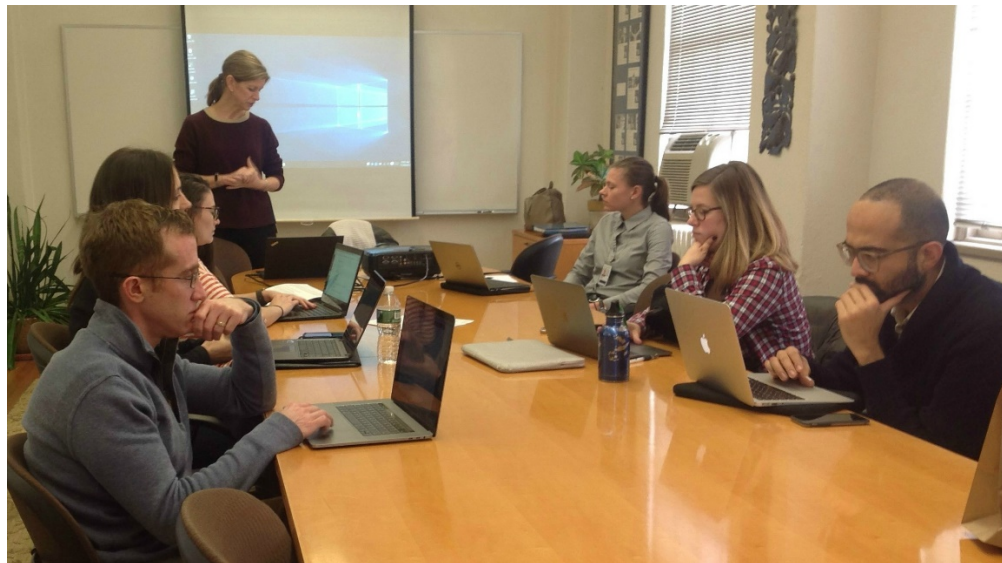


NATIONAL CLINICIAN SCHOLARS PROGRAM

Curriculum Summary for Advanced Health Sciences Research Course Participants

(Non-Scholars)

JULY 2019 - JUNE 2020



CURRICULUM SUMMARY FOR ADVANCED HEALTH SCIENCES RESEARCH (AHSR) COURSE PARTICIPANTS

The National Clinician Scholars Program core curriculum includes three courses: 1) Biostatistics (~100 hours including lab); 2) Clinical and Health Services Research Methods (~65 hours); and 3) Principles of Health Policy and Management (~23 hours). All core classes are open to AHSR course participants.

In addition to the core courses, we offer a Community-Engaged Research (CEnR) course (~39 hours) and a two-year seminar series where participants meet with national, state, and local health policy leaders. This seminars series, called Seminars in Health Policy and Delivery meets on average twice a month. In the fall of 2019 and spring of 2020, the focus will be on the private sector. During the fall of 2020 and spring of 2021, the focus will be on the public sector. AHSR course participants are welcome to attend both years of the seminar series.

Course participants will receive ~80 hours of classroom time in the summer, ~84 hours in the fall, and ~73 hours in the spring, if participating in all available courses. We use approximate hours because we may bring in additional content during the year as requested by Scholars or if an outstanding expert is on campus.

SUMMARY OF COURSES AVAILABLE TO AHSR COURSE PARTICIPANTS

I. Biostatistics (Maggie Holland, PhD, MPH, MS for class and Laura Cramer, PhD for lab)

This course is designed to develop expertise in biostatistical concepts and applications. At the completion of the course, participants will be able to:

1. Design appropriate statistical analyses for diverse data sets and studies
2. Conduct bivariate and multivariable statistical analyses
3. Interpret and critique statistical methods used in medical journal literature

Statistics Lab is offered for two hours approximately every other week beginning in the summer and running through the spring term.

Summer (Class & Lab combined: ~10, 3 hour sessions)

- Descriptive and simple statistics (one and two-way analyses including ANOVA and simple linear regression; non parametric analysis)

Fall (Class: ~10, 1.5 hour sessions; Lab: ~6, 2 hour sessions)

- Multivariate analyses (linear regression, logistic regression, survival analyses)

Spring (Class: ~13, 1.5 hour sessions; Lab: ~9, 2 hour sessions)

- Special topics: hierarchical analyses, Poisson regression, general linear models, repeated measures and longitudinal analysis, weighting, factor analyses, Bayesian analysis, meta-analysis

II. Clinical and Health Services Research Methods (Mayur Desai, PhD, MPH, Danya Keene, PhD, and invited lecturers)

The course is designed to build expertise in quantitative and qualitative research methodologies. It is taught in two parts. The first part focuses on quantitative methods and the second part focuses on qualitative methods. At the completion of the courses, participants will be able to:

1. Design study methodology to examine diverse topics in clinical and health services research, using both qualitative and quantitative methods (includes study design, sampling strategies, data collection, measurement approaches, and data analysis)
2. Critique published studies in terms of their research methodologies
3. Understand the implications of various methodological approaches for the internal and external validity of the study

Summer (~19 sessions with varying lengths)

- Principles of clinical and health services research, quantitative methods (~13, 2 hour sessions)
- Principles of clinical and health services research, qualitative methods (~6, 1.5 hour sessions)

Fall/spring (~20, 1.5 hour sessions)

- Use of software in qualitative analysis
- Special topics in clinical and health services research

III. Principles of Health Policy and Management (Howard Forman, MD and invited lecturers)

This course introduces major tenets in health policy and health management. At the end of the course, participants will be able to:

1. Describe major components of health care delivery, financing, and regulatory systems in the US
2. Apply several tools to policy and management problems (conduct comparative analyses of alternative policy interventions, design policy implementation plans, perform cost-effectiveness analysis, implement a management problem solving method, and implement tools of quality improvement)
3. Describe the policy and or management implications of their own research
4. Identify health policy and management levers of change to increase the translation and impact of their own research into clinical practice

Summer (~7, 1.5 hour sessions)

- Health care financing and delivery system
- Policy agenda setting
- Evaluating policy alternatives
- Policy implementation
- Designing and implementing policy at the state level

Fall (~7, 1.5 hour sessions)

- Special topics

Spring (~1, 1.5 hour session)

- Special topics

IV. Foundations of Community-Engaged Research (Marjorie Rosenthal, MD, MPH, Ann Greene, and invited lecturers)

This course orients participants to the theoretical components and practical skills required to conduct stakeholder-engaged research. For the growing interest in patient-centered care research and implementation science, this course offers a foundation and orientation to that field of practice. At the completion of the course, participants will be able to:

1. Describe the etiology of social determinants of health, strategies to address health inequities, and challenges in their measurement
2. Assess community health and community assets by partnering with community stakeholders using secondary data on regional communities, and design ideal practices of primary data collection through surveys, interviews, and focus groups
3. Participate in local health-related activities to link community research to health improvement
4. Apply program management skills in research including designing viable work plans and budgets
5. Design process and summative evaluation designs for community health programs and describe the different values and benefits of each
6. Describe principles of stakeholder-engaged research and understand its use in assessment, planning, and evaluative research that Scholars may conduct with community partners
7. Review the principles of patient-centered care research
8. Apply the principles of stakeholder-engaged research to case studies; distinguish its unique characteristics, including barriers and facilitators to its implementation, and ethical considerations

Summer (~4, 1.5 hour sessions)

- Principles of Community Engaged Research
- Orientation to New Haven health issues
- Population health
- Social determinants of health
- The built environment
- Walking tours of New Haven neighborhoods led by neighborhood leaders

Fall (~10, 1.5 hour sessions)

- Case studies: Youth Violence, Partner Notification, Homelessness, Incarceration and Health, and other topics
- Principles and applications of community needs assessment tools
- Application of qualitative and mixed methods
- Application of quantitative methods
- Project management and Budgeting
- Maternal and Child Health

Spring (~11, 1.5 hour sessions)

- The challenges of researcher and subjects in the context of race, class, and ethnicity
- Ethics in stakeholder-engaged research
- Engaging community members as researchers
- Academic and community-oriented dissemination

V. Seminars in Health Policy and Delivery (Robert Galvin, MD, Howard Forman, MD, and Irwin Birnbaum, JD)

Seminars focus on the public and governmental sectors in one year and in the alternating year, the focus will be on the private sector. These sessions enable participants to:

1. Understand government operations and the role of community, local, state, and Federal governments in regulating healthcare and shaping health care policy
2. Understand the role of the private sector, nonprofit healthcare providers and advocacy groups

Fall/spring of first year (~15, 1.5 hour sessions per year)

Fall/spring of second year (~15, 1.5 hour sessions per year)

TUITION AND APPLICATION PROCESS

The tuition fee is \$8,500 and is the same price regardless if one, or all available courses are taken. Course participants are responsible for purchasing the books and software for the courses they take.

The AHSR coursework can partially fulfill the requirements for the MHS degree for individuals who are working within the context of their departmental master's programs. Participants who are interested in pursuing an MHS degree should discuss this option with their home clinical departments. The National Clinician Scholars Program does not oversee the MHS degree process for AHSR participants.

Any person interested in taking part in these courses will need to submit their completed application form by April 1st each year. **Spots are limited** and applications will be reviewed on a first come first serve basis. You will be notified by May 1st of your acceptance into the program. Tuition payments must be received by June 1st to secure your spot.

If you are interested in becoming an AHSR course participant, please email Sarah Englehardt (sarah.inglehardt@yale.edu). She will provide you with information regarding the application process.