

About the Coursemaster



Byron Powell is an Assistant Professor and Co-Director of the Center for Mental Health Services Research at the Brown School at Washington University in St. Louis. His scholarship has focused on barriers and facilitators to implementing evidence-based practices; designing, tailoring, and assessing the effectiveness of implementation strategies; and advancing implementation research methods. His research has primarily been supported by the National Institutes of Health. Byron has served as faculty for several training initiatives, including the Implementation Research Institute, Training Institute for Dissemination and Implementation Research in Health (TIDIRH), TIDIRH-Ireland, TIDIRH-Australia, and Knowledge Translation Canada Summer Institute. He is President of the Society for Implementation Research Collaboration, and is on the editorial boards of *Implementation Science* and *Implementation Research and Practice*.

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Teaching Assistant (TA):

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Phone number: TBD
Email address: [TBD](#)
Preferred method of contact: email

About This Course

Required Texts:

- Wensing, M., Grol, R., & Grimshaw, J. (2020). *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.). Hoboken, New Jersey: Wiley-Blackwell.
- Additional readings will be uploaded and/or linked through Canvas.

Course Location:

This course will be taught in the Clinical Research Training Center (CRTC) classroom, which is located on the second floor of Wohl Hospital.

Course Description:

Internationally, there is a substantial gap between the establishment of effective interventions and their delivery in routine practice. Implementation research has emerged as a means of addressing that gap and is defined as “the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices” to improve the quality of service delivery in routine care settings (Eccles & Mittman, 2006). It includes the study of influences on professional and organizational behavior that impact implementation effectiveness. This course focuses developing and evaluating implementation strategies, or the methods and techniques that are used to enhance the adoption, implementation, sustainment, and scale-up of effective interventions. The course will introduce students to a wide range of implementation strategies; equip them to systematically design implementation strategies to address multilevel determinants (i.e., barriers and facilitators) of implementation; propose potential mechanisms of change; and rigorously evaluate implementation strategies. Intervention-, patient-, provider-, organizational-, policy and system-, and multi-level implementation strategies will be covered, with individual and group assignments giving students ample opportunity to apply course principles to their own areas of interest.

Target audience:

This course is intended for graduate students, postdocs, staff, and faculty in medicine, social work, public health, and other areas of health science who are interested in developing and/or testing strategies to promote improved implementation of effective health and social service interventions.

Course Schedule (may be revised)

Class 1: Introduction to Implementation Strategies and Outcomes

Overview: This session will include a review of implementation research and associated terminology, introduce fundamental issues related to implementation strategies and outcomes, and provide an overview of the course structure and assignments.

Required Reading:

- Curran, G. M. (2020). Implementation science made too simple: A teaching tool. *Implementation Science Communications*, 1(27), 1–3.
- Lane-Fall, M. B., Curran, G. M., & Beidas, R. S. (2019). Scoping implementation science for the beginner: Locating yourself on the “subway line” of translational research. *BMC Medical Research Methodology*, 19(133), 1–5.
- Hamilton, A. B. & Mittman, B. S. (2018). Implementation science in health care. In R. C. Brownson, G. A. Colditz, & E. K. Proctor (Eds.), *Dissemination and implementation research in health: Translating science to practice* (2nd ed.; pp. 385–400). New York: Oxford University Press.
- Powell, B. J., McMillen, J. C., Proctor, E. K., Carpenter, C. R., Griffey, R. T., Bunger, A. C., Glass, J. E., & York, J. L. (2012). A compilation of strategies for implementing clinical innovations in health and mental health. *Medical Care Research and Review*, 69(2), 123–157.
- Powell, B. J., Fernandez, M. E., Williams, N. J., Aarons, G. A., Beidas, R. S., Lewis, C. C., McHugh, S. M., & Weiner, B. J. (2019). Enhancing the impact of implementation strategies in healthcare: A research agenda. *Frontiers in Public Health*, 7(3), 1-9.

