of types of research, inferential statistics, research-report development, research methodology and implementation, program evaluation, needs assessment, and ethical and legal considerations. (Prerequisite: Permission of the instructor.)

- Distinguish among descriptive, relational, experimental, and quasi-experimental research methods.
- Explain the logic underlying statistical hypothesis testing.
- Explain the importance of sampling distributions in hypothesis testing.
- Distinguish between significance tests and effect sizes.
- Calculate and interpret Pearson correlation coefficients.
- Calculate and interpret simple linear regression equations.
- Explain the logic underlying analysis of variance.
- Explain the statistical assumptions underlying ANOVA and the ANOVA model's robustness to their violation.
- Distinguish between planned and post hoc ANOVA comparisons.
- Construct a planned comparison and test it for significance.
- Test a set of post hoc comparisons for significance.
- Explain statistical power and its influences.
- Conduct a power analysis for one-factor experimental designs to choose an appropriate sample size.
- Interpret interaction effects in factorial ANOVA designs.
- Perform tests of simple effects to follow up significant interactions.
- Identify an effective blocking variable and analyze the data from a treatments by blocks ANOVA design.
- Identify an effective covariate and analyze the data from a one-factor analysis of covariance design.
- Use SPSS to analyze data from one- or two-factor ANOVA designs containing between-subjects factors, within-subjects factors, or both.
- Differentiate between internal and external validity of experimental designs.
- Interpret the findings from basic quasi-experimental designs.
- Explain the ethical and legal issues involved in research with human subjects.
- Identify a research topic, conduct a brief review of the literature, and develop a proposal for future research.

Measurement Theory (Psyc 606)

Advanced measurement applications of classical test score theory, generalizability measurement theory, scale construction concepts, test bias, standard setting techniques and item response theory. (Prerequisites: Psyc 605).

- Define and describe differences among evaluation, assessment, research, and measurement.
- Define measurement and statistical terms and concepts.
- Describe scaling, the process of test construction, and test scores as composites.
- Interpret the following scales and transformed scores: T scores, Z scores, stanines, IRT ability estimates, and grade and age equivalent scores.
- Explain test results using norm referenced and criteria referenced interpretations.
- Identify various item formats for achievement, attitude, and behavioral instruments.
- Describe the Classical True Score model and associated reliability estimation procedures
- Interpret the reliability of change scores or ratings.
- Identify the basic tenets of generalizability theory, differentiate G and D study purposes, and combine variance components to calculate relative and absolute standard errors and G-coefficients and phi-coefficients. Use computer software to estimate variance components.
- Describe and apply procedures used to determine the reliability of criterion-referenced tests
- Describe contemporary conceptions of validity and associated statistical procedures for investigating prediction, classification, bias in selection, other issues in decision theory, and factor analysis
- Locate, review, and select testing instruments that are psychometrically suitable and will provide useful and legitimate information to meet specific needs.
- Calculate and interpret item statistics, and revise an assessment instrument using a selected response format.
- Explain the basic tenets of Item Response Theory
- Describe and compare test bias, differential item functioning, and adverse/disparate impact.
- Explain methods of setting standards and cut-off scores as an application of validity theory.
- Describe the reasons for equating tests, and distinguish between horizontal and vertical equating. Apply equipercentile and linear equating.
- Exhibit and apply professional and ethical sensitivity to human aspects of assessment using existing AERA, AEA, APA, and ACPA guidelines about fair testing and evaluation practices.

Multivariate Statistical Analysis (Psyc 608)

Continuation of PSYC 605, with emphasis on multivariate analysis, advanced research design and implementation of computerized statistical analysis. (Prerequisite: Psyc 605)

- Calculate the statistics associated with the following procedures: multiple regression, discriminant analysis (DA), MANOVA, principal components analysis, and exploratory factor analysis.
- Interpret the statistical output associated with each procedure.
- Identify the situations under which each procedure is applicable.
- Identify the assumptions underlying each statistical procedure.
- Describe dummy and effect coding in multiple regression and compare these methods with ANOVA and ANCOVA.
- Describe procedures concerning the testing of an interaction in multiple regression.
- Explain the problems with step-wise procedures.
- Differentiate between research questions that dictate the use of MANOVA/DA versus multiple univariate tests.
- Describe multivariate follow-up procedures for MANOVA/DA.

Assessment and Public Policy (Psyc 770)

Delineates and compares the history and role of assessment, accountability, and quality assurance to the governance, funding, and purposes of higher education; describes an implementation process of assessment for educational programs and services. (Prerequisites: Psyc 600 or equivalent)

- Describe the historical, political, and organizational origins of assessment in higher education including 1980's task force reports, National Governors' Association, state legislation, federal government and accreditation agency interventions.
- Compare and contrast performance-funding models of higher education in Tennessee, South Carolina, Missouri, and Virginia.
- Describe the role of the federal government in the governance and funding of higher education.
- Describe the influence of changing student demographics on higher education.
- Differentiate the major state funding strategies and sources of revenue available for higher education and recent trends in their availability (e.g. federal/state, private/public, tuition, fees, and financial aid.)
- Describe the relationship between changing revenue sources and cost trends and their impact on an institution's ability to meet demands.
- Relate the various levels of governance in higher education including faculty, campus based administrators, public officials, and the public.
- Describe the role of public policy toward the governance of higher education systems.
- Describe current issues, challenges, and trends related to the practice of assessment and public policy effecting sound assessment practice.
- Define and identify differences among inputs, outputs, outcomes, and objectives.

- Describe the role of information in the decision making process.
- Describe the importance of regular environmental scanning to understand and respond appropriately to such influences as the role of on line instructional delivery.
- Identify the characteristics of successful program planning and evaluation.
- Write mission statements and program objectives possessing clarity, focus, and comprehensives.
- Write clear objectives that are (1) understandable to people outside one's office or discipline; (2) specific and action-oriented, and (3) suggest the intended outcomes.
- Distinguish between formative and summative evaluation.
- Describe the history of assessment research and application, both in the United States; compare and contrast US assessment history and usage with that in other cultures and contexts.

Assessment Methods and Instrument Design (Psyc 812)

This course will provide a review of psychometric issues associated with instrument and methodology design, selection, and interpretation. Students will be introduced to the program evaluation standards to serve as a guide for useful, credible, and ethical evaluation of educational programs and projects. The standards for educational and psychological testing will be reviewed to inform evaluation of tests, testing practices, and the effects of test use. Given this foundation, students will review available instruments in assessment of critical thinking, general education, and knowledge in academic majors. Qualitative and quantitative methodologies will be considered, compared, and contrasted throughout the course. Development and refinement of surveys and assessment instruments will serve as activities for application of delineation of goals and objectives, hierarchical research question development, assessment purposes, test, item or task specification, item/task development, sampling, item pilot, review, maintenance, and reporting procedures. Consideration of multi-faceted validity and validation issues will be stressed throughout the process. Students will work on existent assessment instrument development and refinement. Development of working relationships with content experts will be emphasized and applied.

- Read and apply the salient professional literature to the student's own assessment practice in application of relevant professional standards to practice;
- Review available instruments in three domains (critical thinking, general education, and assessment in a specific major), and delineate strengths and weaknesses for practice in a given setting;
- Communicate differentiation of norm vs. criterion referenced assessments and their appropriate interpretations;
- Communicate understanding and respect for philosophical differences and value frames supporting different assessment methodologies (i.e., qualitative and quantitative methods);
- Apply both qualitative and quantitative methodologies to appropriate assessment problems
- Communicate understanding of differences and tensions between assessment and accountability;

- Design a survey research project that includes: hierarchical research question development, instrument development, a plan for sampling, data collection that supports the selected method, data codebook development, data analysis, and reporting consistent with ethical and best practice procedures;
- Take an existent instrument and estimate and report the observed reliability and multi-faceted validity, form appropriate recommendations for method improvement, and work with content experts toward method improvement;
- Report assessment results through identification of practical meaning, psychometric credibility, and limitations of the data collected;
- Write a brief, scholarly paper linking assessment practice with a current validity issue.

Performance Assessment (Psyc 814)

The optimal use of tools that assess products and processes is explored within a variety of assessment contexts. This course focuses on the design, development, and implementation of performance-based assessment. Task analysis and design, scoring schema development and use, and assessment deployment, are covered through critique and practice. Potential benefits offered by computer-based administration of performance assessments are introduced. Particular emphasis is given to validity issues throughout the course.

- Describe performance and portfolio assessment within the larger continuum of assessment methods
- Explain advantages and disadvantages of performance-based assessment versus other assessment methods
- Discuss “authentic” and “alternative” assessment
- Explore differences in strategies and procedures for assessing processes and products
- Design and create a complete, packaged performance assessment
- Explain the entire process of developing and implementing a performance assessment
- Conduct a task analysis
- Critique various task designs and justify suggestions for change
- Design performance tasks to measure learning objectives
- Critique and develop scoring schema for various types of performance tasks
- Explain the difference between holistic and analytical scoring systems, including benefits and limitations
- Explore the potential for performance assessment offered by computer-based administration
- Explain the benefits and limitations of portfolio assessment
- Describe situations in which various types of performance-based assessment might best be used
- Discuss reliability issues related to performance-based assessment
- Discuss validity issues related to performance-based assessment.

Classical Test Theory and Generalizability Theory (Psyc 816)

This course examines classical test theory and generalizability theory and their application to the practice of assessment. At a foundational level, model assumptions are explored and used to understand the development of different notions of reliability and dependability. At a practical level, statistical techniques developed from these two theories will be applied to develop and/or improve assessment practices.

- State the true score model of classical test theory its assumptions and properties
- Describe the similarities and differences between parallel, tau-equivalent, essentially tau-equivalent, and congeneric tests
- Define the reliability coefficient in classical test theory and explain its derivation from the true score model
- Describe multiple methods for estimating reliability and explain what they tell you about test scores
- Explain reliability and validity, reliability coefficients, and the validity coefficient
- Describe random and systematic error in classical test theory and generalizability theory
- Conduct an item and a reliability analysis and use the results to develop a new test or improve an existing one
- Explain and apply the unique contributions Generalizability Theory offers for performance assessment.
- Describe and explain the contribution of Generalizability Theory to understanding and expansion of classical reliability theory.
- Describe the difference between Generalizability and Decision studies and the appropriate uses of each study type to measurement development, refinement, and use for decision making.
- Differentiate between relative and absolute decisions to determine appropriate generalizability designs and coefficients.
- Demonstrate how to both differentiate among crossed, nested, random and fixed effects, and implement studies with each kind of design.
- Conduct a Generalizability Study to determine magnitude of sources of error and apply results to improve measurement designs within an applied assessment practice context (i.e., recommend facet modifications to form reliable measurement).
- Demonstrate how Generalizability Theory is used for validation study.

Structural Equation Modeling (Psyc 830)

Exploratory and confirmatory factor analysis, path analysis, and relevant aspects of measurement theory are introduced. In this context, several mathematical and technical issues about model fitting are presented: statistical assumptions, estimation, model evaluation, model modification, software use, and pertinent troubleshooting strategies. (Prerequisites: Psyc 606 and Psyc 608)

- Contrast exploratory and confirmatory factor analysis.

