

ECON 890/003
HEALTH ECONOMICS: MARKETS AND SUPPLY-SIDE ACTORS
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
SPRING 2021

Mode of instruction: Mode 3 (remote synchronous)

Zoom meeting ID: 915 8923 0558 (passcode-protected)

Zoom link with passcode is posted on the frontpage of this course's Sakai site.

Time & location: TR 12.30-1.45pm

Prerequisites: ECON 847/848/873/880/881

Credit units: self-selected by student (1.0 - 3.0) (any higher-year empirical micro course)

Instructors:

Qing Gong

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Office hours: by appointment, Fri 9-11 am

Office hour sign up: here

Office hour sign up: here

Course synopsis: This course explores the economics of health care markets with a focus on supply-side actors, such as insurers, hospitals and physicians, and drug manufacturers. We will present an assortment of topics in health economics and analyze them using tools from applied microeconomics and industrial organization. Examples include:

- The structure of payment models to incentivize health care providers to deliver low-cost and high-quality care.
- How the consolidation of health care providers affects the allocation of patients, hospital prices and insurance premiums.
- How price regulation affects pharmaceutical innovation and access to prescription drugs
- The choice of capitation (fixed amount per patient) vs. fee-for-service (unbundled payments based on the kind and number of services) in incentivizing health care providers and their impact on the cost and quality of care.

- Horizontal and vertical mergers among provider groups and their impact on the allocation of patients, hospital prices and insurance premiums.
- The impact of price regulation in the pharmaceutical market.

Course objective: Our main objective is to prepare you to do original empirical research in microeconomics, specifically within health economics and industrial organization. To this end, we will (i) introduce you to the main policy issues in health economics, with a focus on understanding how different players respond to market structures and regulations, and (ii) equip you with the modeling and estimation techniques that are central to current health economics research, most, if not all, of which can also be applied in empirical research outside of health.

Approach and prerequisites: Our approach is a combination of lectures on the essential methodology, surveys of the recent literature on the supply-side topics of health care markets, and empirical exercises that familiarize you with the prominent econometric tools, data sources, and programming techniques. Whenever a new tool is required, we will first review the methodology and then come back to its application in the health care market.

This course will be the second of two health economics courses offered each year at UNC Economics. Its focus on the supply side actors of health care markets complements the existing course (ECON 850 Health Economics), which examines the consumer side of health economics. As a result, this course often employs a different set of tools that spans over various fields of empirical microeconomics, such as bargaining models, learning models, cost function estimation with adverse selection, etc. These two courses do not need to be taken in any specific order.

Students are expected to have taken at least one higher-year graduate empirical microeconomics or microeconometrics course. For example, ECON 847 or 848 (Empirical IO I/II), 873 (Microeconometrics), 880 (Labor I), or 881 (Labor II). Students who have not taken these courses but may fulfill the requirements (by taking similar courses offered by other departments) are encouraged to contact the instructors and discuss their specific cases before enrollment.

Course structure and requirement: This course will be co-taught by two instructors, each covering half of the course materials. With this structure, the students are introduced to each topic by the instructor whose own research is more closely related to that topic. Throughout the semester, they are also welcome (and encouraged) to meet with any of the two instructors about the course,

original research ideas, and other research-related questions.

Most class meetings require that you read the assigned papers in advance and actively participate as we discuss them in class. You will also be required to do an in-class presentation of a paper, as well as a proposal for an original research paper at the end of the semester. Homework will be assigned regularly throughout the semester, which typically involves empirical exercises that apply tools introduced in class and/or used in the required readings. Your course grade will be calculated based on the weights below:

- **Homework:** 40% (4 assignments in total, 10% each)
 - a. **Due dates:** Homework assignments must be submitted *by noon* on the due dates, unless specified otherwise. Late submissions *before* solutions are posted or discussed in class will receive discounted grades depending on the length of the delay. Submissions *after* solutions are posted or discussed in class will *not* be accepted.
 - b. **Submission:** Please submit your homework in the required format. All homework should be submitted as a PDF to Gradescope.
 - c. **Collaboration:** You may discuss the reading materials and problems in the homework with each other. But each individual must write and submit their own work (i.e., you need to write your own answers and code your own programs, not copies of others' answers) and each individual will be graded separately on the assignment.
 - d. **Grading:** Points for each question/subquestion in the homework will be specified. In case of late submission, the homework will be graded first, and then discounted based on when the work was submitted and when the solutions are posted/discussed in class.