Optional Reading:

- Slaughter, S. E., Zimmerman, G. L., Nuspl, M., Hanson, H. M., Albrecht, L., Esmail, R., Sauro, K., Newton, A. S., Donald, M., Dyson, M. P., Thomson, D., & Hartling, L. (2017). Classification schemes for knowledge translation interventions: A practical resource for researchers. *BMC Medical Research Methodology*, 17(161), 1–11.
- Kok, G., Gottlieb, N. H., Peters, G. Y., Mullen, P. D., Parcel, G. S., Ruiter, R. A. C., Fernández, M. E., Markham, C., & Bartholomew, L. K. (2016). A taxonomy of behaviour change methods: An Intervention Mapping approach. *Health Psychology Review*, 10(3), 297–312.
- Michie, S., Richardson, M., Johnston, M., Abraham, C., Francis, J., Hardeman, W., Eccles, M. P., Cane, J., & Wood, C. E. (2013). The behavior change technique taxonomy (v1) of 93 hierarchically clustered techniques: Building an international consensus for the reporting of behavior change interventions. *Annals of Behavioral Medicine*, 46(1), 81–95.
- Powell, B. J., Waltz, T. J., Chinman, M. J., Damschroder, L. J., Smith, J. L., Matthieu, M. M., Proctor, E. K., & Kirchner, J. E. (2015). A refined compilation of implementation strategies: Results from the Expert Recommendations for Implementing Change (ERIC) project. *Implementation Science*, 10(21), 1–14.
- Waltz, T. J., Powell, B. J., Matthieu, M. M., Damschroder, L. J., Chinman, M. J., Smith, J. L., Proctor, E. K., & Kirchner, J. E. (2015). Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: Results from the Expert Recommendations for Implementing Change (ERIC) study. *Implementation Science*, 10(109), 1–8.

Class 2: Understanding How Implementation Strategies Work (Mechanisms of Change)

Overview: This session will focus on the mechanisms through which implementation strategies change proximal and distal outcomes. Students will be guided to consider not just whether or not a strategy is likely to be effective, but how and why it may be effective and how we might optimize it if it fails. A range of theories and theoretically-derived determinants that can inform the identification of potential mechanisms will be covered. Methods for depicting mechanisms of change (e.g., causal pathway diagrams, logic models) will be introduced. Finally, the current state of efforts to identify mechanisms of change in implementation strategies will be examined, and an emerging research agenda generated from an Agency for Healthcare Research and Quality-funded conference series will be introduced.

Potential Guest Speaker(s):

Cara Lewis, Kaiser Permanente Washington Health Research
Brian Mittman, Kaiser Permanente
Nate Williams, Boise State University

Required Reading:

- Wensing, M. & Grol, R. (2020). Theories on implementation of change in healthcare. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 29-44). Hoboken, New Jersey: Wiley-Blackwell.
- Wensing, M. & Grol, R. (2020). Determinants of implementation. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 157-172). Hoboken, New Jersey: Wiley-Blackwell.
- Lewis, C. C., Klasnja, P., Powell, B. J., Lyon, A. R., Tuzzio, L., Jones, S., & Walsh-Bailey, C. (2018). From classification to causality: Advancing Understanding of Mechanisms of change in implementation science. *Frontiers in Public Health*, 6(136), 1–6.
- Lewis, C. C., Boyd, M. R., Walsh-Bailey, C., Lyon, A. R., Beidas, R., Mittman, B., Aarons, G. A., Weiner, B. J., & Chambers, D. A. (2020). A systematic review of empirical studies examining mechanisms of implementation in health. *Implementation Science*, 15(21), 1–25.
- Williams, N. J. (2016). Multilevel mechanisms of implementation strategies in mental health: Integrating theory, research, and practice. *Administration and Policy in Mental Health and Mental Health Services Research*, 43(5), 783–798.

Class 3: Systematically Designing and Tailoring Implementation Strategies

Overview: This session will provide an overview of methods that can be used to systematically design and tailor implementation strategies. This includes methods for identifying and prioritizing implementation determinants (i.e., barriers and facilitators) and matching implementation strategies to address them.