- Compare path analysis and structural equation modeling.
- Discuss reliability and classical test theory within a structural model framework.
- Identify and explain the two components of the full SEM model: measurement and structural.
- Describe the statistical assumptions for several models.
- Explain estimation in general and the most often used estimators.
- Describe structural model evaluation in general and several of the most commonly used fit indices.
- Explain model modification, the statistical procedures used to inform modification, and the issues surrounding modification.
- Describe strategies for overcoming many of the most common difficulties encountered when fitting a model to the data.
- Demonstrate how to use SEM software and interpret findings.

Item Response Theory (Psych 832)

This course will examine the use of Item Response Theory models for test construction and ability estimation. Models for tests with dichotomous as well as polytomous items will be covered. Other topics for discussion include advantages and disadvantages of IRT relative to Classical Test Theory, the detection of differential item functioning (or item bias), and the role of IRT in Computer Adaptive Testing (CAT). (Prerequisite: Psych 606)

- Outline the advantages and disadvantages of IRT relative to the Classical Test Theory.
- Describe the differences among the three popular unidimensional IRT models in theory and application.
- Explain the concept of item and ability parameter invariance.
- Demonstrate a general understanding of Maximum Likelihood and Bayesian procedures as they are applied in IRT item and ability parameter estimation
- Identify, compare and contrast some of the various software packages currently available for IRT applications. Use at least two different packages and interpret the output.
- Describe the two basic IRT model assumptions: unidimensionality and local independence, and understand the implications of these assumptions for application of IRT.
- Describe the procedures used to test the basic assumptions of unidimensionality and local independence.
- Describe the concept of testlets. Explain how testlets can be used to help meet the assumption of local independence.
- Describe the various approaches to assessment of item fit. Discuss the strengths and weaknesses of these approaches. Describe assessment of model-fit through comparison of fit measures for nested models.
- Explain the concept of person-fit. Review and interpret research that utilizes item response theory models in providing diagnostic information, such as identifying aberrant responses of examinees (e.g., works by Drasgow et al.).

- Explain the rationale and procedures for equating, and equate two sets of items (with common people or common items) calibrated separately.
- Apply IRT to dichotomous and polytomous test data, and interpret the results appropriately.
- Identify an appropriate item response model (dichotomous, polytomous, or mixed) to match measurement goals.
- Explain the concept of differential item functioning (DIF) and demonstrate the ability to detect the presence of DIF in a test.
- Utilize item, test and information functions to facilitate the process of test construction.
- Describe the role of IRT in computerized adaptive testing (CAT).
- Identify the considerations for building an item bank within the framework of IRT in general, and CAT in particular.
- Review and interpret research that links psychological processing models for item/task performance to item response theory mathematical models that attempt to estimate parameters for the cognitive components needed to complete task (e.g., studies by Embretson, Lane, and Sheen and Mislevy).

Computers and Testing (Psyc 834)

This course focuses on the computer as a medium for the administration and scoring of achievement tests. The strengths and limitations of current computerized testing methods are addressed, as well as future issues and challenges. Topics to be discussed include linear and adaptive tests, problem simulations, performance assessment, and expert systems. (Prerequisite: Psyc 832)

- Describe the advantages and disadvantages of computer-based test delivery.
- Describe the various types of items that can be administered in computer-based tests.
- Explain the differences between adaptive and nonadaptive computer-based tests.
- Construct both adaptive and nonadaptive versions of a computer-based achievement test.
- Describe several ways of maintaining balanced content in a computer-based test.
- Describe different criteria for terminating a CAT.
- Explain the arguments for and against the provision of item review or item feedback in CATs.
- Explain the method(s) commonly used to select items in a CAT.
- Describe different methods for scoring computer-based tests.
- Describe several methods for controlling the exposure of items from an item bank when a CAT is used.
- Explain the limitations and challenges involved in using a computer to judge the answer of constructed responses.
- Distinguish the types of item selection strategies used in norm-referenced and criterion-referenced CATs.

Hierarchical Linear Models (Psyc 836)

- identify situations that prompt use of hierarchical techniques
- explain the “unit of analysis” problem with hierarchical data and how HLM can be used to address this problem
- understand how OLS regression and ANOVA techniques can be used with hierarchical data
- list the benefits HLM offers over OLS regression and ANOVA techniques when used with hierarchical data
- distinguish among the following: fixed and random effects, fixed and random variables, fixed and random coefficients
- understand maximum likelihood (ML) estimation of model parameters and differences among the various ML techniques used in HLM (e.g., FML, REML)
- be familiar with sample size requirements in HLM
- when given a particular series of research questions, correctly specify a model or set of models to answer the research questions
- be familiar with: a) exploratory model building processes, b) when they should be used, and c) their limitations
- list the various kinds of centering used in HLM, explain why centering is used, correctly use the various centering methods, and correctly interpret the parameters that result from the various methods of centering
- understand: a) the assumptions of HLM, b) how to identify assumption violations, c) the impact of assumption violations on results, and d) ways to address such assumption violations
- with hierarchical data having 2- or 3-levels, including longitudinal and meta-analytic data, the student will be able to:
 - use SAS and HLM software to fit various HLMs
 - fit and correctly interpret models without predictors (intercept-only models) as well as models including predictors at various levels
 - understand the logic behind fitting an intercept-only model to the data prior to fitting more complex models
 - correctly compute and interpret the intraclass correlation coefficient (ICC)
 - correctly compute and explain percent of variance accounted for at each level
 - correctly interpret the model parameters and assess the fit of model to the data
 - explain how residuals are computed using empirical Bayes estimation
 - properly use, interpret and display residuals
 - communicate analysis results effectively in writing
 - be familiar with the how HLM is used with: cross-classified data, multivariate dependent variables, categorical dependent variables, and latent variables

Assessment Consultation and Practice (Psyc 855)

This course will provide guided opportunities for supervised application of sets of assessment skills and competencies with the development of professional self as an assessment practitioner. Students will join with Center faculty to engage in ongoing assessment projects concerning at-risk students, alumni surveys, academic undergraduate and graduate degree programs, general education, academic program reviews, and distance education programs. Ethics will be emphasized spanning the continua of assessment practice from establishing consultation relationships, assessment design, data collection, analysis, maintenance and archiving of data, report writing, presentation of findings, toward enhanced awareness of ethics as multifaceted: personal, corporate, political, societal, and professional.

- Describe the role of the "Assessment Expert" in a legal, social, and political context; delineate the powerful role assessment processes and data have played at an individual as well as legal, social, and political levels; describe the actual and potential benefits, risks, and abuses of assessment procedures and data (e.g., the Carrie Buck case as one exemplar).
- Respond to relevant criticism of assessment procedures (e.g., minority assessment, other cross-cultural criticisms).
- Describe relevant legal and ethical issues not only of validity and reliability, but of fair and appropriate use (e.g., the 4/5 rule from the Uniform Guidelines).
- Describe how assessment practitioners/ scholars are different from and similar to, other professionals and/or fields of practice and inquiry that use/develop assessment procedures (e.g., industrial/organizational psychology, quantitatively-oriented psychologists, clinical psychologists, etc.)
- Compare and contrast current and historical assessment practices and applications, and portend those that will arise in the next 5, 10, and 20+ years.
- Describe basic concepts, models and strategies of consultation including their underlying principles and assumptions.
- Describe variables impacting the consultation process at various stages of practice.
- Summarize research of past five years related to consultation and planned change.
- Explain legal and ethical issues involved in the practice of consultation.
- Diagnose and apply models of consultation to specific situations.
- Apply collaborative, problem-solving consultation with an individual or group through each stage of consultation process in an assigned situation.
- Plan and communicate strategies needed to develop research to the consultation process.
- Apply knowledge of social and behavioral research to the consultation process.
- Describe the cognitive, behavioral, and affective considerations or consulting with culturally diverse consultees and client systems.

Doctoral Assessment Practicum (Psyc 878)

This course will provide guided opportunities for supervised application of sets of assessment skills and competencies with the development of professional self as an

assessment practitioner. Students will join with Center faculty to engage in ongoing assessment projects concerning at-risk students, alumni surveys, academic undergraduate and graduate degree programs, general education, academic program reviews, and distance education programs. Ethics will be emphasized spanning the continua of assessment practice from establishing consultation relationships, assessment design, data collection, analysis, maintenance and archiving of data, report writing, and presentation of findings. Practicum is the interim step between assistantship and internship. The student achieves full membership as a project team member, balancing application of the technical skills and competencies obtained while working toward enhanced awareness of ethics as multifaceted: personal, corporate, political, societal, and professional.

- Describe and utilize quasi-experimental designs in assessment and evaluative studies.
- Demonstrate ability to organize and implement a project
- Work collaboratively as a member of a team to achieve specified goals
- Demonstrate competence in assessment design
- Seek and create opportunities to report the findings and outcomes of the project as a means of achieving progress in assessment practice
- Exhibit and apply professional and ethical sensitivity to human aspects of assessment using existing AERA, AEA, and ACPA guidelines about fair testing and evaluation practices.
- Interpret assessment data to various individual and group audiences
- Demonstrate the ability to produce and deliver an effective oral message using appropriate message construction, audience analysis, and presentation styles.
- Display effective interpersonal communication skills in groups by defining problems, eliciting and recognizing member contributions, synthesizing opinions, mediating conflicts, and reaching consensus.
- Demonstrate ability to respond to varied communication styles and with persons of different cultures or groups (audience adaptability).
- Explain legal and ethical issues involved in the practice of consultation.
- Apply collaborative, problem-solving consultation with an individual or group through each stage of consultation process in an assigned situation.
- Establish professional consulting relationships.

Developmental Psychology (Psyc 619 or Psyc 646)

Addressing how to design environments that facilitate college student learning and development, this course introduces the practical significance and application of student developmental theories concerning both individuals and groups. An emphasis will be placed upon alternative approaches to current student issues and trends that are informed by student developmental theory.

- Construct an assessment method to measure a developmental construct.

- Explain the theoretical frameworks of Perry, Chickering, Kohlberg, Erikson, Lovinger and Belenky, Clinchy, Goldberger, and Tarule.
- Identify the differences among student developmental, skill, and learning outcomes.
- Identify the difference between student outcomes and environmental operations inputs (e.g., satisfaction or attitudinal surveys). Describe how information collected for these different types of assessment differ.
- Distinguish between developmental and environmental operations.
- Construct student development objectives and outline assessment procedures to assess these developmental objectives for a given student affairs program. Assessment procedures include selection of methods, procedures, and analytical techniques.
- Outline several strategies for improving learning beyond classroom teaching.
- Explain the role of cognitive development learning theories in assessment method design.
- Describe and explain at least two ways for categorizing educational objectives.
- Relate psychological development theory to the social, sexual, and emotional issues in young adults and describe how such issues influence the behavior of college students.
- Discuss the developmental differences between the needs and issues of the traditionally aged college student and nontraditional college students (stratified by decade).
- Discuss the relations between adolescents and parents, their changing perceptions of parents, variations in parental behavior, and family communication.
- Discuss the force of conformity to peer culture upon adolescents as well as the rivalry between peer and parental influences.
- Describe the development of identity and the variations in identity formation.
- Describe the development of vocational goals and the role that socioeconomic, parental, gender, and peer influences play.