- **Participation:** 10%
 - a. **Assessment of required readings:** It is essential that you finish the required readings **before** they are discussed in class. Students will be (randomly) selected to answer factual questions on the reading (e.g., the research question, the empirical strategy, the key findings).
 - b. **In-class discussions:** Students are expected to voluntarily participate in and contribute to the in-class discussions, including the presentation by your peers. You need to be fully engaged, communicate your ideas clearly, and be respectful to your peers and the instructors.

- c. **Questions and comments:** Students are welcome and encouraged to ask questions both during and after class. Good questions are most often not factual ones, but ones that demonstrate critical thinking and intellectual engagement.

- **Presentation [Apr. 29, May 4, and May 11]: 20%**

- * **Date and time:** Presentations are scheduled during the last two class meetings (4/29 and 5/4) *and* during the final exam (5/11 at 12 pm).¹

- a. **Importance:** Presentation is an essential skill throughout your graduate study and a crucial one when on the job market.
 - b. **Attendance:** *All* are expected to be attend the presentation sessions just as in the lectures, and are encouraged to provide constructive feedback for your peers.
 - c. **Evaluation:** Your presentation will be evaluated by the two instructors separately (10% each). Key areas of evaluation include the content, the clarity and organization and the delivery. More detailed guidelines will be provided in class.

- **Research proposal [due May 11 at 5pm EDT]: 30%**

- a. A brief proposal on your own research project due on the first day of final exam (5-6 pages maximum excluding tables, figures, and the bibliography, 12 pt, single space, 1 inch margin on all sides).
 - b. The format resembles that for the second-year paper proposal.
 - c. Students must have their proposed ideas **approved** by April 1. To allow ample time for the instructors to evaluate your proposed idea and to make necessary changes, submit a brief description **in writing by March 18**.
 - d. More guidelines and detailed requirements will be provided in class as we go along.

List of topics and readings Below is a tentative list of topics to be covered in the course, the corresponding instructor, and a subset of (highly recommended/required) readings. The list of readings will be continually updated with additional materials, such as new working papers and exemplary job market papers. Mandatory readings are marked with an asterisk.

1. Introduction (4 lectures, Gong and Maini)

¹Final exam schedule: <https://registrar.unc.edu/academic-calendar/final-examination-schedule-spring/>

(a) Introduction to healthcare markets (Gong)

- ***Arrow, Kenneth J.**, “Uncertainty and the Welfare Economics of Medical Care,” *American Economic Review*, 1963, 53 (5), 940–973.
- **Finkelstein, Amy**, “The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare,” *The Quarterly Journal of Economics*, feb 2007, 122 (1), 1–37.
- ***Finkelstein, Amy, Matthew Gentzkow, and Heidi Williams**, “Sources of Geographic Variation in Health Care: Evidence From Patient Migration,” *The Quarterly Journal of Economics*, nov 2016, 131 (4), 1681–1726.

(b) Random utility choice models and applications (Gong)

- ***Nevo, Aviv**, “A practitioner’s guide to estimation of random-coefficients logit models of demand,” *Journal of Economics and Management Strategy*, 2000, 9 (4), 513–548.
- **Berry, Steven, James Levinsohn, and Ariel Pakes**, “Automobile Prices in Market Equilibrium,” *Econometrica*, 1995, 63 (4), 841–890.
- **Berry, Steven T.**, “Estimating Discrete-Choice Models of Product Differentiation,” *The RAND Journal of Economics*, 1994, 25 (2), 242.

(c) Cost functions and adverse selection (Maini)

- ***Cardon, James H. and Igal Hendel**, “Asymmetric Information in Health Insurance: Evidence from the National Medical Expenditure Survey,” *The RAND Journal of Economics*, 2001, 32 (3), 408.
- ***Einav, Liran, Amy Finkelstein, and Mark R. Cullen**, “Estimating Welfare in Insurance Markets Using Variation in Prices,” *The Quarterly Journal of Economics*, 2010, 125 (3), 877–921.
- **Cutler, David M., Amy Finkelstein, and Kathleen McGarry**, “Preference heterogeneity and insurance markets: Explaining a puzzle of insurance,” *American Economic Review*, 2008, 98 (2), 157–162.