Potential Guest Speaker(s):

Rinad Beidas, University of Pennsylvania
Maria Fernandez, University of Texas Health Sciences Center at Houston
Stephanie Mazzucca, Washington University in St. Louis

Required Reading:

- Wensing, M. & Grol, R. (2020). Methods to identify and analyze determinants of implementation. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 173-188). Hoboken, New Jersey: Wiley-Blackwell.
- Grol, R. & Wensing, M. (2020). Selection of strategies for improving patient care. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 191-206). Hoboken, New Jersey: Wiley-Blackwell.
- Colquhoun, H. L., Squires, J. E., Kolehmainen, N., & Grimshaw, J. M. (2017). Methods for designing interventions to change healthcare professionals' behaviour: A systematic review. *Implementation Science*, 12(30), 1–11.
- Powell, B. J., Beidas, R. S., Lewis, C. C., Aarons, G. A., McMillen, J. C., Proctor, E. K., & Mandell, D. S. (2017). Methods to improve the selection and tailoring of implementation strategies. *Journal of Behavioral Health Services & Research*, 44(2), 177–194.

Class 4: Systematically Designing and Tailoring Implementation Strategies (continued) and Tracking and Reporting Implementation Strategies

Overview: The first part of this session will continue our discussion of specific methods for designing and tailoring implementation strategies, including a pragmatic tool for matching implementation strategies to address identified barriers as well as the use of Implementation Mapping (i.e., Intervention Mapping). The second portion of this session will focus on specifying implementation strategies in sufficient detail so that they can be replicated in research and practice, and methods for prospectively tracking implementation strategy use throughout the course of an implementation effort.

Potential Guest Speaker(s):

Maria Fernandez, University of Texas Health Science Center at Houston
Laura Damschroder, University of Michigan
Jennifer Becan, Texas Christian University

Required Reading:

- Waltz, T. J., Powell, B. J., Fernández, M. E., Abadie, B., & Damschroder, L. J. (2019). Choosing implementation strategies to address contextual barriers: Diversity in recommendations and future directions. *Implementation Science, 14*(42), 1–15.
- Fernandez, M. E., ten Hoor, G. A., van Lieshout, S., Rodriguez, S. A., Beidas, R. S., Parcel, G., Ruiters, R. A. C., Markham, C. M., & Kok, G. (2019). Implementation mapping: Using intervention mapping to develop implementation strategies. *Frontiers in Public Health, 7*(158), 1–15.
- Proctor, E. K., Powell, B. J., & McMillen, J. C. (2013). Implementation strategies: Recommendations for specifying and reporting. *Implementation Science, 8*(139), 1–11.
- Wiltsey Stirman, S., Baumann, A. A., & Miller, C. J. (2019). The FRAME: An expanded framework for reporting adaptations and modifications to evidence-based interventions. *Implementation Science, 14*(58), 1–10.

Additional Reading:

- Powell, B. J., Haley, A. D., Patel, S. v., Amaya-Jackson, L., Glienke, B., Blythe, M., Lengnick-Hall, R., McCrary, S., Beidas, R. S., Lewis, C. C., Aarons, G. A., Wells, K. B., Saldana, L., McKay, M. M., & Weinberger, M. (2020). Improving the implementation and sustainment of evidence-based practices in community mental health organizations: A study protocol for a matched-pair cluster randomized pilot study of the Collaborative Organizational Approach to Selecting and Tailoring Implementation Strategies (COAST-IS). *Implementation Science Communications, 1*(9), 1–13.
- Wilson, P. M., Sales, A., Wensing, M., Aarons, G. A., Flottorp, S., Glidewell, L., Hutchinson, A., Presseau, J., Rogers, A., Sevdalis, N., Squires, J., & Straus, S. (2017). Enhancing the reporting of implementation research. *Implementation Science, 12*(13), 1-5.
- Hoffman, T. C., Glasziou, P. P., Boutron, I., Milne, R., Perera, R., Moher, D., ... Michie, S. (2014). Better reporting of interventions: Template for intervention description and replication (TIDieR) checklist and guide. *BMJ, 348*(g1687), 1–12.
- Pinnock, H., Barwick, M., Carpenter, C. R., Eldridge, S., Grandes, G., Griffiths, C. J., ... Taylor, S. J. C. (2017). Standards for Reporting Implementation Studies (StaRI) statement. *BMJ, 356*(i6795).
- Bunger, A. C., Powell, B. J., Robertson, H. A., MacDowell, H., Birken, S. A., & Shea, C. (2017). Tracking implementation strategies: A description of a practical approach and early findings. *Health Research Policy and Systems, 15*(15), 1–12.
- Boyd, M. R., Powell, B. J., Endicott, D., & Lewis, C. C. (2018). A method for tracking implementation strategies: An exemplar implementing measurement-based care in community behavioral health clinics. *Behavior Therapy, 49*, 525–537.

Class 5: Evaluating Outcomes of Implementation

Overview: This session will focus on the range of proximal (e.g., implementation) and distal (e.g., clinical, public health) outcomes that are often used to evaluate the effectiveness of implementation strategies. The relationship between implementation and clinical outcomes will be examined. We will also discuss the appropriateness of different outcomes based upon stage of research, type of implementation strategy, and implementation phase. Qualitative, quantitative, and mixed methods approaches for assessing implementation outcomes will be illustrated.

Potential Guest Speaker(s):

Enola Proctor, Washington University in St. Louis
Bryan Weiner, University of Washington

Required Reading:

- Proctor, E. K., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G. A., Bunger, A., Griffey, R., & Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research*, 38(2), 65–76.
- Lewis et al. (Under Review). Updated systematic review of implementation outcome measures. *Implementation Research and Practice*.
- Weiner, B. J., Lewis, C. C., Stanick, C. S., Powell, B. J., Dorsey, C. N., Clary, A. S., Boynton, M. H., & Halko, H. M. (2017). Psychometric assessment of three newly developed implementation outcome measures. *Implementation Science*, 12(108), 1–12.
- Palinkas, L. A., Aarons, G. A., Horwitz, S., Chamberlain, P., Hurlburt, M., & Landsverk, J. (2011). Mixed methods designs in implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 38, 44–53.
- National Cancer Institute (n.d.). Qualitative methods in implementation science. <https://cancercontrol.cancer.gov/IS/docs/NCI-DCCPS-ImplementationScience-WhitePaper.pdf>

Class 6: Designs for Evaluating Implementation Strategies

Overview: This session will provide an overview of experimental and quasi-experimental designs that can be leveraged to evaluate implementation strategies. Options for small-scale pilot studies to more definitive, large-scale studies will be explored, and students will be encouraged to consider the strengths and weaknesses of various options. Particular attention will be paid to cluster randomized controlled trials, stepped wedge, and Sequential Multiple Assignment Randomized Trial (SMART) designs.

Potential Guest Lecturer(s):

Elvin Geng, Washington University in St. Louis
J. D. Smith, Northwestern University
Danny Almira, University of Michigan
Luke Wolfenden, University of Newcastle

Required Reading:

- Brown, C. H., Curran, G., Palinkas, L. A., Aarons, G. A., Wells, K. B., Jones, L., Collins, L. M., Duan, N., Mittman, B. S., Wallace, A., Tabak, R. G., Ducharme, L., Chambers, D., Neta, G., Wiley, T., Landsverk, J., Cheung, K., & Cruden, G. (2017). An overview of research and evaluation designs for dissemination and implementation. *Annual Review of Public Health*, 38, 1–22.
- Handley, M. A., Lyles, C. R., McCulloch, C., & Cattamanchi, A. (2018). Selecting and improving quasi-experimental designs in effectiveness and implementation research. *Annual Review of Public Health*, 39, 5–25.
- Wolfenden, L., Foy, R., Presseau, J., Grimshaw, J., Ivers, N., Powell, B. J., Taljaard, M., Wiggers, J., Sutherland, R., Nathan, N., Williams, C. M., Kingsland, M., Milat, A., Hodder, R., & Yoong, S. (Under Review). Designing and undertaking randomized implementation trials: A guide for researchers. *BMJ*.
- Hargreaves, J. R., Copas, A. J., Beard, E., Osrin, D., Lewis, J. J., Davey, C., Thompson, J. A., Baio, G., Fielding, K. L., & Prost, A. (2015). Five questions to consider before conducting a stepped wedge trial. *Trials*, 16(350), 1–4.
- Collins, L. M., Murphy, S. A., & Strecher, V. (2007). The multiphase optimization strategy (MOST) and the sequential multiple assignment randomized trial (SMART): New methods for more potent eHealth interventions. *American Journal of Preventive Medicine*, 32(5S), S112–S118.

Additional Reading:

- Mazzucca, S., Tabak, R. G., Pilar, M., Ramsey, A. T., Baumann, A. A., Kryzer, E., Lewis, E. M., Padek, M., Powell, B. J., & Brownson, R. C. (2018). Variation in research designs used to test the effectiveness of dissemination and implementation strategies: A review. *Frontiers in Public Health*, 6(32), 1–10.
- Wensing, M. & Grimshaw, J. (2020). Experimental designs for evaluation of implementation strategies. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 345-356). Hoboken, New Jersey: Wiley-Blackwell.

- Wensing, M. & Grimshaw, J. (2020). Observational evaluation of implementation strategies. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 357-368). Hoboken, New Jersey: Wiley-Blackwell.
- Hulscher, M. & Wensing, M. (2020). Process evaluation of implementation strategies. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 369-388). Hoboken, New Jersey: Wiley-Blackwell.

Class 7: Economic Evaluations in Implementation Science

Overview: There is a relative dearth of economic evaluations of implementation strategies. This session will provide students with various approaches to conducting economic analyses of implementation strategies.

Potential Guest Speakers:

Lisa Saldana, Oregon Social Learning Center
Ramesh Raghavan, New York University
Alex Dopp, RAND

Required Reading:

- Severens, J. L., Hoomans, T., Adang, E., & Wensing, M. (2020). Economic evaluation of implementation strategies. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 389-408). Hoboken, New Jersey: Wiley-Blackwell.
- Hoomans, T., & Severens, J. L. (2014). Economic evaluation of implementation strategies in health care. *Implementation Science*, 9(168), 1–6.
- Roberts, S. L. E., Healey, A., & Sevdalis, N. (2019). Use of health economic evaluation in the implementation and improvement science fields: A systematic literature review. *Implementation Science*, 14(72), 1–13.
- Dopp, A. R., Munday, P., Beasley, L. O., Silovsky, J. F., & Eisenberg, D. (2019). Mixed-method approaches to strengthen economic evaluations in implementation research. *Implementation Science*, 14(2), 1–9.

Class 8: Integrative Case Example - Audit and Feedback

Overview: This session will provide the opportunity for students to consolidate lessons from the first half of the class by applying them to a single strategy – audit and feedback. Specifically, students will receive an overview of the types of implementation determinants that audit and feedback can address, theories that guide its use and the assessment of potential mechanisms of change, accumulated evidence of effectiveness, and economic evaluations. They will design an audit and feedback strategy based upon available theory and evidence, and to design a study to evaluate the strategy. Students will submit a brief group paper that describes their audit and feedback strategy and the rationale for its design, as well as a justification for their chosen evaluation design and methods.

