New Course Request

Indiana University

IN Campus

Check Appropriate Boxes: Undergraduate credit [ ] Graduate credit [X] Professional credit [ ]

1. School/Division: Pediatrics - Adolescent Medicine
2. Academic Subject Code: GRAD

3. Course Number: 6620 (must be cleared with University Enrollment Services)
4. Instructor: 

5. Course Title: Research Topics in Adolescent Health

Recommended Abbreviation (Optional) 

(Limited to 32 Characters including spaces)

6. First time this course is to be offered (Semester/Year): 

7. Credit Hours: Fixed at _______ or Variable from _______ to _______

8. Is this course to be graded S-F (only)? Yes [X] No [ ]

9. Is variable title approval being requested? Yes [X] No [ ]

10. Course description (not to exceed 50 words) for Bulletin publication: This course is an introduction to research in adolescent health and will cover biological, developmental, and behavioral processes that affect adolescent health research, as well as the methodological and ethical challenges of conducting research with adolescents. The course is targeted to the advanced graduate student and clinical or research based post doctoral fellows.

11. Lecture Contact Hours: Fixed at _______ or Variable from _______ to _______

12. Non-Lecture Contact Hours: Fixed at _______ or Variable from _______ to _______

13. Estimated enrollment: 2-8, of which 100% percent are expected to be graduate students.


15. Justification for new course: There are currently zero courses at either IUPUI or Bloomington on adolescent health research. This will be used to fulfill IUB's requirement for postdocs and fellows.

16. Are the necessary reading materials currently available in the appropriate library? Yes [X] No [ ]

17. Please append a complete outline of the proposed course, and indicate instructor (if known), textbooks, and other materials.

18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant.

19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of the new course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by: 

Department Chairman/Division Director: 

Date: April 15, 2010

Approved by: 

Dean: 

Date: 4/26/10

Chancellor/Vice-President: 

Date: 

University Enrollment Services: 

Date: 

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.
April 5, 2010

Sherry F. Queener, Ph.D.
Director of the Graduate Office, IUPUI
Associate Dean of the Indiana University Graduate School

Dear Dr. Queener,

Please find attached documents describing a proposed course "Research Topics in Adolescent Health, GRAD G620" for consideration by the GAC. The materials include a letter from Nursing indicating that there is no conflict with their offerings.

A paper copy with the form will be sent to your office.

Thank you for your consideration,

[Signature]

Simon J. Rhodes, Ph.D.
Associate Dean for Graduate Studies
Indiana University School of Medicine
srhodes@iupui.edu
New Course Request

I. Title: Research Topics in Adolescent Health
Course Number: G-620
Course Director: Mary A. Ott, MD
Prerequisites: Enrolled in a graduate degree program, post-doctoral program, or graduate medical education program, and permission of the instructor
Credits: 3 credits for a 1 semester course (3 seminar hrs/week).

II. COURSE DESCRIPTION AND RATIONALE
Adolescent medicine occupies a unique niche within the research realm – adolescents are no longer children and not yet adults. There are important developmental aspects of biology (e.g. puberty, insulin resistance, etc.), cognitive capacity, psychology and emotion, and legal and social circumstances that are unique to adolescents. An understanding of these developmental aspects of adolescence is important for research with this age group.

This course will provide the student or fellow with an ability to evaluate issues in conducting research and initiate research with adolescents. Key to this training is an ability to integrate how adolescent development in the above realms (biologic, cognitive, psychological, social, legal) influences research questions, research design, methodology, research ethics, and interpretation of research findings. The course will use a topical approach whereby specific issues are demonstrated in readings drawn from published research articles and texts focused on adolescent health.

Short description: This course is an introduction to research in adolescent health and will cover biological, developmental, and behavioral processes that affect adolescent health research, and the methodological and ethical challenges of conducting research on adolescents. The course is targeted to the advanced graduate student and clinical or research based postdoctoral fellows.

III. EDUCATIONAL OBJECTIVES
The overall goal of this course is apply basic principles of adolescent biological, cognitive, psychological and social development to behavioral and biomedical research with adolescents.

By the end of this course, the student will be able to:

1. Distinguish biological, cognitive, psychological and social development of early (11-14 year old), middle (15-17 year old), and late (18-21 year old) adolescents.

2. Adapt behavioral research methods, including surveys and interviews, to the developmental capacity of a middle adolescent population.
3. Integrate research design and analytic methods that allow an investigator to examine developmental changes over time.

4. Identify and apply different research design and analytic methods that will allow an investigator to examine the role of contextual, social, and family factors in adolescent health behavior, including the use of dyadic data, clustered sampling, and geographic methods.

5. Analyze ethical dimensions of an adolescent research protocol, including (1) informed consent and parental permission, (2) assessment of research risks and benefits, and (3) compliance with ethical principles and federal regulatory standards.