Cognitive Psychology (Psyc 613)

Framed within the construct of a human information-processing system, this course introduces the representation, acquisition, retrieval and use of both declarative and procedural knowledge. The course culminates with a few guided applications, focusing upon the practical advantages of such a construct.

- Explain the contribution of information processing and neural network models to the theory of cognitive psychology.
- Describe methods used in cognitive psychology, including empirical methods (e.g., latency data, verbal reports, sorting, free recall, and eye fixation data) and theory development methods (subtractive techniques, information processing techniques, and computer simulation).
- Articulate cognitive theory concerning the representation, acquisition, and retrieval of declarative knowledge (e.g., propositional networks, imagery, and linear ordering),

procedural knowledge (automated basic skills, controlled procedural knowledge and productions), and schemas, with applications in writing, reading, and mathematics.

- Define transient memories and their relationship to working memories and permanent memories.
- Enumerate and define three known stages of skills acquisition.
- Describe the stages in problem solving and reasoning as well as the difference between domain-specific and domain-general problem solving.
- Indicate the role of conceptual understanding in the transfer of knowledge and how the transfer of automated basic skills occurs.
- Articulate the differences between information-processing, personality, social interaction, instructional preference, and multidimensional approaches to the study of learning styles.
- Describe how the different approaches to the study of learning styles can potentially be used together to provide a comprehensive understanding of individual differences in how students perceive, interact with, and respond to different learning environments.
- Describe the prominent theoretical models pertaining to learning style (e.g., Kolb's experiential learning model, the field-independent/dependent theory of Witkin, Reichman-Grasha's model of student response styles, and the Dunn and Dunn model).
- Explain the different approaches to assessment of learning styles in college students. Delineate the advantages and disadvantages of each.
- Describe the implications of individual differences in learning style on instructional delivery (particularly as related to advances in technologically delivered instruction).

Social Psychology (Psyc 616)

- Delineate the individuals, theories, and studies that have played decisive roles in the history of social psychology.
- Describe the social psychological research methods used to study social psychological processes such as persuasion and conformity, leadership and dominance, aggression and altruism, intercultural encounters and nonverbal behavior.
- Describe the theory and research relevant to social cognition. Specifically, delineate the basic tenets of theories related to attitude formation and change and provide an overview of attribution theory. For each theoretical framework, describe the relevant key research findings.
- Describe current social psychological thinking pertaining to interpersonal relationships, emphasizing interpersonal attraction, friendship formation, aggression, and prosocial behavior.
- Define and describe concepts related to social influence (e. g., social power, persuasion, leadership, conformity, obedience, prejudice and discrimination). Cite specific examples of the role of social situational influences on human behavior and thought.
- Describe the concept of the self from a social psychological perspective. Specifically, describe how one comes to develop a sense of self and how one's sense of self influences interactions with others.
- Provide specific examples of how each of the following influence the way people behave and interact with others: 1) cognitive activity, 2) individual differences, 3) and group phenomena.

Qualitative Research Design and Analysis (Psyc 840)

This course is designed to give students an introduction to the philosophical, conceptual, and practical basis of qualitative research. Provides an introduction to all phases of qualitative research design: developing research questions, doing data collection and analysis, and writing a qualitative research proposal. (Prerequisite: Permission of instructor.)

Students who have taken this course should be able to write a qualitative research proposal that demonstrates understanding of the following research design topics:

- How to identify qualitative research questions within the given research strategy used.
- How to select and use appropriate data collection tools given the research strategy used.
- How to sample participants and sites.
- How to manage and store data.
- How analyze data within a given research strategy.
- How to use qualitative data analysis software.
- How to interpret data within a given research strategy.
- How to interpret research findings within a given research strategy.
- How to determine the quality - reliability and validity- of data.

- How to deal with ethical issues, such as informed consent, confidentiality versus anonymity, voluntary participation, and right to withdraw.

These objectives will be assessed through several writing assignments, data analysis projects, and completion of a qualitative research proposal.

Personal and Professional Conduct Evaluations

The Assessment and Measurement Doctoral Program strives to create a climate of mutual respect among faculty, staff, and students. Students, faculty, staff, and practicum/internship site personnel are expected to interact in a professional and respectful manner. In this regard, students should demonstrate behavior and attitudes that positively reflect upon the program, the university, and the profession. Evaluation of student progress by the Committee at the end of each semester will incorporate an assessment of students' performance and conduct, and feedback will be provided to students. A student may be dismissed from the program for personal conduct that is considered to demonstrate a lack of respect for others, conveys insensitivity to the needs of others, or is otherwise deemed inappropriate and/or detrimental to the profession or the Ph.D. Program. Decisions regarding student conduct or performance in the Ph.D. Program, including but not limited to dismissal or other remedial requirements, will be made by consensus of the Committee.

Ratings can generally be interpreted as follows:

- 1: Exceptional
- 2: Very good; at the level expected for a doctoral student
- 3: Needs improvement; student is expected to actively strive to improve this area
- 4: Unacceptable

Personal and Professional Conduct Evaluation Criteria

This form is to be completed by the core program faculty for all enrolled Assessment and Measurement Ph.D. students as an integral component of the annual evaluation process. The Committee will rate each student on the personal and professional conduct dimensions listed below.

A. Professional Development/Identity

1. Student demonstrates a very well-developed professional identity that is consistent with the student's level of training as evidenced by the student's strong interest in the field, involvement with professionals beyond the immediate campus community, and efforts geared toward staying current with new developments, research findings, and political trends that impact the field.
2. Student demonstrates a fairly well developed professional identity that is consistent with the student's level of training. The student has shown interest in the field, some involvement with professionals beyond the immediate campus community, and has exhibited a moderate level of effort directed toward staying current with new developments, research findings, and political trends that impact the field.
3. Student demonstrates an under-developed professional identity that is inconsistent with the student's level of training. The student has shown only a marginal level of interest in the field beyond the immediate campus community, and has extended little effort directed toward staying current with new developments, research findings, and political trends that impact the field. The student seems to be postponing involvement with the field for some later date.
4. The student has made virtually no effort to develop as a professional above what is minimally required by the curriculum. The student has shown no interest in the field beyond the immediate campus community, and has extended little effort directed toward staying current with new developments, research findings, and political trends that impact the field.

B. Professional Self-Confidence

1. Student presents herself/himself in a very self-confident, poised, and professional manner. The student is at ease in most situations.
2. Generally professional. The student is generally poised, yet seems unsure or nervous in certain situations.
3. Needs practice on presenting self professionally. Lacks self-confidence and poise in various situations, but a good base is present.
4. Student does not present self well professionally. Lacks self-confidence, poise, and organization.

C. Ability to work independently, conscientiousness

1. Very capable of working independently with minimal supervision. Can be relied upon to competently finish projects within reasonable time frames. Enjoys the challenge of adding definition to work assignments.
2. Generally capable of working independently with little supervision. Will usually produce quality work within a reasonable time frame.
3. Sometimes has difficulty determining the necessary steps or tasks involved in completing a project. Often asks questions that he or she really already has (or can easily obtain) the answers to.
4. Minimal capacity to work independently; requires frequent supervision. Is only capable of completing tasks for which every step in the process is clearly defined. May be dependent on others for direction and will procrastinate or flounder when others do not direct his or her work.

D. Flexibility

1. Very flexible as exemplified by willingness to modify plans and work schedule to attend to more pressing demands as they arise. Takes the initiative to make new plans and pursue alternative arrangements when unanticipated interruptions occur. Is open to suggested constructive change as an individual.
2. Generally flexible as exemplified by willingness to modify plans and work schedule to attend to more pressing demands as they arise. Will take the initiative to make new plans and pursue alternative arrangements when unanticipated interruptions occur. However, will sometimes exhibit signs of frustration or distress when unanticipated events result in schedule changes.
3. Not very flexible as exemplified by an unwillingness to modify plans or schedule. Instead of taking the initiative to make new plans and pursue alternative arrangements when unanticipated interruptions occur, the student becomes somewhat flustered and tries to do everything at a faster pace.
4. Very rigid and unwilling to modify plans or schedule for any reason. When circumstances force the student to make modifications, he or she becomes frustrated, angry, resentful, and often difficult to be around.

E. Time management and organizational skills

1. Good time management skills. Schedules own as well as group activities, keeps others up-to-date and involved in decision-making. Arranges work and resources by priority. Sets concrete goals for the future. Makes clear plans for self and others. Delegates tasks well.
2. Adequate time management skills. Usually schedules own as well as group activities without much difficulty. Generally arranges work and resources by priority. Occasionally experiences difficulty with meeting deadlines. Generally delegates tasks adequately.
3. Could use time management training. Has some problem with scheduling conflicts in own activities as well as when trying to coordinate group activities. Some problems meeting deadlines.
4. Unable to successfully manage suitable planning and scheduling for group activities. Cannot coordinate group schedule that is suitable. Often plans things without informing others and considering their input.

F. Ability to function in stressful situations

1. Maintains a consistent level of performance regardless of stress during confrontations, tight time frames, and uncertainty. Is effective in a cooperative as well as a competitive mode.
2. Occasionally loses poise in stressful situations. May react to stressful situations by becoming hyperactive. Sometimes exhibits frustration.
3. Often loses poise. May show anger and frustration or withdraw when stress situation is intense. Has difficulty functioning under stress.
4. Has difficulty functioning under stress; unable to perform necessary duties.

G. Problem solving ability

1. Able to identify surface as well as underlying problems immediately and form an action plan to correct them. Brings in new information, develops suggestions, checks for understanding and agreement among group members. Develops alternatives.
2. Able to identify problem but some difficulty in recognizing proper procedure for designing an action plan and executing it. Problems recognizing relevant data and information.
3. Some difficulty in identification of central problems, action plan procedure also weak. Logic behind decision not clear.
4. Unable to identify central problems in given situations.

H. Ability to create new ideas and solutions from limited information

1. Redefines problems so that new solutions can be considered, puts familiar things together in creative ways. Stimulates innovative thinking in others. Proposes new approaches and uses creative argumentation.
2. Has creative ideas but is unable to incorporate them into action plans.
3. Tends to stick to old ideas that were suggested in the beginning. Cannot use combination of others ideas to produce new insights.
4. Limited confidence in presenting original ideas.

I. Level of contribution to group discussions

1. Contributes freely. Actively solicits contributions of others.
2. Good participation.
3. Uneven participation, with a tendency to withdraw during group discussions.
4. Rarely contributes opinions or ideas.

J. Quality of group participation

1. Informed, articulate, flexible, honest. Keeps on track in discussion.
2. Informed and articulate but tends to carry discussion away from point at times.
3. Causes some complications within the group by disputing other members. Divides group at times.
4. Causes disruptions in groups that significantly impair productivity.

K. General ability to work in a group setting

1. Works well in group settings; offers and takes suggestions, talks freely and openly with others, promotes group harmony, concentrates on group goal, gives relevant contributions, and is sensitive and responsible.
2. Fairly strong in group interactions but shows some tendency to fluctuate in participation. At times may be withdrawn and quiet; on other occasions may become hostile or inappropriately argumentative.
3. Seems intimidated by group situations, does not participate actively, usually withdrawn and quiet.
4. Is disagreeable or inappropriately argumentative in interactions, may be late for meetings or not show interest when other group member are talking.

