Welcome:
Welcome students! I’m excited to dive into the world of REDCap with you and hope you’ll be able to take these skills and apply them in the real world. I hope to create an interactive environment where we can all learn from each other.

Coursemaster Biography:
I am a University of Michigan graduate that moved to Missouri to pursue my MSW at Washington University School of Medicine. After graduating, I took a position as a clinical research assistant with the Division of Clinical Research and Washington University School of Medicine. My work centers on family planning and reproductive health in the St. Louis area. Over the last 9 years, I transitioned from one-on-one patient interaction to data management, analysis and evaluation of our programs. I have been able to work on projects such as the Contraceptive CHOICE Project, IMPACCT study, Contraceptive Decision Making Tool and the Contraceptive Choice Center (C3). I used REDCap for research projects, systematic reviews, QA/QI activities and survey administration.

Teaching Philosophy:
I truly believe students learn best when they feel comfortable. As a result, I try to adapt my teaching style to what fits best for the student. Additionally, I encourage students to ask questions and share their expertise or ideas openly as we are all there to learn from each other.

I also believe that students learn best when they have ownership of the material. For this course, I encourage students to bring a research topic that is important to them or an idea from work so they can continue to use the skills they learned after the class has ended.
About This Course

Required Texts:
All relevant course material will be posted on Canvas for easy access.

Other Course Materials:  WUSTL REDCap Training Website:
https://redcap.wustl.edu/redcap/srvrs/prod_v3_1_0_001/redcap/index.php?action=training

Course Description:
Students will learn the purpose and benefits of using sophisticated software platforms such as REDCap for conducting research. Through in-class demonstrations and exercises, students will gain critical hands-on experience using various features of REDCap software including: creating new projects and assigning user rights, development vs. production mode, participant tracking, project calendars and scheduling features, data collection and management, customizable survey design and administration mode, database design, data import and export functions, default and custom reporting tools, audit trails, file sharing, inter-operability with other data systems (EMR) and software including common reporting tools (Excel) and statistical packages (SPSS, SAS, R) and more. Students will learn about the HIPAA compliance standards of REDCap and how the same databases can be used across sites in a multi-site study. Students will apply their skills to a proposal for using REDCap to address a specific research objective of their choosing.

Students will showcase skills learned through in-class exercises and a brief individual presentation.

Goals of the Course:
By the end of this course, participants will be able to:
- Create projects, edit and place REDCap projects into production
- Understand the purpose of each REDCap project type and when to use each one
- Assign various user roles and understand multi-site functionality of REDCap projects
- Utilize additional built-in tools including REDCap mobile, the calendar and the scheduling module
- Export data for use in Microsoft Excel and various statistical software (SPSS, SAS, Stata and R)

Upon completion of this course, students will be able to use REDCap for data collection and management for a research project. Additionally, students will learn how to use REDCap for non-research purposes.

Homework:
In preparation for class
Prior to August 10th: Watch the brief overview video provided by WUSTL REDCap

Major Assignment Descriptions:
Completed survey instrument – Due August 17th
For use in class, students are required to create a survey instrument by the second class. Students will have time to work on this assignment in class on August 10th.

Brief presentation - Due August 17th
Each student will identify and present a REDCap resource (other than those included in the syllabus) that they believe would be helpful or interesting for others in the class. The presentation is very informal and lasts about 5-10 minutes. The presentation should include enough information for the other students in class to find the resource and understand what it does.

Class Participation:
Full and active participation will be essential for your success in this course and will be one of the criteria evaluating your performance. We will complete many in-class activities that build upon each other, as a result, asking questions and actively engaging in the class session is required.
The classroom is an opportunity to practice professional demeanor and mutual respect. All interactions in class will be civil, respectful and supportive of an inclusive environment for all students. If students have any questions regarding participation or classroom dynamics, please contact the coursemaster, the AHBR Director or an advisor.

**Technology Requirements:**
As a student in this class, you are expected to have access to reliable internet access. If you have computer problems, it is your responsibility to address these or utilize the CRTC Computer Lab. Problems with your computer or other technology issues are not an excuse for delays in meeting expectations and missed deadlines for the course. If you have a problem, get help in solving it immediately. At a minimum, you will need the following software/hardware to participate in this course:

1. Computer with an updated operating system (e.g. Windows, Mac, Linux)
2. Updated Internet browsers
3. Ability to navigate the Canvas Learning Management System (mycanvas.wustl.edu)
4. Adobe Reader or alternative PDF reader (free)

**Time Requirements**

For face-to-face courses in the CRTC program it is expected that you will be in class approximately 15 hours for each credit of the course a week plus travel time (i.e. this is a 1 credit course so that is 1 hour a week for 15 weeks or more hours in fewer weeks). In addition, it is assumed you will be doing homework and reading assignments that may take double that time. You should anticipate your time commitment for this course to be at least 15-30 hours total.