(d) Bargaining in vertical markets (Maini)

- ***Horn, Henrick and Asher Wolinsky**, “Bilateral Monopolies and Incentives for Merger,” *The RAND Journal of Economics*, 1988, 19 (3), 408–419.
- ***Gowrisankaran, Gautam, Aviv Nevo, and Robert Town**, “Mergers when prices

are negotiated: Evidence from the hospital industry," *American Economic Review*, 2015, 105 (1), 172–203.

2. Health Insurance Markets (6 lectures, Gong)

(a) Moral Hazard and Insurance Design

- ***Zarek C. Brot-Goldberg, Amitabh Chandra, Benjamin R. Handel, Jonathan T. Kolstad,** "What does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics," *The Quarterly Journal of Economics*, 132 (3), 2017, 1261–1318.
- **Cutler, David M., Mark McClellan, and Joseph P. Newhouse,** "How Does Managed Care Do It?," *The RAND Journal of Economics*, 2000, 31 (3), 526–548.
- **Dranove, David, Christopher Ody, and Amanda Starc,** "A Dose of Managed Care: Controlling Drug Spending in Medicaid," *American Economic Journal: Applied Economics*, 2021, 13 (1): 170-97.

(b) Competition and Adverse Selection

- ***Einav, Liran, Amy Finkelstein, Stephen P. Ryan, Paul Schrimpf, and Mark R. Cullen,** "Selection on moral hazard in health insurance," *American Economic Review*, 2013, 103 (1), 178–219.
- **Hackmann, Martin B., Jonathan T. Kolstad, and Amanda E. Kowalski,** "Adverse selection and an individual mandate: When theory meets practice," *American Economic Review*, 2015, 105 (3), 1030–1066.
- **Shepard, Mark,** "Hospital Network Competition and Adverse Selection: Evidence from the Massachusetts Health Insurance Exchange," *NBER Working Paper #22600*

(c) Fixes for Adverse Selection

- ***Finkelstein, Amy, Nathaniel Hendren, and Mark Shepard,** "Subsidizing Health Insurance for Low-Income Adults: Evidence from Massachusetts." *American Economic Review*, 2019, 109 (4): 1530-67.
- **Tebaldi, Pietro,** "Estimating Equilibrium in Health Insurance Exchanges: Price Competition and Subsidy Design under the ACA," *Working Paper*, 2017.
- **Geruso, Michael and Timothy J. Layton, Grace McCormack, and Mark Shepard,** "The Two Margin Problem in Insurance Markets," *Working Paper*, 2019.

(d) Government-provided insurance / pricing of care

- ***Clemens, Jeffrey, and Joshua D. Gottlieb.** "In the shadow of a giant: Medicare's influence on private physician payments." *Journal of Political Economy*, 2017, 125 (1): 1-39.
- **Chan, David C., and Michael J. Dickstein.** "Industry input in policy making: Evidence from Medicare." *The Quarterly Journal of Economics*, 2019, 134 (3): 1299-1342.

3. Behavior of Medical Care Providers (6 lectures, Gong)

(a) Agency I: Induced Demand

- ***Chandra, Amitabh, David Cutler, and Zirui Song,** "Who Ordered That? The Economics of Treatment Choices in Medical Care," *Handbook of Health Economics*, Vol. 2, Elsevier B.V., 2011.
- ***Schnell, Molly,** "Physician Behavior in the Presence of a Secondary Market: The Case of Prescription Opioids," *Working Paper*, 2019, pp. 1–83.
- **Johnson, Erin M. and M. Marit Rehavi,** "Physicians treating physicians: Information and incentives in childbirth," *American Economic Journal: Economic Policy*, 2016, 8 (1), 115–141.