L. Group leadership ability

1. Leads conversations, listens well, willing to assume responsibility, keeps check on the direction the meeting is headed, resolves differences by negotiation and shows planning and organization of topic.
2. Able to lead conversations but shows some unwillingness to assume major responsibilities. Some problems with being able to resolve conflicts within the group. Planning and organization needs improvement.
3. Shows lack of flexibility. Runs group without allowing opinions of all to be expressed. Hinders group productivity.
4. Needs more structure while leading group. As a rule, is nondirective to the point that the group is not able to come to needed decisions.

M. Response to criticism

1. Reacts favorably and listens to expressed opinions contrary to own, acknowledges others and their concerns.
2. Listens to others' views yet reluctant to alter own belief even in the face of disputing evidence.
3. Listens but becomes overly defensive or apathetic at times.
4. Dismisses or fails to hear criticism.

N. Quality of relationships with peers, faculty, and staff

1. Friendly and empathetic, listens openly to others' ideas, supportive and encouraging. Cooperative rather than competitive.
2. Friendly yet reluctant to accept others' views without arguing. Tries to persuade others to see their side as most logical in most situations. Overall, cooperative in most situations.
3. Acts superior to or is indifferent to others and expects them to consistently agree with his/her ideas. If not, becomes overly competitive or interpersonally distant.
4. Has difficulty initiating and maintaining positive professional relationships.

O. Cooperation

1. Cooperative and goes out of way to help others, good-natured and easy to get along with.
2. Generally cooperative and willing to help others when asked. Usually easy to get along with, but may be argumentative or difficult at times.
3. Level of cooperation may be highly variable. Sometimes unwilling to help others or forgets promises to help.
4. Uncooperative, resists assisting others. Very difficult to get along with, often seems to look for controversy.

P. Responsiveness to the opinions/view points of others

1. Actively seeks others' opinions. Understands the perspective of others. Listens closely, integrates and synthesizes any new information that can be used.
2. Listens to opinions given by others, but unable to integrate those opinions to strengthen own arguments and information.
3. Dependent on others' opinions to help make final decisions. Has trouble making independent decisions without approval of others.
4. Ignores opinions of others when offered. Argues if members disagree with own point of view. Refuses to consider other opinions as helpful.

Q. Ability to provide feedback to others

1. Gives constructive rather than destructive criticism; offers helpful suggestions, focuses on issues and not the other individual's personality. Addresses strong as well as weak points in presentations.
2. Provides more constructive than destructive criticism. Usually offers helpful suggestions, focusing on issues and not the other's personality. Addresses strong as well as weak points in presentations. Occasionally lapses into the use of destructive criticism.
3. Some difficulty in distinguishing between constructive and destructive criticism, focuses more on negative points while ignoring positive ones. Overall suggestions are helpful and is able to keep away from evaluating the personality of the member.
4. Criticism more destructive than constructive. Often makes attacks on the member's personality instead of the topic, suggestions tend to be "ordered" rather than "suggested."

R. Interpersonal communication in a one-on-one situation

1. Works to establish rapport. Communicates freely and openly. Shows interest in the other person and adapts style as necessary to keep the flow of the conversation going. Individual is able to see viewpoints of others in order to facilitate communication.
2. Shows positive communication in most cases, but some difficulty seeing viewpoints of others.
3. Often appears detached and distant during interaction. Has difficulty maintaining flow of information and adapting to viewpoints of others.
4. Very rigid interpersonally. Is obviously uncomfortable when communicating with others and shows minimal capacity to see viewpoints of others.

S. Presentation skills

1. Evidence presented in an orderly and well documented format. Follows an agenda, answers questions directly, recognizes limitations of own evidence. Appears relaxed and confident in front of the group
2. Evidence presented shows some lack of organization and documentation. Overall, answers questions directly and recognizes limitation of evidence. May generally appear confident and relaxed.
3. Generally well prepared for the topic, but lack of organization or delivery style interferes with presentation. May be somewhat tense and nervous- shows in delivery of presentation.
4. Lacks organization and important knowledge of subject. May be unable to answer questions directly. May appear anxious during presentation.

T. Written Communication

1. Presents ideas in a convincing way. Uses sentences that are connected and transitional. Uses acceptable format and conveys substantial content. Strong summary or closing.
2. Writing style is adequate. Generally presents ideas in a convincing way. Sentences are usually clear and well formed. Content is generally substantive and attention is given to closing.
3. Needs review on proper form for writing notes and letters. Sentences not as clear as possible. Some problem with grammar and using words effectively.
4. Writing unclear and hard to follow. Lacks transitions between sentences and paragraphs. Ideas not clearly conveyed.

Personal and Professional Conduct Evaluation Checklist

A. Professional Development/Identity

1____ 2____ 3____ 4____ N/A*____

B. Professional Self-Confidence

1____ 2____ 3____ 4____ N/A____

C. Ability to work independently, conscientiousness

1____ 2____ 3____ 4____ N/A____

D. Flexibility

1____ 2____ 3____ 4____ N/A____

E. Time management and organizational skills

1____ 2____ 3____ 4____ N/A____

F. Ability to function in stressful situations

1____ 2____ 3____ 4____ N/A____

G. Problem solving ability

1____ 2____ 3____ 4____ N/A____

H. Ability to create new ideas and solutions from limited information

1____ 2____ 3____ 4____ N/A____

I. Level of contributions to group discussions

1____ 2____ 3____ 4____ N/A____

J. Quality of group participation

1____ 2____ 3____ 4____ N/A____

* N/A indicates not applicable or not enough information to rate

K. General ability to work in a group setting

1_____ 2_____ 3_____ 4_____ N/A_____

L. Group leadership ability

1_____ 2_____ 3_____ 4_____ N/A_____

M. Response to criticism

1_____ 2_____ 3_____ 4_____ N/A_____

N. Quality of relationships with peers, faculty, and staff

1_____ 2_____ 3_____ 4_____ N/A_____

O. Cooperation

1_____ 2_____ 3_____ 4_____ N/A_____

P. Responsiveness to the opinions/view points of others

1_____ 2_____ 3_____ 4_____ N/A_____

Q. Ability to provide feedback to others

1_____ 2_____ 3_____ 4_____ N/A_____

R. Interpersonal communication in a one-on-one situation

1_____ 2_____ 3_____ 4_____ N/A_____

S. Presentation skills

1_____ 2_____ 3_____ 4_____ N/A_____

T. Written Communication

1_____ 2_____ 3_____ 4_____ N/A_____

Comprehensive Examinations

A requirement of the doctoral program in assessment and measurement is that students must successfully pass a comprehensive examination. The comprehensive examination contains both a written exam and an oral presentation. Students have the opportunity to take the written examination at one of two different administrations each year—between December and January and between May and August. For each test administration, the faculty will set the test dates with input from the students scheduled to take the examination during that administration. The written examination is typically taken at or near the end of coursework. Students may not take the written comprehensive exam until they have completed at least 80% of the course requirements for the degree. A student's readiness to sit for the examination will be determined jointly by the student and his or her advisor. The oral presentation must be given within four months (before or after) of the written exam. Successful completion of the written exam and oral presentation is required prior to the beginning of the internship training experience.

The Written Portion of the Comprehensive Examination

Written comprehensive exams (comps) will cover four broad areas of the curriculum: Assessment and policy, statistics, measurement, and advanced topics. Comps will consist of no more than eight questions asked over a two day period. Students will have up to eight hours to complete the questions on each day. Within those 8 hours, a thirty minute lunch break on each day is highly recommended.

Comprehensive exams are designed to elicit two types of response. Day 1 items are drawn from the world of practice. These questions will tap into foundational knowledge and be typical of professional discourse or consultation that requires an impromptu response. Day 2 questions may be more technical or theoretical than those given on day 1. Unlike day 1 items, some day 2 items may not have a clear correct answer. Such items may be used to evaluate students' abilities to think through an answer in a manner appropriate for a statistics, measurement, or assessment consultant. Questions asked on day 2 will likely require review and citation of source materials.

On day 1, students will respond to four or five questions (questions may have multiple parts). The session will be closed-book, but the item bank will be available in advance. The permissible content areas for day 1 are statistics, measurement, and assessment and policy. Students are encouraged to incorporate content from professional readings (e.g. current journal articles, books, etc.) that extend content covered in coursework. All of these content areas or some subset of them may be covered on the exam. The day 1 item pool will be updated periodically. Updates may consist of revising existing items or adding new items to the bank. The updated item pool will be released when available and updates will not be made within a month of comps. Updates of the item bank do not imply that the new or revised items will be used for next administration of comps.

On day 2, students will be presented with five items but only three items must be answered. One of the five questions will be mandatory for all students taking comps during that session. The other two may be selected by the student from the remaining four items. In some cases the required question may oblige a student to read an article (provided in advance) and discuss it or integrate it with other content areas. The questions on day 2 will NOT be available in advance. Therefore, the session is open-book (all notes, books, photocopies. No computer files or access to internet/phone or help from other people). Day 2 questions will likely be more comprehensive, technical or thought provoking than questions asked on day 1. Moreover, day 2 questions will likely require more integration of knowledge across multiple content areas in order to receive at least a faculty rating of Pass. In addition, students are encouraged to incorporate content from professional readings (e.g. current journal article, books, etc.) that extend content covered in coursework.

Content Areas and Relevant Courses

The four broad content areas are shown in the following table along with the relevant courses. The *relevant courses* describe the courses that a student will most likely draw upon in order to receive at least a Marginal Pass faculty rating on a question. To receive a faculty rating of Pass or High Pass, a student may also need to draw upon other coursework that is not explicitly listed as relevant coursework as well as external readings not explicitly covered as part of coursework. Students are encouraged to integrate ideas within and across courses to the extent that is appropriate for a given question.

Day's Content		Content Area	Relevant Courses & Readings
Day 1	Day 2		
X	X	Statistics	PSYC 604 Data Management PSYC 605 Research & Inferential Statistics PSYC 608 Multivariate Statistics Professional readings
X	X	Measurement	PSYC 606 Measurement Theory PSYC 814 Performance Assessment PSYC 816 Classical Test Theory & Generalizability Theory Professional readings
X	X	Assessment & Policy	PSYC 770 Assessment & Public Policy PSYC 812 Assessment Methods & Instrument Design PSYC 855 Assessment Consultation & Practice PSYC 879 Doctoral Assessment Practicum Professional readings
	X	Advanced Topics	PSYC 830 Structural Equation Modeling PSYC 832 Item Response Theory PSYC 834 Computers & Testing PSYC 836 Hierarchical Linear Models Professional readings

General Definitions of Faculty Ratings

Fail – The student's response does not contain the requisite ideas; essential concepts are misunderstood ; numerous errors and omissions are made; writing is disorganized; an excessive amount of extraneous information is evident.

Marginal Pass – The student's response addresses the basic ideas relevant to the question, but organization is poor or integration of the ideas is somewhat lacking; there may be some extraneous information; the response is narrowly focused and lacks depth. Response is evident of a surface understanding or a unstable understanding of essential concepts.

Pass – The student’s response contains the basic ideas with a few additional relevant details; the ideas are integrated and discussed in an organized fashion and there is little if any extraneous information; an obvious effort was made to integrate multiple coursework and/or content areas if appropriate. There is evidence that the student understands the essential concepts well and shows promise for understanding them even more deeply with time.