Potential Guest Lecturer(s):

Noah Ivers, University of Toronto
Heather Colquhoun, University of Toronto
Jeremy Grimshaw, University of Ottawa

Required Reading:

- Colquhoun, H. L., Squires, J. E., Kolehmainen, N., & Grimshaw, J. M. (2017). Methods for designing interventions to change healthcare professionals' behaviour: A systematic review. *Implementation Science*, 12(30), 1–11.
- Ivers, N., Jamtvedt, G., Flottorp, S., Young, J. M., Odgaard-Jensen, J., French, S. D., O'Brien, M. A., Johansen, M., Grimshaw, J., & Oxman, A. D. (2012). Audit and feedback: Effects on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews*, 6 Art. No.: CD000259, 1–227.
- Brehaut, J. C., Colquhoun, H. L., Eva, K. W., Carroll, K., Sales, A., Michie, S., Ivers, N., & Grimshaw, J. M. (2016). Practice feedback interventions: 15 suggestions for optimizing effectiveness. *Annals of Internal Medicine*, 1–8.

Foy, R., Skrypak, M., Alderson, S., Ivers, N. M., McInerney, B., Stoddart, J., Ingham, J., & Keenan, D. (2020). Revitalising audit and feedback to improve patient care. *BMJ*, 368(m213), 1–4.
<http://www.ohri.ca/auditfeedback/>

Class 9: Intervention-Focused Implementation Strategies

Overview: This session will focus on efforts to improve implementation by optimizing the interventions we are attempting to implement. We will review theoretically-derived characteristics of interventions that have been shown to influence implementation, and then focus on strategies that can be used to optimize interventions. Particular attention will be paid to how user-centered design approaches and systematic adaptation can be leveraged to ensure that interventions are more easily implemented. Students will be encouraged to identify ways in which the intervention(s) they are interested in implementing might be enhanced through what might be considered intervention-focused implementation strategies.

Potential Guest Lecturer(s):

Emily Haines, Wake Forest University
Aaron Lyon, University of Washington
Alex Dopp, RAND
Ana Baumann, Washington University in St. Louis
Shannon Wiltsey Stirman, Stanford University

Required Reading:

Grol, R. & Wensing, M. (2020). Characteristics of successful innovations. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 89-102). Hoboken, New Jersey: Wiley-Blackwell.

Lyon, A. R., & Bruns, E. J. (2019). User-centered redesign of evidence-based psychosocial interventions to enhance implementation: Hospitable soil or better seeds? *JAMA Psychiatry*, 76(1), 3–4.

Lyon, A. R., & Koerner, K. (2016). User-centered design for psychosocial intervention development and implementation. *Clinical Psychology: Science and Practice*, 23, 180–200.

Chambers, D. A., Glasgow, R. E., & Stange, K. C. (2013). The dynamic sustainability framework: Addressing the paradox of sustainment amid ongoing change. *Implementation Science*, 8(117), 1–11.

Wiltsey Stirman, S., Baumann, A. A., & Miller, C. J. (2019). The FRAME: An expanded framework for reporting adaptations and modifications to evidence-based interventions. *Implementation Science*, 14(58), 1–10.

Class 10: Patient-Level Implementation Strategies

Overview: This session will focus on implementation strategies that target the patient or client-level, such as efforts to increase demand for or increase adherence to an intervention. Additionally, students will be encouraged to consider when, why, and how patients should be engaged in implementation research.

Readings:

Elwyn, G. & Price, A. (2020). Engaging patients in healthcare improvement and innovation. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 253-262). Hoboken, New Jersey: Wiley-Blackwell.

Class 11: Provider-Level Implementation Strategies

Overview: This session will cover common implementation strategies that focus on changing provider-level behavior, such as educational workshops and opinion leaders. The theories that guide these strategies, provider-level mechanisms, and evidence to support these strategies will be scrutinized.

Required Reading:

Grol, R. & Wensing, M. (2020). Dissemination of innovations. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 207-220). Hoboken, New Jersey: Wiley-Blackwell.

Wensing, M., Fluit, C., Grimshaw, J., & Grol, R. (2020). Educational implementation strategies. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 221-234). Hoboken, New Jersey: Wiley-Blackwell.