(b) Agency II: Other Margins

- ***Eliason, Paul J., Paul L. E. Grieco, Ryan C. Mcdevitt, and James W. Roberts,** "Strategic Patient Discharge: The Case of Long-Term Care Hospitals," *American Economic Review*, 2018, 108 (11), 3232–3265.
- ***Gandhi, Ashvin,** "Picking Your Patients: Selective Admissions in the Nursing Home Industry," SSRN Electronic Journal, 2020. "Picking Your Patients: Selective Admissions in the Nursing Home Industry," *Working Paper*, 2020.
- **Geruso, Michael, and Timothy Layton.** "Upcoding: evidence from Medicare on squishy risk adjustment." *Journal of Political Economy* 128.3 (2020): 984-1026.

(c) Provider Learning and Productivity

- ***Chandra, Amitabh and Douglas O. Staiger,** "Productivity spillovers in health care: Evidence from the treatment of heart attacks," *Journal of Political Economy*, 2007, 115 (1), 103–140.

- ***Crawford, Gregory S and Matthew Shum**, "Uncertainty and Learning in Pharmaceutical Demand," *Econometrica*, 2005, 73 (4), 1137–1173.
- **Dickstein, Michael J.** "Efficient provision of experience goods: Evidence from antidepressant choice." *Working Paper*, 2018.
- **Currie, Janet M. and W. Bentley MacLeod**, "Understanding Doctor Decision Making: The Case of Depression Treatment," *Econometrica*, 2020, 88 (3), 847–878.
- **Abaluck, Jason, Leila Agha, Chris Kabrhel, Ali Raja, and Arjun Venkatesh**, "The determinants of productivity in medical testing: Intensity and allocation of care," *American Economic Review*, 2016, 106 (12), 3730–3764.
- **Doyle, Joseph J., John A. Graves, Jonathan Gruber, and Samuel A. Kleiner**, "Measuring Returns to Hospital Care: Evidence from Ambulance Referral Patterns," *Journal of Political Economy*, feb 2015, 123 (1), 170–214.
- **Kolstad, Jonathan T**, "Information and Quality When Motivation Is Intrinsic: Evidence from Surgeon Report Cards," *American Economic Review*, 2013, 103 (7), 2875–2910.

(d) Design of Physician Payment Schemes (Maini)

- ***Clemens, Jeffrey and Joshua D. Gottlieb**, "Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health?," *American Economic Review*, 2014, 104 (4), 1320–1349.
- **Dafny, Leemore S.**, "How Do Hospitals Respond to Price Changes?," *American Economic Review*, 2005, 95 (5), 1525–1547.

4. Vertical and Horizontal Relationships in Health Care Markets (6 lectures, Maini)

(a) Bargaining and Restricted Networks

- ***Ho, Katherine**, "The welfare effects of restricted hospital choice in the US medical care market," *Journal of Applied Econometrics*, Nov 2006, 21 (7), 1039–1079.
- ***Ho, Kate and Robin S. Lee**, "Equilibrium provider networks: Bargaining and exclusion in health care markets," *American Economic Review*, 2019, 109 (2), 473–522.
- **Ho, Katherine**, "Insurer-provider networks in the medical care market," *American Economic Review*, 2009, 99 (1), 393–430

- **Ericson, Keith Marzilli and Amanda Starc**, “Measuring Consumer Valuation of Limited Provider Networks,” *American Economic Review: Papers and Proceedings*, 2015, 105 (5), 115–119.
- **Liebman, Eli**, “Bargaining in Markets with Exclusion: An Analysis of Health Insurance Networks,” 2018.
- **Ghili, Soheil**, “Network Formation and Bargaining in Vertical Markets: The Case of Narrow Networks in Health Insurance,” 2020

(b) Hospital Mergers

- ***Gowrisankaran, Gautam, Aviv Nevo, and Robert Town**, “Mergers when prices are negotiated: Evidence from the hospital industry,” *American Economic Review*, 2015, 105 (1), 172–203
- **Dafny, Leemore, Kate Ho, and Robin S. Lee**, “The price effects of cross-market mergers: theory and evidence from the hospital industry,” *RAND Journal of Economics*, 2019, 50 (2), 286–325.