High Pass – The student’s response contains the basic ideas along with explicit details that are discussed in a clearly organized and well-integrated fashion; new ideas and/or connections among currently literature are mentioned; multiple content areas and/or relevant courses are integrated and there is no extraneous information; this type of response reads like a publishable manuscript. There is evidence that the student has a deep understanding of the essential concepts; the understanding is comparable to that of PhDs in assessment, measurement and statistics.

The core faculty will meet after scoring the written comprehensives. Each question will receive an overall score of Satisfactory or Unsatisfactory. If no ratings for a question are Unsatisfactory the grade for that question will be Satisfactory. If one or more faculty ratings for a question are Unsatisfactory, then the faculty will discuss the score and decide whether the grade for that question should be Satisfactory or Unsatisfactory. To pass the written portion of the comprehensive examination, the student must earn a Satisfactory overall grade on each question. If any of a student’s answers receive an overall grade of Unsatisfactory, then the student will be required to retake those questions, within the time period agreed upon by the student, the advisor, and the program coordinator. If several of a student's responses receive an overall grade of Unsatisfactory, the core faculty may require the student to retake a new written examination at another scheduled examination time.

A student who receives a grade of Unsatisfactory on a question after two attempts is subject to dismissal from the doctoral program. In such cases, the student may appeal for a third attempt at the question. This appeal—which must be made within three weeks of the grading of the second question attempt—will be considered by the core program faculty. If the appeal is denied, or if the appeal is granted and the student receives a third rating of Unsatisfactory for that question, then the student is dismissed from the program.

The Oral Portion of the Comprehensive Examination

The purposes of the oral presentation are to assess the student’s (1) ability to develop, discuss, and defend a research idea, (2) oral communication skills, and (3) grasp of assessment areas/issues. Other students and faculty will be invited to the presentation. The oral presentation for each individual student will be approximately 1-1.5 hours in length. At the beginning of the session, the student will give a short (45-minute maximum) presentation, allowing at least 30 minutes for questions. This presentation is designed for the advanced student to present to a broad audience the status of an area of interest and developing expertise. The presentation is not a dissertation proposal, but may be on the same topic as the student's future dissertation. In the presentation, the student will integrate research, and possibly data, in an area of inquiry and identify research opportunities or "gaps" in the literature. The student will present an original research question, describe what related research has been reported (possibly including pilot studies the student has conducted), and defend the importance of the idea and what it will contribute to the field of assessment and measurement. Within this presentation, the student will also be expected to demonstrate foundational knowledge, skills, and concepts relevant to the topic, show professional interactions with the audience, field questions competently, and use presentation software competently. At least four weeks prior to the oral presentation, each student will provide his or her advisor with a brief (one page maximum) description of the presentation topic.

The oral presentation committee will consist of the core program faculty (at most one member may be absent), and possibly one or more additional individuals whom the student's advisor and the program coordinator feel are appropriate participants. These additional participants will be chosen for their expertise in the scholarly areas of interest to the particular student.

A student's oral presentation will be judged immediately after the session. The audience will be thanked for their attendance and dismissed, and the student will leave the room also. Members of the examination committee will each rate the student's performance according to the oral presentation rubric, and then discuss the student's performance and decide on an overall Satisfactory or Unsatisfactory rating. If a student does not pass the oral presentation, the core faculty will design remediation procedures and requirements; the student may be required to do another presentation after remediation

ORAL COMPREHENSIVE PRESENTATION RUBRIC

I. Content Related Components

A. Specify Topic Domain

Topic is unspecified, unfocused	Insufficient topic breadth or depth	Appropriate breadth; only relevant work cited
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B. Demonstrate Control of Literature

Studies cited w/o connection	Studies cited with some linkage	Fluent, well integrated connections made
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C. Establish Importance of Topic

Topic relayed without context in literature	Some indication of topic importance noted	Topic importance for research confirmed
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D. Identify Research Opportunity

Work cited without research context	Gaps in research findings noted; opportunity cited	Formulation of new research ideas
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E. Demonstrate Command of Foundational Concepts (i.e., theory, models) Related to Literature

Related foundation concepts ignored or glossed over	Important concepts mentioned; understanding not well demonstrated	Foundation concepts integrated with fluid clarity
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F. Demonstrate Command of Foundational Concepts (i.e., statistics, measurement, assessment) Related to Research Approaches

Technical concepts Confusing or obfuscated	Technical concepts stilted and definition like	Technical concepts understandably presented- clearly summarized
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II. Delivery Components

A. Demonstrate Effective Organization

No apparent organization; presentation rambles	Organization loses track; transitions lacking	Presentation is organized with clear transitions
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B. Demonstrate Effective Verbal and Nonverbal Delivery

Weak eye contact, voice tone, audibility	Confident delivery both verbal and nonverbal	Sustained contact with audience; poised fielding of questions
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C. Use Presentation Software and Projection Technology Effectively

Software nonfunctional or interferes with delivery	Appropriate software use not integrated with delivery; overly dependent on software	Delivery enhanced well by effective technology use
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D. Demonstrate Effective Interaction with Audience

Defensive interaction, halting or hesitant; Avoided direct questions	Inconsistent interaction with audience; sporadic confidence	Sustained confident contact with audience; Answered questions directly
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III. Professional Demeanor

Presentation weakened by inappropriate dress, language, attitude, or demeanor	Presentation style, delivery, or demeanor mismatched to audience or occasion	Professional demeanor matches audience and occasion
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Practicum and Internship Guidelines

An Experiential Model to Prepare Practitioner-Scholars

The Assessment and Measurement Ph.D. program was designed to provide a strong experiential base, and it is expected that a considerable amount of what a student learns during his or her years in the program will be acquired and demonstrated during assistantship, practica, and internship experiences. The Ph.D. program will manifest the practitioner-scholar model through a combination of these experiences and formal coursework. Every effort will be made to provide all full-time students with doctoral level assistantships at JMU. Ideally, students will begin their experiential learning with an assistantship at the Center for Assessment and Research Studies (CARS). In addition, two practica and one extended internship experience are included as part of the required doctoral coursework. These are described below.

Practicum Guidelines

The first practicum experience will generally take place immediately following the first two semesters of full-time doctoral coursework or the equivalent in semester hours. The doctoral seminar taken the semester previous to practicum course enrollment represents a good planning and approval time. Practicum activities, which can be conducted external to the campus, will be chosen to involve each student in a diverse set of applied assessment projects with increasing independent responsibility. The expectations for student activities, learning experiences, outcomes, and products are framed by the goals and objectives of the program, and each practicum experience shall be designed to build upon the needs and interests of the student. The second practicum experience will typically take place after the second year of full-time course work, or the equivalent. These experiences will generally occur at satellite locations on the JMU campus with both CARS faculty supervision and the assistance of on-site supervisors.

In conjunction with applied experiences in higher education contexts, students will be required to complete written project reports based on implementation of assessment methods and practice. The following are examples of the types of projects that would qualify for practicum credit.

- A project involving the development of an assessment design, data collection, analysis, and report (both written and oral) for an academic degree program
- Projects involving the specification of a general education area or a major student affairs initiative
- A study exploring the impact of alternative instructional methods on student learning and development
- The planning, conduct, and reporting of workshops involving faculty toward improving assessment methods

Each project must be collaboratively planned and approved by CARS faculty and appropriate on-site personnel prior to initiation. The correspondence of the practicum experience with program goals and objectives must be demonstrated. It should be noted that many of the objectives of the Assessment and Measurement doctoral program are not

readily assessable via review of final project reports or products; the processes students engage in are also critical. Therefore, it would be expected that students would report on their practicum activities via meeting minutes and journal logs.

Each project will be evaluated using criteria appropriate for the specific project and products. For example, a project designed to develop an assessment design for an academic degree program might be evaluated on the following domains:

- 1) specificity of the educational or learning objectives;
- 2) quality of the assessment methods selected or designed;
- 3) appropriateness of the strategy for collecting information or data;
- 4) appropriateness of the assessment/analytical methods;
- 5) quality of professional communication and behavior throughout the project;
- 6) demonstration of ability to establish and maintain professional work relationships;
- 7) quality of products developed for the project;
- 8) development of means to share the results of the project with a variety of stakeholders; and
- 9) clarity of reports concerning the project and appropriateness of format and content; and
- 10) student's willingness to seek and receive feedback concerning the project's process and result.

Practicum students will seek opportunities for evaluation of their processes and products throughout these experiences. At the end of each practicum, students will have developed a number of products by which the quality of their experiences and demonstrations of competencies can be assessed. They will work in collaboration with the practicum supervisor to assure that these assessments are conducted and reported.

Internship Guidelines

The internship experience represents the culmination of the student's formal course of study and previous assistantships and practica. Students are ready for internship when they have completed all formal course work with the exception of credits associated with the internship and dissertation. Students will be taking and paying for internship credits during this experience. Many students complete an assessment internship at another institution or organization such as a testing company in their third year of the program. A program faculty member serves as the internship coordinator and an on-site supervisor will be designated at the internship site. Students entering the program fall 2003 will have the option of an internship structured as either an on-campus or off-campus experience (on-campus internships are competitive and not guaranteed). For students who elect to stay at JMU their third year in the program, they will participate in on-campus assessment consultation, complete course work electives, and work on their dissertation.

Each student, along with his or her advisor, will complete an internship proposal form. The proposal will be reviewed and approved by the Assessment and Measurement core faculty members. While the nature of the internship need not be specifically related to the student's previous assistantship or practicum sites and experiences, it must provide an opportunity conducive for integration of previous learning, goals and objectives of the program, and demonstration of a wide variety of professional skills and competencies.

It is important to provide sufficient clarity concerning the requirements and expectations associated with a paid full-time internship. At the same time, the intent is not to constrain creativity or severely limit potentially useful sites, activities, or opportunities. Given the critical nature of the internship experience to the intern, the program, and the external agency, careful planning will be necessary to assure that each party understands and can meet the expectations of the other parties. In this spirit, the following expectations are offered as a general guide. Some negotiation will be necessary for each contract, and some responsibilities will therefore vary.

Responsibilities of the Intern:

- To collaborate with the program to identify the internship site and negotiate the contract with the agency
- To apply and integrate doctoral program experiences with the needs of the agency
- To develop and maintain professional relationships
- To seek, recognize, and benefit from professional development opportunities
- To communicate clearly and professionally at all times
- To seek and accept supervision from the agency and the program
- To document the internship experience
- To tailor an evaluation method by which the internship experience, processes, tasks, products, and outcomes can be assessed and reported
- To prepare appropriate documents and reports, though not specifically requested

Responsibilities of the program:

- To collaborate with the intern toward development of a written internship contract
- To establish a working relationship with the agency prior to intern placement
- To be accountable for the intern's preparation
- To provide consistent and professional consultation and supervision to the intern
- To maintain communication and understanding between the program and the agency
- To visit the agency at least once to assure expectations of all parties are being met
- To evaluate the internship experience, processes, and outcomes

Responsibilities of the External Agency:

- To provide a single professional full-time experience over a minimum of eight months
- To provide appropriate remuneration to the intern
- To provide professional level responsibilities and tasks to the intern
- To provide a listing of suitable professional tasks the intern would be expected to fulfill (e.g., general education method analysis, review of literature for available assessment methods, convert a paper and pencil method to a computerized version, etc.)
- To maintain communication with the program
- To provide clear expectations regarding tasks, processes, and outcomes
- To provide sufficient flexibility in intern's schedule and timelines to accommodate scholarship and research activities estimated at 8 hours per week
- To provide an environment (physical and intellectual) and resources (work space and equipment) conducive for professional demonstration of competencies
- To provide the best possible supervision to the intern

Dissertation

Each student will complete a dissertation which makes a unique contribution to the field of assessment and measurement. The manuscript should follow the APA style guide. The manuscript should have an introduction of the problem/significance of the study, literature review, data source (if appropriate), methods and procedures, results, discussion, implication, and recommendations. A dissertation should include quantitative methods, although it may be supported by qualitative methods.

