Sara McComb, PhD, PE teaches the course in Systems Approaches in Healthcare Engineering. Dr. McComb will demonstrate how engineering tools and techniques apply to healthcare systems. By the end of the course, participants will have addressed a real-world problem from this perspective and be conversant in how the other tools and techniques might be applied. This type of knowledge will help them recognize opportunities for improvement and impact healthcare delivery directly.

David R. (Randy) Black, PhD, MPH, HSPP, CHES, CPPE, FASHA, FSBM, FAAHB, FAAHE from the Department of Health and Kinesiology offers students an intensive and fully online course in Principles of Epidemiology. This course focuses on application of epidemiologic descriptive and analytic statistics and how they are used to draw cogent and valid conclusions. The nature of epidemiologic study as it relates to human morbidity, mortality, and injury (disability) is reviewed. The utility of public health, vital statistics, concepts of disease transmission, types of epidemiological studies, surveillance/screening tests, and causality are included.

Two Summer Intensive Courses open to Nurses and Graduate Students

SYSTEM APPROACHES IN HEALTHCARE ENGINEERING and

PRINCIPLES OF EPIDEMIOLOGY

These two intensive courses meet core requirements for the Purdue Doctor of Nursing Practice program at the West Lafayette campus and for the Purdue collaborative system DNP program.

The courses are also open to students of any discipline and healthcare professionals who are interested in building a foundation in Quality Improvement and/or Public Health. A certificate is available for those who do not choose to receive official university credits for the course(s).
**COURSES**

**System Approaches in Healthcare Engineering**
May 18-22; 9:00AM – 12:00PM, May 21; 4:00PM – 7:00PM
Instructor: Sara McComb, PhD
Introduces the fundamentals of systems engineering tools and approaches through hands-on problem solving exercises. Participants will develop basic skills in interpreting systems analysis results and applying systems tools such as process mapping, bottleneck analysis, queuing, lean engineering, simulation, optimization, dealing with uncertainty, “what if” analysis, quality control, and performance monitoring techniques.

**Principles of Epidemiology**
Class will be scheduled over 8 weeks beginning June 15, 2015 Synchronous sessions held each Monday, Wednesday and Friday for 6 weeks; 1 week off prior to exam.
Instructor: David R. (Randy) Black, PhD, MPH, HSPP, CHES, CPPE, FASHA, FSBM, FAAHB, FAAAHE
Introduction and application of basic/rudimentary epidemiologic descriptive and analytic statistics and study as related to human morbidity, mortality, and injury (disability). Other topics include the utility of public health vital statistics, concepts of disease transmission, screening tests, types of epidemiological studies, and causality.

If you are interested in registering for the above courses or in applying for the scholarships, please contact gradnursing@purdue.edu.

*All courses can be taken for course credit or for certificate*

**FORMAT**

*System Approaches in Healthcare Engineering* is offered on campus in an intensive five-day format. Supplemental work is required prior to and following the time on campus if you are taking this course for Purdue University credit. The chance to experience the university environment and the opportunity to form strong relationships between and among students and faculty are highlights of this program.

*Principles of Epidemiology* is an entirely online course and begins on June 15, 2015 running through August 5, 2015 making it possible for students to complete two courses in the summer sessions.

**WHO CAN ENROLL**
Graduate students, nurses, and other healthcare professionals are invited to apply. Students wishing to take the courses for credit who are not already active graduate students must apply as a non-degree seeking student no later than May 1, 2015.

**COLLEGE CREDIT AVAILABLE**
Three university credits are available for each course. The registration deadline to receive college credit is May 1, 2015.

**FEES**
For the campus-based intensive face to face credit course: $1,043.55 for in-state students $2,844.90 for out of state students.
For NUR 599 Principles of Epidemiology, students registering through Purdue Extended Campus: $1,043.55 for in-state students and $1,537.14 for out of state students For registration see the credit course information link on this Web site: https://www.distance.purdue.edu/regform/courses.

**CERTIFICATE OPTION**
A certificate option is available for those students who want the course content but choose not to take the examinations and complete the required projects. Certificate Fees Include: Registration for a single certificate offering is $900. The registration deadline for the certificate option is one week prior to the start of the in Systems Approaches in Healthcare Engineering. Course; and the Friday prior to the start of the Principles of Epidemiology course. A certificate will be awarded for the completion of each course. Register online at: www.distance.purdue.edu/systems or www.distance.purdue.edu/epidemiology.

**TEXTBOOKS**
The books are listed by course.

The text for *Systems Approaches in Health Care Engineering* is Ozcan Y, Quantitative Methods in Health Care Management: Techniques and Applications, 2nd Ed. ISBN: 978-0-470-43462-8. This text can be purchased through Amazon.com.


**HOUSING ACCOMMODATIONS**
For on campus intensive sessions, please visit www.conf.purdue.edu/attend for information about possible local lodging options, Maps and Parking, Transportation, and wireless access.

**CANCELLATION POLICY**
Certificate Option: A 50 percent refund will be granted if a request is received two weeks prior to the start of the event. Course fees will be non-refundable after May 4.
Credit Option: The refund will be calculated according to Purdue University Policy. You may contact askbursar@purdue.edu for additional refund information.

**FOR MORE INFORMATION**
For registration information, please contact:
Melody Carducci; e-mail: mmcbrite@purdue.edu; Phone: 765-496-0338.
For course content information, contact: gradnursing@purdue.edu.