Class 12: Organizational-Level Implementation Strategies

Overview: This session will focus on the theoretical and empirical basis of organizational implementation strategies. Organizational theories that can inform implementation strategies as well as the mechanisms through which they operate will be considered. A range of organizational strategies will be reviewed, including their theoretical basis and proposed mechanism(s) of change and the evidence to support their use. Finally, challenges in conducting evaluations of organizational-level implementation strategies will be highlighted.

Potential Guest Lecturer(s):

Greg Aarons, University of California San Diego
Mark Ehrhart, University of Central Florida
Nate Williams, Boise State University
JoAnn Kirchner, University of Arkansas for Medical Sciences

Required Reading:

Aarons, G. A., Moullin, J. C., & Ehrhart, M. G. (2018). The role of organizational processes in dissemination and implementation research. In R. C. Brownson, G. A. Colditz, & E. K. Proctor (Eds.), *Dissemination and implementation research in health: Translating science to practice* (2nd ed., pp. 121–142). Oxford University Press.

Wensing, M., Laurant, M., & Grol, R. (2020). Organizational implementation strategies. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 263-274). Hoboken, New Jersey: Wiley-Blackwell.

Glisson, C., & Williams, N. J. (2015). Assessing and changing organizational social contexts for effective mental health services. *Annual Review of Public Health*, 36, 507–523.

Aarons, G. A., Ehrhart, M. G., & Farahnak, L. R. (2014). Aligning leadership across systems and organizations to develop a strategic climate for evidence-based practice implementation. *Annual Review of Public Health*, 35, 255–274.

Class 13: Policy- and System-Level Implementation Strategies

Overview: This session will focus on policy and system-level implementation strategies. The Policy Ecology Framework will serve as an orienting framework, and a number of examples of implementation strategies that operate at these levels will be provided. In addition to investigating the theoretical and empirical basis for these strategies, this session will present unique challenges in evaluating changes at the policy and systems levels.

Potential Guest Lecturer(s):

Ramesh Raghavan, New York University
Jonathan Purtle, Drexel University
Ross Brownson, Washington University in St. Louis
Rebecca Lengnick-Hall, Northwestern University

Required Reading:

Raghavan, R., Bright, C. L., & Shadoin, A. L. (2008). Toward a policy ecology of implementation of evidence-based practices in public mental health settings. *Implementation Science*, 3(26), 1–9.

Powell, B. J., Beidas, R. S., Rubin, R. M., Stewart, R. E., Benjamin Wolk, C., Matlin, S. L., Weaver, S., Hurford, M. O., Evans, A. C., Hadley, T. R., & Mandell, D. S. (2016). Applying the policy ecology framework to Philadelphia's behavioral health transformation efforts. *Administration and Policy in Mental Health and Mental Health Services Research*, 43, 909–926.

Wensing, M., Pfaff, H., & Grol, R. (2020). Health system strategies for implementation. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 299-312). Hoboken, New Jersey: Wiley-Blackwell.

Class 14: Multi-Level Implementation Strategies

Overview: This session will provide an opportunity to consider how strategies can be designed to operate synergistically across various ecological levels. Specific heuristics for designing multilevel implementation strategies will be considered, and challenges in evaluating both multifaceted and multilevel implementation strategies will be discussed.

Potential Guest Speakers:

Bryan Weiner, University of Washington
Brian Mittman, Kaiser Permanente

Required Readings:

Hulscher, M. & Wensing, M. (2020). Multifaceted implementation strategies. In M. Wensing, R. Grol, & J. Grimshaw (Eds.), *Improving Patient Care: The Implementation of Change in Health Care* (3rd ed.; pp. 313-328). Hoboken, New Jersey: Wiley-Blackwell.
Weiner, B. J., Lewis, M. A., Clauser, S. B., & Stitzenberg, K. B. (2012). In search of synergy: Strategies for combining interventions at multiple levels. *JNCI Monographs*, 44, 34–41.
Hall, K. L., Oh, A., Perez, L. G., Rice, E. L., Patel, M., Czajkowski, S., & Klesges, L. (2018). The ecology of multilevel intervention research. *Translational Behavioral Medicine*, 8, 968–978.