6. Contrast different randomized designs, including group randomization, for a clinical trial of a behavioral intervention.

7. Describe, differentiate and criticize three different approaches to community engagement in adolescent research, including community advisory boards, community consultation, and community co-investigators.

8. Apply confidentiality protections to research on sensitive issues with adolescents.

IV. Course Content

Weekly readings will be from distributed articles. The intent of this course is to stimulate discussion and foster interaction among class participants to consider the implications of course topics on research with adolescents.

**Week 1: Introduction to Adolescent Health and Basic Biology & Puberty.** The first hour of class will cover definitions of adolescent health and overview of the process of conducting research with adolescents will be discussed. In the second two hours of class, the biological processes associated with puberty will be discussed, as well as the implications of basic biological development on biomedical research. Participants will learn how this period of development impacts various aspects of adolescent health.

**Weeks 2-3: Adolescent Cognitive, Psychological, and Social Development – Implications for Research.** Concepts of adolescent psychological and cognitive development will be discussed. The participants will understand the nature of cognitive development during adolescents, and recognize how specific aspects of cognition (e.g. impulsivity, risk-taking, etc.) relate to adolescent health research.

**Weeks 4-5: Applying Behavioral Research Methods to Adolescents.** The use of quantitative research methods in behavioral science will be discussed, including observational, longitudinal, and experimental study designs, data collection (e.g. electronic and paper surveys, daily diaries, personal interviews) and measurement of complex behavioral constructs (especially the use of scales) will be covered.
Participants will recognize the challenges of applying behavioral research methods to adolescents.

**Week 6-7. Analytic Approaches to Behavioral Research Data with Adolescents.** Adapting analytic approaches to adolescent behavioral data will be discussed, starting with analytic approaches to basic cross sectional data and moving towards longitudinal analytic approaches, such as survival analysis. It is expected that the student will have completed a course in basic biostatistics, and these sessions will focus on adaptations specific to adolescents. The second week will discuss adaptations of more complex longitudinal techniques, such as the use of mixed models, structural equation modeling, and growth curves, to capture developmental change.

**Week 8. Biomedical Research and Clinical Trials with Adolescents.** Biomedical research measures and clinical trial methodology will be discussed, including the use of randomized controlled trials for adolescent research and the collection of biological samples from adolescents. Participants will be aware of the ethical considerations for conducting biomedical research in adolescents.

**Week 9: Research on Sensitive Topics with Vulnerable Populations.** Particular attention will be given to understanding the ethical, legal, and social issues of conducting research on adolescent behavior. The participants will gain an understanding of the unique circumstances surrounding research on minors and vulnerable populations. Sensitive topics will include substance abuse, sexual behavior, and weight-related behaviors. Vulnerable populations will include the very ill, homeless youth, GLBT youth, and youth in the juvenile justice system.

**Week 10: Qualitative Research with Adolescents.** Developmental adaptations of qualitative research methods will be covered, such as interviewing and conducting focus groups with adolescents. Previous research employing the use of qualitative methods with adolescents will be reviewed, and participants will consider future applications.

**Week 11: Research with Parents/Families of Adolescents.** Understanding role of parents and families is critical in the study of adolescent health. Issues involving research with parents and families of adolescents will be reviewed, including the use of dyadic data for research with adolescents and their families. Participants will understand the implications of conducting research with the families of adolescents related to consent, permission, confidentiality, and parent engagement in the research process.

**Week 12: School and Community-based Research with Adolescents.** Research in non-clinical settings will be discussed, including school-based and community-based venues for conducting research. Issues of sampling, participant recruitment, and study design will be covered. Participants will be able to plan a community-based or school-based research study.
Week 13: Program Evaluation in Adolescent Health. The role of program evaluation in behavioral interventions for adolescents will be discussed. Issues related to evaluation designs, approaches to randomization (individual, group), and the use of mixed methods evaluations will be covered. Adolescent pregnancy prevention and tobacco cessation will be discussed as examples.

Week 14-15: Ethical Aspects of Research with Adolescents. Training in the responsible conduct of research with adolescents will be continued by focusing on specific ethical issues regarding the use of adolescents in research. Foundational readings in research ethics will be discussed as they pertain to adolescent research. Topics will include scientific misconduct, legal and regulatory aspects of adolescent research, parental permission, and waivers of parental permission and written consent. Participants will understand how to apply principles from bioethics to the design and conduct of research with adolescents.

Week 16: Course Summary. Review of key topics, discussion of papers, feedback to instructor, and course evaluations.