(c) Insurer Mergers

- ***Ho, Kate and Robin S. Lee**, “Insurer Competition in Health Care Markets,” *Econometrica*, 2017, 85 (2), 379–417
- ***Dafny, Leemore, Mark Duggan, and Subramaniam Ramanarayanan**, “Paying a Premium on Your Premium? Consolidation in the US Health Insurance Industry,” *American Economic Review*, Apr 2012, 102 (2), 1161–1185.
- **Trish, Erin E. and Bradley J. Herring**, “How do health insurer market concentration and bargaining power with hospitals affect health insurance premiums?,” *Journal of Health Economics*, 2015, 42, 104–114.

(d) Hospital-Physician Integration

- ***Dranove, David and Christopher Ody**, “Employed for Higher Pay? How Medicare Payment Rules Affect Hospital Employment of Physicians,” *American Economic Journal: Economic Policy*, 2019, 11 (4), 249–271.
- ***Cutler, David M., Leemore Dafny, David C. Grabowski, Steven Lee, and Christopher Ody**, “Vertical Integration of Healthcare Providers Increases Self-Referrals and Can Reduce Downstream Competition: The Case of Hospital-Owned Skilled Nursing Facilities,” *NBER Working Paper Series*, 2020, 28305, 43.

- **Capps, Cory, David Dranove, and Christopher Ody**, “The effect of hospital acquisitions of physician practices on prices and spending,” *Journal of Health Economics*, 2018, 59, 139–152.
- **Baker, Laurence C., M. Kate Bundorf, and Daniel P. Kessler**, “The effect of hospital/physician integration on hospital choice,” *Journal of Health Economics*, 2016, 50, 1–8.

(e) Other vertical relations in health care markets

- ***Eliason, Paul J., Benjamin Heebsh, Ryan C. McDevitt, and James W. Roberts**, “How Acquisitions Affect Firm Behavior and Performance: Evidence from the Dialysis Industry,” *Quarterly Journal of Economics*, 2020, 135 (1), 221–267.
- ***Grennan, Matthew**, “Bargaining ability and price discrimination: Empirical evidence from medical devices,” *American Economic Review*, 2013, 103 (1), 145–177.
- **Grennan, Matthew, and Ashley Swanson**, “Transparency and negotiated prices: The value of information in hospital-supplier bargaining,” *Journal of Political Economy*, 2020, 128 (4), 1234–1268.
- **Feng, Josh**, “Pricing Intermediaries in Prescription Drug Markets: Impact and Policy Implications,” 2019.

5. The Pharmaceutical Market (5 lectures, Maini)

(a) Introduction to pharmaceutical markets

- ***Lakdawalla, Darius N.**, “Economics of the pharmaceutical industry,” *Journal of Economic Literature*, 2018, 56 (2), 397–449.
- **Kakani, Pragya, Michael Chernew, and Amitabh Chandra**, “Rebates in the Pharmaceutical Industry: Evidence from Medicines Sold in Retail Pharmacies in the U.S.,” 2020.

(b) Competition

- ***Maini, Luca, Josh Feng, Thomas Hwang, and Jacob Klimek**, “Biosimilar Entry and the Pricing of Biologic Drugs,” 2021.
- ***Lu, Z. John and William S. Comanor**, “Strategic pricing of new pharmaceuticals,” *Review of Economics and Statistics*, 1998, 80 (1), 108–118.

- ***Grabowski, Henry, Genia Long, Richard Mortimer, and Ani Boyo**, “Updated trends in US brand name and generic drug competition,” *Journal of Medical Economics*, 2016, 19 (9), 836–844.
- **Frank, Richard G. and David S. Salkever**, “Generic entry and the pricing of pharmaceuticals,” *Journal of Economics and Management Strategy*, 1997, 6 (1), 75–90
- **Howard, David H., Peter B. Bach, Ernst R. Berndt, and Rena M. Conti**, “Pricing in the Market for Anticancer Drugs,” *Journal of Economic Perspectives*, feb 2015, 53 (1), 139–162.
- **Scott Morton, Fiona M., Ariel Dora Stern, and Scott Stern**, “The Impact of the Entry of Biosimilars: Evidence from Europe,” *Review of Industrial Organization*, aug 2018, 53 (1), 173–210.