Committee Organization

Dissertation committees consist of at least four members (including the chair). After selecting a dissertation topic, the student should choose a chair (or co-chairs) who agrees and has the expertise to supervise the dissertation. In consultation with the chair, the student will choose other committee members. There should be at least three Assessment & Measurement core program faculty members (including the chair) and one member external to the core program. The chair and at least two other committee members must be members of the graduate faculty. No more than one-third of the committee members may be non-graduate faculty, graduate instructors, or professionals from outside the university.

Deadlines

Comprehensive exams must be successfully completed before the dissertation defense. Within one year of passing comprehensives and within the first five years of graduate coursework, the student must present a committee-accepted proposal. The student is expected to complete the defense of the dissertation within two years from the time of the comprehensive exams. Otherwise, the student may need to take new comprehensive exams. Note that the student is responsible for keeping abreast of and meeting deadlines specified by the graduate school.

Graduate School Policies

Students should obtain a copy of the graduate school's Thesis/Dissertation Manual (available at the campus bookstore) early in the dissertation process. This manual contains detailed information on formatting, steps in the dissertation process, and necessary forms.

Proposal and Defense meetings

When the student has drafted a dissertation plan approved by the chair, the dissertation committee will meet to discuss and approve/disapprove the proposal. At least one week prior to the meeting, the student should provide copies of the proposal to committee members. The proposal must describe the problem, summarize relevant literature, outline the procedures to be followed, and discuss the significance of the proposed dissertation. No data may be collected before the proposal has been approved and any necessary Institutional Review Board (IRB) approval has been granted.

When the student has completed writing the dissertation and the chair has approved the final draft, a dissertation defense will be scheduled. Public notice of the dissertation defense will be distributed as a general invitation for anyone to attend. Copies of the dissertation should be distributed to the committee at least two weeks prior to the defense. Committee members are encouraged to submit to the chair any serious concerns about the student's preparation to defend. At the defense, the student presents a summary of the dissertation, followed by comments and questions from audience members. Committee members will then meet privately with the student for further questions. After the defense is concluded, the dissertation committee meets privately to reach a decision. They may decide that the dissertation should be accepted, accepted contingent on specific revisions, or not accepted at this time. If the dissertation is accepted contingent on revisions, the committee chair is responsible for certifying these revisions. The chair may rely on the judgment of other committee members as appropriate. If the dissertation is not accepted, the student and committee (as individuals or as a group) will work out a plan for further work the student should do before attempting another defense.

After all changes have been approved and the dissertation has been submitted to the graduate college, it is customary for the student to have copies bound for the dissertation committee members.

Enrollment Requirement

Students should be enrolled during the semester they defend. Students who have completed all coursework/internship and all 9 required dissertation hours must register for PSY899 (dissertation continuance) each term until the semester the dissertation is completed.

Grievances

Any grievances about the dissertation process up to and including the defense must first be taken to the chair of the committee. If the student or committee member judges the matter to remain unresolved, then the grievance may be presented to the program coordinator. If necessary, appeals may be brought to the program committee.

Professional Ethics and Standards

This section contains the Code of Professional Responsibilities in Educational Measurement prepared by NCME. It is also available on the Internet at http://www.natd.org/Code_of_Professional_Responsibilities.html

Code of Professional Responsibilities in Educational Measurement

Prepared by the NCME Ad Hoc Committee on the Development of a Code of Ethics:

Cynthia B. Schmeiser, ACT--Chair

Kurt F. Geisinger, State University of New York

Sharon Johnson-Lewis, Detroit Public Schools

Edward D. Roeber, Council of Chief State School Officers

William D. Schafer, University of Maryland

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Any portion of this Code may be reproduced and disseminated for educational purposes.

As an organization dedicated to the improvement of measurement and evaluation practice in education, the National Council on Measurement in Education (NCME) has adopted this Code to promote professionally responsible practice in educational measurement. Professionally responsible practice is conduct that arises from either the professional standards of the field, general ethical principles, or both.

The purpose of the Code of Professional Responsibilities in Educational Measurement, hereinafter referred to as the Code, is to guide the conduct of NCME members who are involved in any tinge of assessment activity in education. NCME is also providing this Code as a public service for all individuals who are engaged in educational assessment activities in the hope that these activities will be conducted in a professionally responsible manner. Persons who engage in these activities include local educators such as classroom teachers, principals, and superintendents; professionals such as school psychologists and counselors; state and national technical, legislative, and policy staff in education; staff of research, evaluation, and testing organizations; providers of test preparation services; college and university faculty and administrators; and professionals in business and industry who design and implement educational and training programs.

This Code applies to any type of assessment that occurs as part of the educational process, including formal and informal, traditional and alternative techniques for gathering information used in making educational decisions at all levels. These techniques include, but are not limited to, large-scale assessments at the school, district, state, national, and international levels; standardized tests; observational measures; teacher-conducted assessments; assessment support materials; and other achievement, aptitude, interest, and personality measures used in and for education.

Although NCME is promulgating this Code for its members, it strongly encourages other organizations and individuals who engage in educational assessment activities to endorse and abide by the responsibilities relevant to their professions. Because the Code pertains

only to uses of assessment in education, it is recognized that uses of assessments outside of educational contexts, such as for employment, certification, or licensure, may involve additional professional responsibilities beyond those detailed in this Code.

The Code is intended to serve an educational function: to inform and remind those involved in educational assessment of their obligations to uphold the integrity of the manner in which assessments are developed, used, evaluated, and marketed. Moreover, it is expected that the Code will stimulate thoughtful discussion of what constitutes professionally responsible assessment practice at all levels in education.

The Code enumerates professional responsibilities in eight major areas of assessment activity. Specifically, the Code presents the professional responsibilities of those who:

- 1) Develop Assessments
- 2) Market and Sell Assessments
- 3) Select Assessments
- 4) Administer Assessments
- 5) Score Assessments
- 6) Interpret, Use, and Communicate Assessment Results
- 7) Educate About Assessment
- 8) Evaluate Programs and Conduct Research on Assessments

Although the organization of the Code is based on the differentiation of these activities, they are viewed as highly interrelated, and those who use this Code are urged to consider the Code in its entirety. The index following this Code provides a listing of some of the critical interest topics within educational measurement that focus on one or more of the assessment activities.

General Responsibilities

The professional responsibilities promulgated in this Code in eight major areas of assessment activity are based on expectations that NCME members involved in educational assessment will:

- 1) protect the health and safety of all examinees;
- 2) be knowledgeable about, and behave in compliance with, state and federal laws relevant to the conduct of professional activities;
- 3) maintain and improve their professional competence in educational assessment;
- 4) provide assessment services only in areas of their competence and experience, affording full disclosure of their professional qualifications;
- 5) promote the understanding of sound assessment practices in education;
- 6) adhere to the highest standards of conduct and promote professionally responsible conduct within educational institutions and agencies that provide educational services; and
- 7) perform all professional responsibilities with honesty, integrity, due care, and fairness.

Responsible professional practice includes being informed about and acting in accordance with the Code of Fair Testing Practices in Education (Joint Committee on Testing Practices, 1988), the Standards for Educational and Psychological Testing (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1985), or subsequent revisions, as well as all applicable state and federal laws that may govern the development, administration, and use of assessments. Both the Standards for Educational and Psychological Testing and the Code of Fair Testing Practices in Education are intended to establish criteria for judging the technical adequacy of tests and the appropriate uses of tests and test results. The purpose of this Code is to describe the professional responsibilities of those individuals who are engaged in assessment activities. As would be expected, there is a strong relationship between professionally responsible practice and sound educational assessments, and this Code is intended to be consistent with the relevant parts of both of these documents.

It is not the intention of NCME to enforce the professional responsibilities stated in the Code or to investigate allegations of violations to the Code.

Since the Code provides a frame of reference for the evaluation of the appropriateness of behavior, NCME recognizes that the Code may be used in legal or other similar proceedings.

Section 1: Responsibilities of Those Who Develop Assessment Products and Services

Those who develop assessment products and services, such as classroom teachers and other assessment specialists, have a professional responsibility to strive to produce assessments that are of the highest quality. Persons who develop assessments have a professional responsibility to:

- 1.1 Ensure that assessment products and services are developed to meet applicable professional, technical, and legal standards.
- 1.2 Develop assessment products and services that are as free as possible from bias due to characteristics irrelevant to the construct being measured, such as gender, ethnicity, race, socioeconomic status, disability, religion, age, or national origin.
- 1.3 Plan accommodations for groups of test takers with disabilities and other special needs when developing assessments.
- 1.4 Disclose to appropriate parties any actual or potential conflicts of interest that might influence the developers' judgment or performance.
- 1.5 Use copyrighted materials in assessment products and services in accordance with state and federal law.
- 1.6 Make information available to appropriate persons about the steps taken to develop and score the assessment, including up-to-date information used to support the reliability, validity, scoring and reporting processes, and other relevant characteristics of the assessment.
- 1.7 Protect the rights to privacy of those who are assessed as part of the assessment development process.

- 1.8 Caution users, in clear and prominent language, against the most likely misinterpretations and misuses of data that arise out of the assessment development process.
- 1.9 Avoid false or unsubstantiated claims in test preparation and program support materials and services about an assessment or its use and interpretation.
- 1.10 Correct any substantive inaccuracies in assessments or their support materials as soon as feasible.
- 1.11 Develop score reports and support materials that promote the understanding of assessment results.

Section 2: Responsibilities of Those Who Market and Sell Assessment Products and Services

The marketing of assessment products and services, such as tests and other instruments, scoring services, test preparation services, consulting, and test interpretive services, should be based on information that is accurate, complete, and relevant to those considering their use. Persons who market and sell assessment products and services have a professional responsibility to:

- 2.1 Provide accurate information to potential purchasers about assessment products and services and their recommended uses and limitations.
- 2.2 Not knowingly withhold relevant information about assessment products and services that might affect an appropriate selection decision.
- 2.3 Base all claims about assessment products and services on valid interpretations of publicly available information.
- 2.4 Allow qualified users equal opportunity to purchase assessment products and services.
- 2.5 Establish reasonable fees for assessment products and services.
- 2.6 Communicate to potential users, in advance of any purchase or use, all applicable fees associated with assessment products and services.
- 2.7 Strive to ensure that no individuals are denied access to opportunities because of their inability to pay the fees for assessment products and services.
- 2.8 Establish criteria for the sale of assessment products and services, such as limiting the sale of assessment products and services to those individuals who are qualified for recommended uses and from whom proper uses and interpretations are anticipated.
- 2.9 Inform potential users of known inappropriate uses of assessment products and services and provide recommendations about how to avoid such misuses.
- 2.10 Maintain a current understanding about assessment products and services and their appropriate uses in education.
- 2.11 Release information implying endorsement by users of assessment products and services only with the users' permission.
- 2.12 Avoid making claims that assessment products and services have been endorsed by another organization unless an official endorsement has been obtained.
- 2.13 Avoid marketing test preparation products and services that may cause individuals to receive scores that misrepresent their actual levels of attainment.