V. SAMPLE READINGS


Suggested Readings:

V. EVALUATION AND GRADING
This class is intended to be highly interactive. Students and fellows are expected to attend and to participate actively in at least 80% of classes (e.g. If 15 sessions are scheduled, absences should be 3 or less). Class sessions will have advance reading assignments (chapter or journal article). Some sessions will also have problems, cases or questions to complete in advance of the class. Students and fellows will be expected to be prepared to discuss any assigned readings. In addition to the didactic lectures, highlights from readings will be addressed, questions will be posed, and additional material to augment the readings will be presented. Thus, dialogue and critical thinking on the part of the student will be emphasized. Students and fellows are encouraged to have “balanced” participation. Neither silence during the entire semester nor consistently “dominating” the class discussion are desirable.

For each semester, students will be required to complete a 10 page written paper and lead one class session alone or as part of a group, including choosing supplemental readings and preparing and leading a discussion. Students will be graded as follows:
Out of 100 total points, 40 points of the grade from a written paper, 30 points from leading the class session, and 30 points from class participation and discussions. Attendance will be taken at each class, and the 30 class participation points will be reduced to 20 points after 3 absences and 10 points after 6 absences. The group activities and independent written paper will be focused on a course topic related to research in adolescent health.

Grading Scale:
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<th>Points</th>
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<tr>
<td>A</td>
<td>93-100</td>
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<tr>
<td>A-</td>
<td>90-92</td>
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<tr>
<td>B+</td>
<td>87-89</td>
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<tr>
<td>B</td>
<td>75-86</td>
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<table>
<thead>
<tr>
<th>Letter Grade</th>
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<tbody>
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<td>C</td>
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<td>F</td>
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**Leading Class:** In week 1, students will choose which class session they will lead. Students will meet with the instructor two weeks prior to their session to identify the learning objectives, didactic approach (e.g. case presentation, traditional lecture) and sources for class materials. One week prior to their session they will identify 2 required readings and 2 additional readings to be provided to other students in the class. One day prior to their session, they will provide class materials (e.g. PowerPoint presentations, handouts) to the instructor. Student presentations will be scheduled for 1.5 hours. Grades will be determined by thoroughness, accuracy, and relevance of readings, teaching materials and presentation. Example class presentations include ethical aspects of research with vulnerable populations, international health research with adolescents, and community-based participatory research with adolescents.

**Final paper:** Final paper topics will be identified in week 7, a 1-2 page outline and list of at least 5 primary sources will be due in week 10, and the final paper will be due in week 13. Papers should be at least 10 pages not inclusive of references, figures or tables, and use 1 inch margins, Times New Roman font, and JAMA style references and footnotes. Topics must be broadly related to research methods in adolescent health, but students may use a variety of approaches, including (but not limited to) a review of the literature, a case study, or the design of a program evaluation or a grant application. Examples include a case study of ethical issues related to waivers of parental consent and confidentiality in adolescent substance use research, a review and comparison of sampling strategies used in different nationally representative health surveys of adolescents, a discussion of venue-based sampling and other approaches to working with difficult to reach adolescent populations, and the design of a program evaluation for a community adolescent pregnancy prevention program.

**VI. CHEATING AND PLAGIARISM:**
Students are instructed to make themselves aware of University regulations concerning plagiarism, the maintenance of academic honesty and the definitions of unacceptable behavior and cheating. Academic misconduct of any sort will not be tolerated and will be dealt with as outlined in the *IU/IUPUI Code of Student Rights, Responsibilities, and Conduct*, which can be viewed at: [http://www.life.iupui.edu/help/docs/Part_3all.html](http://www.life.iupui.edu/help/docs/Part_3all.html)

Examples of misconduct include but are not limited to:
1. **Cheating**
   A student must not use or attempt to use unauthorized assistance, materials, information, or study aids in any academic exercise

2. **Fabrication**
   A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citations to the sources of information.

3. **Plagiarism**
   A student must not adopt or reproduce ideas, words, or statements of another person without appropriate acknowledgment. A student must give credit to the originality of others and acknowledge an indebtedness whenever he or she does any of the following:
a. Quotes another person's actual words, either oral or written
b. Paraphrases another person's words, either oral or written
c. Uses another person's idea, opinion, or theory; or
d. Borrows facts, statistics, or other illustrative material, unless the information is common knowledge.

4. Interference
   a. A student must not steal, change, destroy, or impede another student's work.
   b. A student must not give or offer a bribe, promise favors, or make threats with the intention of affecting a grade or the evaluation of academic performance.

Potential consequences for academic misconduct:

If the instructor has information that one of his/her students committed an act of academic misconduct, the faculty member will hold an informal conference with the student. The conference will be prompt and private. If the faculty member concludes that the student is responsible for the misconduct, then the faculty member will impose an appropriate academic sanction (i.e., lower or failing grade on the assignment, assessing a lower or failing grade for the course).

VII. AMERICANS WITH DISABILITIES ACT:
If you need any special accommodations due to a disability, please contact Adaptive Educational Services at (317)-274-3241. The office is located in CA 001E.