(c) Price Regulation

- ***Duggan, Mark and Fiona M. Scott Morton**, “The Distortionary Effects of Government Procurement: Evidence From Medicaid Prescription Drug Purchasing,” *Quarterly Journal of Economics*, 2006, 121 (1), 1–30.
- ***Duggan, Mark and Fiona M. Scott Morton**, “The Effect of Medicare Part D on Pharmaceutical Prices and Utilization,” *American Economic Review*, 2010, 100 (1), 590–607.
- **Feng, Josh, Thomas Hwang, and Luca Maini**, “Profiting from Most-Favored Customer Procurement Rules: Evidence from Medicaid,” 2020, pp. 1–30.
- **Ridley, David B. and Chung-Ying Lee**, “Does Medicare Reimbursement Drive Up Drug Launch Prices?,” *The Review of Economics and Statistics*, 2020.
- **Maini, Luca and Fabio Pammolli**, “Reference Pricing as a Deterrent to Entry: Evidence from the European Pharmaceutical Market,” 2019.
- **Dubois, Pierre, Ashvin Gandhi, and Shoshana Vasserman**, “Bargaining and International Reference Pricing in the Pharmaceutical Industry,” 2019, (May), 1–75.
- **Yurukoglu, Ali, Eli Liebman, and David B. Ridley**, “The Role of Government Reimbursement in Drug Shortages,” *American Economic Journal: Economic Policy*, may 2017, 9 (2), 348–382.

(d) Innovation

- ***Cunningham, Colleen, Florian Ederer, and Song Ma**, “Killer Acquisitions,” 2019.

- ***Hamilton, Barton H., Andrés Hincapié, Robert A. Miller, and Nicholas W. Ppageorge,** “Innovation and Diffusion of Medical Treatment,” *NBER Working Paper*, 2018.
- ***Dubois, Pierre, Olivier de Mouzon, Fiona Scott-Morton, and Paul Seabright,** “Market size and pharmaceutical innovation,” *The RAND Journal of Economics*, 2015, 46 (4), 844–871
- **Blume-Kohout, Margaret E. and Neeraj Sood,** “Market Size and Innovation: Effects of Medicare Part D on Pharmaceutical Research and Development,” *Journal of Public Economics*, 2013, 97 (January), 327–336.
- **Dranove, David, Craig Garthwaite, and Manuel I. Hermosilla,** “Expected Profits and the Scientific Novelty of Innovation,” 2020.
- **Krieger, Joshua, Danielle Li, and Dimitris Papanikolaou,** “Developing Novel Drugs,” *SSRN Electronic Journal*, 2018.

(e) Advertising

- **Shapiro, Bradley T.,** “Promoting Wellness or Waste? Evidence from Antidepressant Advertising,” 2018.
- **Sinkinson, Michael and Amanda Starc,** “Ask Your Doctor? Direct-to-Consumer Advertising of Pharmaceuticals,” *Review of Economic Studies*, 2018, 86 (January), 1–46.

Compliance with the COVID-19 Community Standards for In-Person Instruction We are still in the midst of a global pandemic. All enrolled students are required to wear a mask covering your mouth and nose at all times in our classroom. This requirement is to protect our educational community – your classmates and me – as we learn together. For details on the Community Standards, see Carolina Together (carolinatogether.unc.edu). If you fail to comply with the Community Standards, we will ask you to leave immediately and will submit a report to the Office of Student Conduct.

For students, compliance with the COVID-19 Community Standards is a condition of continued enrollment. Failure to comply places other members of the community at risk and may result in administrative or disciplinary action, including, but not limited to, restriction on access to or use of University facilities, removal from University housing, disenrollment from one or more in-

person courses, transition to remote-only instruction, dismissal from the University and/or other interventions necessary to effect compliance and protect the well-being of the campus community.

Accessibility Resources and Service (ARS) The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email ars@unc.edu.

Counseling and Psychological Services (CAPS) CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

Title IX Resources Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Please contact the Director of Title IX Compliance (Adrienne Allison – Adrienne.allison@unc.edu), Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

Honor Code Students are bound by the Honor Code in taking exams and in written work. The Honor Code of the University is in effect at all times, and the submission of all course work signifies understanding and acceptance of those requirements. Plagiarism will not be tolerated. Please consult honor.unc.edu or talk with the instructors if you have any questions about the Honor Code.