Section 3: Responsibilities of Those Who Select Assessment Products and Services

Those who select assessment products and services for use in educational settings, or help others do so, have important professional responsibilities to make sure that the assessments are appropriate for their intended use. Persons who select assessment products and services have a professional responsibility to:

- 3.1 Conduct a thorough review and evaluation of available assessment strategies and instruments that might be valid for the intended uses.
- 3.2 Recommend and/or select assessments based on publicly available documented evidence of their technical quality and utility rather than on unsubstantiated claims or statements.
- 3.3 Disclose any associations or affiliations that they have with the authors, test publishers, or others involved with the assessments under consideration for purchase and refrain from participation if such associations might affect the objectivity of the selection process.
- 3.4 Inform decision makers and prospective users of the appropriateness of the assessment for the intended uses, likely consequences of use, protection of examinee rights, relative costs, materials and services needed to conduct or use the assessment, and known limitations of the assessment, including potential misuses and misinterpretations of assessment information.
- 3.5 Recommend against the use of any prospective assessment that is likely to be administered, scored, and used in an invalid manner for members of various groups in our society for reasons of race, ethnicity, gender, age, disability, language background, socioeconomic status, religion, or national origin.
- 3.6 Comply with all security precautions that may accompany assessments being reviewed.
- 3.7 Immediately disclose any attempts by others to exert undue influence on the assessment selection process.
- 3.8 Avoid recommending, purchasing, or using test preparation products and services that may cause individuals to receive scores that misrepresent their actual levels of attainment.

Section 4: Responsibilities of Those Who Administer Assessments

Those who prepare individuals to take assessments and those who are directly or indirectly involved in the administration of assessments as part of the educational process, including teachers, administrators, and assessment personnel, have an important role in making sure that the assessments are administered in a fair and accurate manner. Persons who prepare others for, and those who administer, assessments have a professional responsibility to:

- 4.1 Inform the examinees about the assessment prior to its administration, including its purposes, uses, and consequences; how the assessment information will be judged or scored; how the results will be kept on file; who will have access to the results; how

the results will be distributed; and examinees' rights before, during, and after the assessment.

- 4.2 Administer only those assessments for which they are qualified by education, training, licensure, or certification.
- 4.3 Take appropriate security precautions before, during, and after the administration of the assessment.
- 4.4 Understand the procedures needed to administer the assessment prior to administration.
- 4.5 Administer standardized assessments according to prescribed procedures and conditions and notify appropriate persons if any nonstandard or delimiting conditions occur.
- 4.6 Not exclude any eligible student from the assessment.
- 4.7 Avoid any conditions in the conduct of the assessment that might invalidate the results.
- 4.8 Provide for and document all reasonable and allowable accommodations for the administration of the assessment to persons with disabilities or special needs.
- 4.9 Provide reasonable opportunities for individuals to ask questions about the assessment procedures or directions prior to and at prescribed times during the administration of the assessment.
- 4.10 Protect the rights to privacy and due process of those who are assessed.
- 4.11 Avoid actions or conditions that would permit or encourage individuals or groups to receive scores that misrepresent their actual levels of attainment.

Section 5: Responsibilities of Those Who Score Assessments

The scoring of educational assessments should be conducted properly and efficiently so that the results are reported accurately and in a timely manner. Persons who score and prepare reports of assessments have a professional responsibility to:

- 5.1 Provide complete and accurate information to users about how the assessment is scored, such as the reporting schedule, scoring process to be used, rationale for the scoring approach, technical characteristics, quality control procedures, reporting formats, and the fees, if any, for these services.
- 5.2 Ensure the accuracy of the assessment results by conducting reasonable quality control procedures before, during, and after scoring.
- 5.3 Minimize the effect on scoring of factors irrelevant to the purposes of the assessment.
- 5.4 Inform users promptly of any deviation in the planned scoring and reporting service or schedule and negotiate a solution with users.
- 5.5 Provide corrected score results to the examinee or the client as quickly as practicable should errors be found that may affect the inferences made on the basis of the scores.
- 5.6 Protect the confidentiality of information that identifies individuals as prescribed by state and federal law.
- 5.7 Release summary results of the assessment only to those persons entitled to such information by state or federal law or those who are designated by the party contracting for the scoring services.

5.8 Establish, where feasible, a fair and reasonable process for appeal and rescoring the assessment.

Section 6: Responsibilities of Those Who Interpret, Use, and Communicate Assessment Results

The interpretation, use, and communication of assessment results should promote valid inferences and minimize invalid ones. Persons who interpret, use, and communicate assessment results have a professional responsibility to:

- 6.1 Conduct these activities in an informed, objective, and fair manner within the context of the assessment's limitations and with an understanding of the potential consequences of use.
- 6.2 Provide to those who receive assessment results information about the assessment, its purposes, its limitations, and its uses necessary for the proper interpretation of the results.
- 6.3 Provide to those who receive score reports an understandable written description of all reported scores, including proper interpretations and likely misinterpretations.
- 6.4 Communicate to appropriate audiences the results of the assessment in an understandable and timely manner, including proper interpretations and likely misinterpretations.
- 6.5 Evaluate and communicate the adequacy and appropriateness of any norms or standards used in the interpretation of assessment results.
- 6.6 Inform parties involved in the assessment process how assessment results may affect them.
- 6.7 Use multiple sources and types of relevant information about persons or programs whenever possible in making educational decisions.
- 6.8 Avoid making, and actively discourage others from making, inaccurate reports, unsubstantiated claims, inappropriate interpretations, or otherwise false and misleading statements about assessment results.
- 6.9 Disclose to examinees and others whether and how long the results of the assessment will be kept on file, procedures for appeal and rescoring, rights examinees and others have to the assessment information, and how those rights may be exercised.
- 6.10 Report any apparent misuses of assessment information to those responsible for the assessment process.
- 6.11 Protect the rights to privacy of individuals and institutions involved in the assessment process.

Section 7: Responsibilities of Those Who Educate Others About Assessment

The process of educating others about educational assessment, whether as part of higher education, professional development, public policy discussions, or job training, should prepare individuals to understand and engage in sound measurement practice and to become discerning users of tests and test results. Persons who educate or inform others about assessment have a professional responsibility to:

- 7.1 Remain competent and current in the areas in which they teach and reflect that in their instruction.
- 7.2 Provide fair and balanced perspectives when teaching about assessment.
- 7.3 Differentiate clearly between expressions of opinion and substantiated knowledge when educating others about any specific assessment method, product, or service.
- 7.4 Disclose any financial interests that might be perceived to influence the evaluation of a particular assessment product or service that is the subject of instruction.
- 7.5 Avoid administering any assessment that is not part of the evaluation of student performance in a course if the administration of that assessment is likely to harm any student.
- 7.6 Avoid using or reporting the results of any assessment that is not part of the evaluation of student performance in a course if the use or reporting of results is likely to harm any student.
- 7.7 Protect all secure assessments and materials used in the instructional process.
- 7.8 Model responsible assessment practice and help those receiving instruction to learn about their professional responsibilities in educational measurement.
- 7.9 Provide fair and balanced perspectives on assessment issues being discussed by policymakers, parents, and other citizens.

Section 8: Responsibilities of Those Who Evaluate Educational Programs and Conduct Research on Assessments

Conducting research on or about assessments or educational programs is a key activity in helping to improve the understanding and use of assessments and educational programs. Persons who engage in the evaluation of educational programs or conduct research on assessments have a professional responsibility to:

- 8.1 Conduct evaluation and research activities in an informed, objective, and fair manner.
- 8.2 Disclose any associations that they have with authors, test publishers, or others involved with the assessment and refrain from participation if such associations might affect the objectivity of the research or evaluation.
- 8.3 Preserve the security of all assessments throughout the research process as appropriate.
- 8.4 Take appropriate steps to minimize potential sources of invalidity in the research and disclose known factors that may bias the results of the study.
- 8.5 Present the results of research, both intended and unintended, in a fair, complete, and objective manner.
- 8.6 Attribute completely and appropriately the work and ideas of others.
- 8.7 Qualify the conclusions of the research within the limitations of the study.
- 8.8 Use multiple sources of relevant information in conducting evaluation and research activities whenever possible.

8.9 Comply with applicable standards for protecting the rights of participants in an evaluation or research study, including the rights to privacy and informed consent.

Afterword

As stated at the outset, the purpose of the Code of Professional Responsibilities in Educational Measurement is to serve as a guide to the conduct of NCME members who are engaged in any type of assessment activity in education. Given the broad scope of the field of educational assessment as well as the variety of activities in which professionals may engage, it is unlikely that any code will cover the professional responsibilities involved in every situation or activity in which assessment is used in education. Ultimately, it is hoped that this Code will serve as the basis for ongoing discussions about what constitutes professionally responsible practice. Moreover, these discussions will undoubtedly identify areas of practice that need further analysis and clarification in subsequent editions of the Code. To the extent that these discussions occur, the Code will have served its purpose.

To assist in the ongoing refinement of the Code, comments on this document are most welcome. Please send your comments and inquiries to:

Dr. William J. Russell
Executive Officer
National Council on Measurement in Education
1230 Seventeenth Street, NW
Washington, DC 20036-3078

Supplementary Resources

The following list of resources is provided for those who want to seek additional information about codes of professional responsibility that have been developed and adopted by organizations having an interest in various aspects of educational assessment.

American Association for Counseling and Development (now American Counseling Association). (1988). *Ethical standards of the American Counseling Association*. Alexandria, VA: Author.

American Association for Counseling and Development (now American Counseling Association) & Association for Measurement and Evaluation in Counseling and Development (now Association for Assessment in Counseling). (1989). *Responsibilities of users of standardized tests: (RUST) statement revised*. Alexandria, VA: Author.

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1985). *Standards for educational and psychological testing*. Washington, DC: Author.

American Educational Research Association. (1992). Ethical standards of the American Educational Research Association. *Educational Researcher*, 21(7), 23-26.

American Federation of Teachers, National Council on Measurement in Education, & National Education Association. (1990). Standards for teacher competence in educational assessment of students. Washington, DC: Author.

American Psychological Association. (1992). Ethical principles of psychologists and code of conduct. Washington, DC: Author.

American Psychological Association President's Task Force on Psychology in Education. (in press). Learner-centered psychological principles: Guidelines for school redesign and reform. Washington, DC: Author.

Joint Advisory Committee. (1993). Principles for fair assessment practices for education in Canada. Edmonton, Alberta: Author.

Joint Committee on Testing Practices. (1988). Code of fair testing practices in education. Washington, DC: Author.