**Course Schedule** (subject to modification)

<table>
<thead>
<tr>
<th>Dates</th>
<th>Topic</th>
<th>Readings Due</th>
<th>Assignments Due</th>
</tr>
</thead>
</table>
| Saturday, August 10th, 2019 | What is REDCap?  
Getting Access to REDCap  
Creating and customizing a project  
Instrument design  
Specialized question types  
Branching logic  
Basic user rights | Watch 5 minute prior to class: REDCap Intro Video |                                               |
| Saturday, August 17th, 2019 | Creating and navigating records  
Special features within REDCap projects  
Reports and Stats  
Data export/import  
REDCap external application interface  
Presentations | Completed Survey Instrument  
Brief in class presentation |                                               |

**Assessment/Grading**

**Grade Composition**

**Summary of Course Assignment Point Values:**

- Brief presentation: 20
- Completed survey instrument: 30
- Attendance, Participation, and Professionalism: 50
- Total: 100
**Grading Scale:** This course utilizes the standard CRTC grading scale. The grade value for each letter grade is as follows:

<table>
<thead>
<tr>
<th>Grades/sub-grades</th>
<th>Course Points</th>
<th>4-point scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+ (98% to 100%)</td>
<td>98-100</td>
<td>4.00</td>
</tr>
<tr>
<td>A (93% to 97%)</td>
<td>93-97</td>
<td>4.00</td>
</tr>
<tr>
<td>A- (90% to 92%)</td>
<td>90-92</td>
<td>3.7</td>
</tr>
<tr>
<td>B+ (88% to 89%)</td>
<td>88-89</td>
<td>3.3</td>
</tr>
<tr>
<td>B (83% to 87%) – minimum for Core courses</td>
<td>83-87</td>
<td>3.00</td>
</tr>
<tr>
<td>B- (80% to 82%)</td>
<td>80-82</td>
<td>2.7</td>
</tr>
<tr>
<td>C+ (77% to 79%)</td>
<td>77-79</td>
<td>2.3</td>
</tr>
<tr>
<td>C (73% to 77%) – minimum for Electives</td>
<td>73-77</td>
<td>2.00</td>
</tr>
<tr>
<td>C- (70% to 72%)</td>
<td>70-72</td>
<td>1.7</td>
</tr>
</tbody>
</table>

**Penalties for Late Work:**
Since there will be ample time to complete work during class, late assignments will not be accepted.

**Feedback and Grading Timeline:**
Grades for both the survey instrument and brief presentation will be returned to the student by August 22\textsuperscript{nd}.

**Attendance Requirement for Face-to-Face Course:**
In-class participation is an important part of the coursework taken as part of the MSCI or AHBR programs and the clinical research training programs within the CRTC. Students are expected to **physically attend at least 75% of class sessions** for each course they take. Students whose professional duties or personal circumstances prevent them from meeting this program attendance requirement must receive prior written approval of the coursemaster(s), and agree on an alternate plan to achieve course objectives and earn academic credit.

**Technology Usage During Class:**
Computers or other electronic devices may be used by students at the discretion of the coursemaster to support learning activities in the classroom. Nonacademic use of laptops and other devices is distracting and seriously disrupts the learning experience. The use of cell phones during class time is prohibited and they should be set on silent before class begins. In the event the student needs to use their cell phone, please step out of the room.

**Technical Support**
If you have any technical problems accessing [MyCanvas](mailto:ahbr@email.wustl.edu) please e-mail [ahbr@email.wustl.edu](mailto:ahbr@email.wustl.edu). Note this mailbox is not monitored in the evening or on weekends. If you need immediate help after hours please submit a service request to [https://wusm.service-now.com](https://wusm.service-now.com).
### AHBR Core Competencies for Master’s Degree Candidates

The following AHBR competencies are addressed by this course.