Class 15: Group Presentations and Emerging Priorities in Implementation Science

Assessment/Grading

Grade Composition:

Assignments must be turned in via the online assignment portal in Canvas by the beginning of class on the due date.

Grade (Percent of Points)
A+ (98.5% to 100%)
A (93.0% to 98.4%)
A- (90.0% to 92.9%)
B+ (88.5% to 89.9%)
B (83.0% to 88.4%)*
B- (80.0% to 82.9%)
C+ (78.5% to 79.9%)
C (73.0% to 78.4%)
C- (70.0% to 72.9%)

* Minimum for core courses if getting an MSCI

Late Assignments:

Late assignments will result in a 10% deduction of points off the assignment score (for each day late) and PRE-APPROVED late submissions will only be accepted up to 1 week late, unless there are extenuating circumstances. A death in the family is an example of an extenuating circumstance.

Attendance Requirement:

10% of your final grade will be determined by your attendance and appropriate professional behaviors observed during class. Unprofessional behaviors (including but not limited to: arriving late, leaving early, falling asleep, inappropriate use of technology and social media during class, expressing intolerance for differing viewpoints) will result in a minimum of 5 point deduction in participation grade.

Your presence or absence will affect the learning environment for you and your fellow classmates. Therefore, each absence from class will result in a minimum of 10-point deduction in participation grade; considerations for professional or personal emergency situations are at the instructor's discretion on a case-by-case basis. Students are expected to come to class prepared to participate in discussions based on the readings, role-plays and other course materials (i.e. sharing a personal genogram, initiating a discussion based on a quote from the readings, sharing an answer to a workbook question, appropriate behavior exhibited during role-plays, etc.). Participation beyond class sessions is also a requirement for this course. Participation in the course's online discussion board is required; at least 1 thoughtful post during 3 of the 4 modules throughout the semester, 3 posts total. In addition, completing and submitting the ALR online training completion certificate prior to class #5 is worth 10 points of your participation grade.

Completing the course evaluations online at the middle and end of the semester will also be factored into your participation grade. Final evaluations must be submitted by DATE to be considered for your participation grade.

Technology Usage During Class:

When class starts, please turn off ringers.

Feedback and Grading Timeline:

Assignments will typically be graded and returned 1-2 weeks after they are received.

Technical Support

If you have any technical problems accessing MyCanvas please e-mail crtc@email.wustl.edu. Note that this mailbox is not monitored in the evening or on weekends. If you need immediate help after hours please put a service request into <https://wusm.service-now.com>.

Course Policies**Participation (Expectations):**

- Our classroom environment should promote the respectful exchange of ideas.
- Successful completion of this course requires that a student keep up with assignments and participate in all course activities.

Drop Dates:

You can drop for any reason during the course of the semester. However, you may only receive a partial or no tuition reimbursement depending upon how far into the semester you drop the course. See the [Academic Calendar](#) for your program for specific dates and reimbursement policies. Late withdrawals will 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](#).

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](#).

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 copying information from another student.
- 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. 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). 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.

Disability Resources:

Washington University is committed to providing accommodations and/or services to students with documented disabilities. Washington University's [Cornerstone: Center for Advanced Learning Disability Resources](#) is the University's official resource for students with disabilities and students with suspected disabilities. DR assists students with disabilities by providing guidance and accommodations to ensure equal access to our campus, both physically and academically. To learn more about its services, initiate the process of formal documentation and/or to arrange for accommodations, please contact [Disability Resources](#) at the start of the course.

Sexual Assault Resources:

You can also speak confidentially and learn about available resources by contacting [Dr. Gladys Smith, PhD](#), Sexual Violence Prevention Therapist and Licensed Psychologist at the Medical Campus, (314) 362-2404. Additionally, you can report incidents to the Office of Student Affairs or by contacting WUSM Protective Services 314-362-4357 or your local law enforcement agency.

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

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/