

MCR 750/IP 772
Team Science in Clinical Research
100% Online

Course Placement	Spring 2021
Credit	1 Semester Hour
Time/Location	Online
Course Dates	Start: January 4, 2020 End: April 23, 2020
Course Faculty	Melissa Hortman hortmanm@musc.edu Daniel Lackland lackland@musc.edu Dayan Ranwala ranwala@musc.edu
Tech Support	MUSC Help Desk, 843-792-9700

Course Description

An emphasis will be placed on the competencies and processes associated with the concepts of *team science* in translational. Solving complex societal problems (e.g., environment, poverty, and cancer, health care) requires the integration of specialized knowledge bases. However, as the volume of scientific knowledge has increased over time, it has become increasingly difficult for any single individual to have deep expertise in all needed areas of science. Addressing today's complex problems requires the high degree of cross-disciplinary collaboration, referred to as "Team Science". This course offers practical guidance about how best to engage in team science to: pursue complex scientific questions, work effectively with team members, and produce high impact research outcomes that help meet society's needs.

Course Materials

There are no texts that need to be purchased for this course. All course materials and readings are provided within the course online.

Course Objectives

At the end of this course students will be able to:

1. Prepare an individual development plan and mentor-mentee plan to highlight interprofessional work and significant published papers and abstracts.
2. Complete the NIH Biosketch including the 'team science' attributes.
3. Describe the research team with synergy rather than summation with metrics.
4. Complete a search and identify potential investigators for their team focused on multidisciplinary, interdisciplinary, and transdisciplinary research.
5. Formulate a plan to evaluate a scientific team for improvement in team performance.
6. Describe factors that contribute to the success of a scientific team.
7. Analyze the role of conflict in the life cycle of a scientific team.

Time Investment

This course will be delivered 100% online. This requires the online equivalent of 750 minutes of instruction and an additional 1500 minutes of supporting activities.

Attendance

As this course is taught online, you do not need to be physically present in a classroom. However, you are responsible for reading and viewing all the assigned materials and must adhere to the deadlines set by the instructor. Completing the two block packet submission is required, thus logging in and reviewing the course content will count as your attendance.

Communication Expectations

Professionalism is expected throughout the course whether on Discussion Boards, through email, or in assignments. Remember to apply general netiquette when communicating online.

Plagiarism statement

Plagiarism is a form of academic misconduct and is the use of another person's words or ideas without providing credit to that person. It is the theft of another person's words or ideas to give the impression that you created them. These words and ideas may be from a variety of sources including printed works, speeches, presentations, and/or Internet sites and documents. Appropriate and complete referencing of words and ideas obtained from others is a requirement in all courses. If a work is anonymous, as may be the case with some Internet documents, it still must be fully referenced.

Grading

Honors = 95% or above

Pass = 70% - 94%

Fail = below 70%

Graded Assignments	Points
Block 1 Packet 1. Personality Assessment 2. Individual Development Plan 3. Mentor-Mentee Plan 4. Biosketch and CV	50%
Block 2 Packet 1. Research Elevator Pitch 2. Orchid ID and Commons Registration 3. Biosketch with peer feedback files 4. Team Assembly	50%

Non-Graded Online Participation

TeamSTEPPS Certificate (Opt-in)

TeamSTEPPS is an evidence-based set of teamwork tools, aimed at optimizing patient outcomes by improving communication and teamwork skills among health care professionals. Developed by the Department of Defense (DoD) and the Agency for Healthcare Research and Quality (AHRQ), it integrates teamwork into practice to improve the quality, safety, and the efficiency of health care. TeamSTEPPS curriculum is based on a framework of four core competencies: leading teams, mutual support, situation monitoring, and communication. Embedded in the Team Science course, you will learn the framework as well as have the opportunity to receive a TeamSTEPPS certificate by completing six unique experiences.

All certificate work must be completed by April 23, 2021 to receive certificate.

Team Science Community Calls

Community calls are not mandatory, monthly meetings to engage with one another on various topics around Team Science. Experts from around the country will join us as we discuss various current topics. This is a time to get together and build community. It is highly encouraged to take part in these calls to build community and hear from others about their experiences in this realm.

1. Block 1
 - a. Thursday, January 21, 2021 at 3:00-4:00 PM EST
 - b. Thursday, February 25, 2021 at 3:00-4:00 PM EST
2. Block 2
 - a. Thursday, March 18, 2021 at 3:00-4:00 PM EST
 - b. Thursday, April 15, 2021 at 3:00-4:00 PM EST

Course Feedback

1. Block 1 Survey
2. Midterm Assessment
3. Block 2 Survey
4. Final Course Assessment

Course Outline

01/04/2021 - 04/23/2021

Modules	Dates	Modules	Assignments
Module 1-5	01/04 - 03/12	1. Intro to Team Science 2. Growth Plans 3. Fundamentals of TeamSTEPPS 4. NIH Biosketch 5. Complex Collaboration	Packet 1: Personality Assessment, IDP, MMP, Biosketch and CV
	03/13 - 03/21	Spring Break	
Module 6-9	03/22 - 04/23	6. Building a Team 7. Connecting in the New Normal 8. Team Dynamics 9. Patient-Centered/Community Teams 10. Innovating in Team Science	Packet 2: Research Elevator Pitch, OrchidID and Commons, Biosketch Feedback, Team Assembly

Module Learning Outcomes

1. Intro to Team Science
 - a. Define Team Science
 - b. Explain the significance of Team Science
 - c. Identify the need for scientific teams for studies of complex social problems with multiple causes
2. Growth Plans
 - a. Recognize the importance of development plans at different stages of career development
 - b. Develop an Individual Development Plan (IDP) for career growth
 - c. Develop a Mentor-Mentee Plan
3. Fundamentals of TeamSTEPPS
 - a. Describe the TeamSTEPPS framework and five key principles
 - b. Apply TeamSTEPPS tools and strategies
 - c. Assess your competency in TeamSTEPPS principles.
4. NIH Biosketch and NIH Scored Review Criteria
 - a. Summarize the importance of team science in applying for NIH grants
 - b. Discuss how a collaborative agreement can help in determining how authorship and other forms of credit will be decided
 - c. Develop a personal Biosketch
5. Complex Collaboration
 - a. Describe how complex problems lend themselves to complex collaboration
 - b. Learn how to have challenging conversations without conflict
 - c. Explain how to create a team that celebrates sharing recognition and credit
6. Building a Team
 - a. Compare siloed researchers focusing on a solution to a collaborative community approaching multiple strategies to making change
 - b. Describe how to manage differences and embrace diversity of a team

- c. Describe how to build interdependence on a team
- 7. Connecting in the New Normal
 - a. List online tools to find team members and market yourself to potential teams
 - b. Explain effective communication over the phone, internet, and in person with professionals known and unknown
 - c. Demonstrate comfort communicating research interest to others
- 8. Team Dynamics
 - a. Identify toxic behaviors to team dynamics
 - b. Select specific professionals according to their unique characteristics and research interests to take part on a team
 - c. Describe the importance of an interprofessional team to achieving scientific breakthrough
- 9. Patient-Centered/Community Teams
 - a. Describe the significance of including patients and communities on scientific teams
 - b. Investigate pressures and expectations inherent within the scientific and academic realm
 - c. Articulate how clinical and research interests can become transformed into community work
- 10. Innovating in Team Science
 - a. Describe how we will move past interdisciplinary and transdisciplinary work
 - b. Define innovation for Team Science
 - c. See examples of innovation in Team Science