<table>
<thead>
<tr>
<th>Core Thematic Areas</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Describe the role and interaction of key determinants of health status, health behavior, and health behavior change from a biopsychosocial perspective across the lifespan.</td>
<td>•</td>
</tr>
</tbody>
</table>
| 2) Describe and apply relevant theories, concepts, and models from social and behavioral science to both understand and modify health behavior and health outcomes. | Selection of measures captured by REDCap:  
• Identify theories, concepts and models from a range of social and behavioral disciplines that are used in health behavior research.  
• Understand how to operationalize and measure theoretical constructs. |
| 3) Describe and apply basic principles of research and evaluation methodology relevant to understanding and modifying health behaviors and health outcomes. | • Apply quantitative methods, e.g., behavioral surveys and biometrics, to understand health behaviors and health outcomes, and to design and evaluate intervention programs, including appropriate data collection and analysis techniques.  
• Describe the basic principles of study design.  
• Deliver effective scientific presentations.  
• Conduct basic statistical analyses using common statistical methods and statistical analysis software packages. |
| 4) Describe and apply ethical principles relevant to health behavior research and practice. | • Describe the ethical codes and principles relevant in health behavior research.  
• Describe rules and regulations designed to uphold ethical principles (e.g., HIPAA to protect confidentiality, research ethics requirements to protect human subjects).  
• Understand the ethical implications of emerging research, technology, and societal trends relevant to public health and medicine (e.g., expansion of public health genetics and genomics, commercialization of health services and products). |
| 5) Plan, implement, and evaluate health behavior programs across diverse settings and populations. | Reasons for using REDCap:  
• Describe the steps and procedures for planning, implementing, and evaluating health programs.  
• Apply evidence-based approaches to the development, implementation, and evaluation of health programs. |
| 6) Describe and apply the knowledge and skills necessary to interact with diverse individuals and communities. | Using REDCap for data collection:  
• Understand the principles of social justice and equity when interacting with diverse individuals and community settings.  
• Understand the concepts and skills involved in designing culturally appropriate data collection strategies. |
| 7) Manage health promotion and behavior change programs. | REDCap as a project management resource:  
• Develop and manage a research study protocol  
• Structure and manage projects, including the use of relevant spreadsheet software.  
• Develop, implement, and maintain quality assurance and control procedures for data collection, data management, statistical analysis and data monitoring.  
• Identify resources needed to implement a research study and allocate resources appropriately.  
• Write detailed progress reports and interact with funding agencies.  
• Prepare and submit IRB application(s) including all the necessary documents and study materials.  
• Apply multiple strategies for tracking participants over time, including the use of relevant software and public information resources. |
Course Policies

Please refer to the AHBR Scholar Handbook for complete program policies and information.

Participation (Expectations):
- It is vitally important that our classroom environment promote the respectful exchange of ideas. This entails being sensitive to the views and beliefs expressed during discussions whether in class or online.
- Your success in this course will heavily depend on your ability to communicate, engage and participate in all course activities. Successful completion of this course requires that a student keep up with all assignments and prep work for the lab components.

If you are unable to participate in the scheduled class activity or discussions you must notify the coursemaster within the week of that class module or discussion. An unexcused failure to engage or participate with the class will be counted as an absence; unexcused absences may result in failure. The coursemaster reserves the right to make judgment to accept and/or make-up assignments missed because of failed participation in the course activities.

Drop Dates:
If the occasion should arise that you want or need to drop this class, please see me first. You can drop for any reason during the course of the semester, however you my only receive a partial or no tuition reimbursement depending upon how far into the semester you drop the course. See the Academic Calendar for specific dates and reimbursement policies. Note, late withdrawals will also appear on your transcript as a withdrawal.

CRTC Academic Policy Guidelines:
Guidelines regarding CRTC course registration and enrollment, grades, tuition obligation, and academic leave are consolidated in the CRTC Academic Policy Guidelines. Please take a moment to review this document.

CRTC Guidelines for Academic and Non-Academic Transgressions:
By registering for this course you have agreed to the terms of the CRTC Guidelines for Academic and Non-Academic Transgressions. If you have not already reviewed this policy, please be sure to before beginning any CRTC related coursework.

Academic Integrity/Plagiarism:
- Academic dishonesty is a serious offense that may lead to probation, suspension, or dismissal from the University. One form of academic dishonesty is plagiarism – the use of an author’s ideas, statements, or approaches without crediting the source. Academic dishonesty also includes such acts as cheating by copying information from another student. Plagiarism and cheating are not acceptable.
- Academic dishonesty will be reported to the Office of the Registrar for possible action. The coursemaster will make an academic judgment about the student’s grade on that work and in that course. The CRTC process regarding academic dishonesty is described in the CRTC Guidelines for Academic and Non-Academic Transgressions.