Joint Committee on Standards for Educational Evaluation. (1988). The personnel evaluation standards: How to assess systems for evaluating educators. Newberry Park, CA: Sage.

Joint Committee on Standards for Educational Evaluation. (1994). The program evaluation standards: How to assess evaluations of educational programs. Thousand Oaks, CA: Sage.

National Association of College Admission Counselors. (1988). Statement of principles of good practice. Alexandria, VA: Author.

Index to the Code of Professional Responsibilities in Educational Measurement

This index provides a list of major topics and issues addressed by the responsibilities in each of the eight sections of the Code. Although this list is not intended to be exhaustive, it is intended to serve as a reference source for those who use this code.

Advertising: 1.9, 1.10, 2.3, 2.11, 2.12
 Bias: 1.2, 3.5, 4.5, 4.7, 5.3, 8.4
 Cheating: 4.5, 4.6, 4.11
 Coaching and Test Preparation: 2.13, 3.8, 4.11
 Competence: 2.10, 4.2, 4.4, 4.5, 5.2, 5.5, 7.1, 7.8, 7.9, 8.1, 8.7
 Conflict of Interest: 1.4, 3.3, 7.4, 8.2
 Consequences of Test Use: 3.4, 6.1, 6.6, 7.5, 7.6
 Copyrighted Materials, Use of: 1.5, 8.6
 Disabled Examinees, Rights of: 1.3, 4.8

Disclosure: 1.6, 2.1, 2.2, 2.6, 3.3, 3.7, 4.1, 5.1, 5.4, 6.2, 6.3, 6.4, 6.6, 6.9, 8.2, 8.4, 8.5

Due Process: 4.10, 5.8, 6.9

Equity: 1.2, 2.4, 2.7, 3.5, 4.6

Fees: 2.5, 2.6, 2.7

Inappropriate Test Use: 1.8, 2.8, 2.9, 3.4, 6.8, 6.10

Objectivity: 3.1, 3.2, 3.3, 6.1, 6.5, 7.2, 7.3, 7.9, 8.1, 8.2, 8.5, 8.7

Rights to Privacy: 1.7, 3.4, 4.10, 5.6, 5.7, 6.11, 8.9

Security: 3.6, 4.3, 7.7, 8.3

Truthfulness: 1.10, 2.1, 2.2, 2.3, 2.11, 2.12, 3.2, 4.6, 7.3

Undue Influence: 3.7

Unsubstantiated Claims: 1.9, 3.2, 6.8

General Description of the Harrisonburg-Rockingham County Community

Harrisonburg, VA is a progressive and growing community situated in the center of the beautiful and historic Shenandoah Valley. With the Blue Ridge Mountains on the east and the Allegheny Mountains on the west providing protection, the area is generally free from climate extremes. The Valley floor itself is at an elevation of 1,000 feet while the city's elevation is 1,329. Harrisonburg is the center of commerce and travel for the area and is known for its poultry industry. Established in 1780, the city was named for Thomas Harrison, who donated the land for the Rockingham County courthouse. Harrisonburg became the permanent county seat of Rockingham County in 1781 and was incorporated in 1849. The city currently encompasses 17.3 square miles and was deemed a city of the first class in April 1990. With a 2000 population of 40,468, Harrisonburg is approximately equidistant from Washington D.C. (124 miles), Richmond, VA (116 miles) and Roanoke, VA (111 miles).

The area is an educational center served by four institutions of post-secondary learning with a total enrollment of approximately 21,498 students. In addition to James Madison University (15,612), Eastern Mennonite University and Seminary, a private institution with approximately 1,429 students, is also located in the city. Bridgewater College, located just south of the city, is also private and has an approximate enrollment of 1,260 students. State-supported Blue Ridge Community College is located just south of the city and has an enrollment of approximately 3,197 students. Rockingham Memorial Hospital and the affiliated cancer center are located in the city and are equipped with modern facilities, with 258 beds and 28 bassinets. There are 155 doctors on staff, with 258 full-time and 148 part-time registered nurses employed at the hospital.

Air, rail, and bus transportation are available in the area. U.S. Air Express operates out of the Shenandoah Valley Regional Airport in Weyers Cave, VA and provides both passenger and freight service. There are several private airfields situated in the area including Air Park located in Bridgewater, VA. The region is served by the Norfolk Southern Corporation Railroad, and there are locally-based private and common carriers serving the area with general freight and specialties. Parcel post services are available for shopping, mailing, and delivery service. Interstate 81 runs north and south through the area and intersects with Interstate 64 at nearby Staunton, VA.

General Description of the University

Mission

We are committed to preparing students to be enlightened and educated citizens who will lead productive and meaningful lives.

History

Since its founding in 1908, JMU has grown from a state normal and industrial school for women to today's coeducational comprehensive university with an enrollment of approximately 15,000.

Dr. Linwood H. Rose has been president of JMU since September 1998. He is only the fifth president in the university's long history. Before being named president, Rose served as a member of the institution's administration for 23 years, including service as executive vice president and chief operating officer.

The University was established by the Virginia General Assembly in 1908 as the State Normal and Industrial School for Women at Harrisonburg. In 1914, the name of the University was changed to the State Normal School for Women at Harrisonburg. Authorization to award bachelor's degrees was granted in 1916. In 1924, the University became the State Teachers College at Harrisonburg and continued under that name until 1938, when it was named Madison College in honor of the fourth president of the United States. In 1977, the University's name was changed to James Madison University. During Dr. G. Tyler Miller's administration, JMU's third president, from 1949 to 1970, the campus was enlarged by 240 acres and 19 buildings were constructed. Major curriculum changes were made and the University was authorized to grant master's degrees in 1954. In 1966, by action of the Virginia General Assembly, the University became a coeducational institution.

In 1966, by action of the Virginia General Assembly, the university became a coeducational institution. Dr. Ronald E. Carrier, JMU's fourth president, headed the institution from 1971 to 1998. During Carrier's administration, student enrollment and the number of faculty and staff tripled, doctoral programs were authorized, more than 20 major campus buildings were constructed and the university was recognized repeatedly by national publications as one of the finest institutions of its type in America.

The first JMU doctoral program was initiated in the fall of 1994. Offering the Ph.D. degree in Clinical, School, and Counseling Psychology, the program is fully accredited by the American Psychological Association, the National Council for Accreditation of Teacher Education, and the Southern Association of Colleges and Schools. The second doctoral program at JMU—a Ph.D. program in assessment and measurement—was approved in the spring of 1998.

University Organization

James Madison University is a coeducational state-aided university governed by its own board of visitors. The board consists of 15 members appointed by the governor and a non-voting student member appointed by the board. The president of the University, appointed by the board of visitors, is responsible for the administration of

James Madison University. The president is assisted in the administration of the University by the executive vice president, who is responsible for the University's administration and finance division; the divisional vice presidents for academic affairs, student affairs and university advancement; the director of intercollegiate athletics; and the executive assistant to the president.

The President. The president is the chief administrative official of the university. Procedures have been established to enable the president to receive advice and recommendations from the various constituencies on campus. The process allows for the presentation of ideas and recommendations by faculty, students, or administrative personnel through committees, commissions, or the University Council.

The University Council. The membership of the University Council consists of the following persons: all division vice presidents, all provosts and deans, the director of libraries, the executive assistant to the president, all university commission and council chairs, the speaker of the Faculty Senate, five faculty senators, the president and the vice president of the Student Government Association, the president of the Honor Council, the chair of the University Program Board and one graduate student. The president of the university serves as the chair and a secretary is appointed. Specifically, the functions of the University Council are to advise the president of the University on matters of University governance; to implement the functions and exercise the authority delegated to it by the president of the University; to review and make recommendations on matters proposed by the faculty, staff, and students or through the Faculty Senate, Student Government Association, commissions or committees; and to refer appropriate matters to the Faculty Senate, Student Government Association, commissions, committees, groups or individuals for consideration and recommendations.

Statement of Community Values

James Madison University is an academic community dedicated to the highest standards of scholarship and the protection of academic freedom. Common values of the JMU community include the following:

1. Freedom of intellectual inquiry in the pursuit of truth
2. The importance of personal integrity
3. The right of every individual to be treated with dignity and respect at all times
4. The acceptance and appreciation of diversity in our community with regard to age, disability, ethnicity, gender, national origin, race, religion, sexual orientation, and political affiliation.

Useful Resources for Students

Bookstore

Phone: 568.6121

The bookstore is located across the parking lot from Godwin Hall. Completed in 2003, this bookstore offers 28,100 sq. ft. of the latest resources and technology-expanded text department, expanded general book department, expanded computer department, a reading room and wireless access.

<http://www.jmu.edu/bookstore/>

Tip: Some students have found it easier and cheaper to order books online from companies like Amazon.com or eFollets.com.

Card Services

Phone: 568.6446

Card Services is where you get your JMU student ID. It is located on the third floor of Warren Hall (directly off the patio).

Tip: Try your best to get your card before the undergraduate students come back from summer vacation. You must be registered for at least one class before they will give you an ID card.

Carrier Library

Phone: 568-6267

Tip: Trips to the library can often be avoided by using the resources on the library web page (<http://www.lib.jmu.edu/>). Pay special attention to the online databases and interlibrary loan. The online databases allow you to do literature searches at any computer (sometimes limited to any JMU computer). Interlibrary loan is a service offered by the library that helps you get access to other libraries' holdings. The service is free and requests can be made over the web.

Graduate School

Phone: 568-6131.

The Graduate School office can be a useful resource but most graduate student issues/questions are handled through the Assessment and Measurement program coordinator.

Tip: The Graduate School office is located on Grace Street near the Center for Assessment. Get directions from anyone here at CARS

Health Center

Phone: 568-6177

The Health Center is a typical university health center. It is located on JMU's main campus near Rockingham Memorial Hospital.

HelpDesk

Phone: 568.3555.

The HelpDesk is located in Frye. The HelpDesk can answer questions about computer problems and is also in charge of setting up personal computer accounts.

Tip: You need to go to Frye to set up personal computer accounts. Falcon, for instance, is the account that must be opened if you want to put up a personal web page. Many things can be handled over the web without actually going to Frye. To set up your e-mail account visit <http://www.jmu.edu/accounts>.

Off-Campus Life

Phone: 568-6071

Off-Campus Life is located in Taylor Hall. It has a lot of resources useful for students in off-campus housing.

Tip: The web site, <http://web.jmu.edu/ocl/>, is nearly as useful as anything at the office.

University Recreation (UREC)

Phone: 568-UREC (8732) Hotline Number

The hotline is available 24 hours a day and provides basic information like hours of operation.

Phone: 568-8700, Administration

The administration line gets you in touch with a UREC representative who can answer questions.

Tip: You can get a yearlong pass to UREC for your significant other for only five dollars, the only stipulation being that you must share a residence with that person. Talk to someone at the 8700 number for details.

University Parking

Phone: 568-3300

The parking office is on the ground floor of the new parking deck near Godwin Hall.

Tip: Get your permit before undergraduates come back from summer vacation. Permits cost 76 dollars per semester or \$152 per year (2005-2006 prices – 2006-2007 not yet posted). You must have your car's registration with you when you get your permit. Tickets for parking without a permit are \$100.