Writing Assistance:
For additional help on your writing, consult the expert staff of The Writing Center in Olin Library (first floor) on the Danforth Campus. It can be enormously helpful to ask someone outside a course to read your essays and to provide feedback on strength of argument, clarity, organization, etc.

Accommodations based upon sexual assault:
The University is committed to offering reasonable academic accommodations to students who are victims of sexual assault. Students are eligible for accommodation regardless of whether they seek criminal or disciplinary action. Depending on the specific nature of the allegation, such measures may include but are not limited to:
implementation of a no-contact order, course/classroom assignment changes, and other academic support services and accommodations. If you need to request such accommodations, please direct your request to one of the following resources: Dr. Karen Winters, MD, Director of Student Health Service; Dr. Gladys Smith, PhD, Sexual Violence Prevention Therapist and Licensed Psychologist, or Kim Webb, Director of the Relationship and Sexual Violence Prevention Center at the Danforth Campus. These are confidential resources; however, requests for accommodations will be shared with the appropriate University administration and faculty. The University will maintain confidential any accommodations or protective measures provided to an individual student so long as it does not impair the ability to provide such measures. If a student comes to me to discuss or disclose an instance of sexual assault, sex discrimination, sexual harassment, dating violence, domestic violence or stalking, or if I otherwise observe or become aware of such an allegation, I will keep the information as private as I can, but as a faculty member of Washington University School of Medicine, I am required to immediately report it to an Office of Education Dean or directly to Ms. Jessica Kennedy, the University’s Title IX Director. If you would like to speak directly with Ms. Kennedy, she can be reached at (314) 935-3118, or by visiting the Title IX office in Umramth Hall on Danforth Campus. Additionally, you can report incidents or complaints to the Office of Student Affairs or by contacting WUSM Protective Services 314-362-4357 or your local law enforcement agency. You can also speak confidentially and learn more about available resources by contacting Dr. Gladys Smith, PhD, Sexual Violence Prevention Therapist and Licensed Psychologist at the Medical Campus, (314) 362-2404, or contacting the Relationship and Sexual Violence Prevention Center located on the 4th floor of Seigle Hall on Danforth Campus, (314) 935-3445.

For further Resources, see: wusmhealth.wustl.edu/students/victims-sexual-assault-abuse/resources-2/

Bias Reporting:
The University has a process through which students, faculty, staff and community members who have experienced or witnessed incidents of bias, prejudice or discrimination against a student can report their experiences to the University’s Bias Report and Support System (BRSS) team.

See: diversityinclusion.wustl.edu/brss/. To report mistreatment or offensive behavior in the MD program, please report via the following pathways:

- **CANVAS** (the Learning Management System) utilizing the direct link from the Student Commons < Mistreatment, Offensive Behavior, and Bias Reporting
- Directly contacting any of the following individuals:
  - Senior Associate Dean for Education
  - Associate Dean for Student Affairs
  - Associate Dean for Medical Student Education
  - Student Ombudsperson (as another confidential resource)

Mental Health:
Mental Health Services’ professional staff members work with students to resolve personal and interpersonal difficulties, many of which can affect the academic experience. These include conflicts with or worry about friends or family, concerns about eating or drinking patterns, and feelings of anxiety and depression.

See: shs.wustl.edu/MentalHealth

On the Medical Campus:
**Office of the Associate Vice Chancellor for Diversity, Equity and Inclusion (DEI)**

The DEI Training Team designs, facilitates and leads diversity education programming for faculty, staff and students on a wide range of topics including: creating a climate of respect, the value of diversity and the role of biases in our day-to-day lives.

[diversity.med.wustl.edu/training/]
The Office of Diversity Programs promotes diversity among and prepares medical students to lead in a global society. A priority for the Office of Diversity Programs is to cultivate and foster a supportive campus climate for students of all backgrounds, cultures and identities.  
mddiversity.wustl.edu/

The Diversity and Inclusion Student Council promotes an inclusive campus environment for all School of Medicine students.  
sites.wustl.edu/disc/

The Office for International Students and Scholars embraces the university’s mission of welcoming promising students from around the world. wumma.wustl.edu/