

Faculty Resource Guide





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Project Firstline is a national collaborative led by the U.S. Centers for Disease Control and Prevention (CDC) to provide infection control training and education to frontline healthcare workers and public health personnel. The League for Innovation in the Community College is proud to partner with Project Firstline, as supported through Cooperative Agreement CDC-RFA-CK20-2003. CDC is an agency within the Department of Health and Human Services (HHS). The contents of this document do not necessarily represent the policies of CDC or HHS and should not be considered an endorsement by the Federal Government.

Project Firstline Overview

The COVID-19 pandemic underscored gaps in infection control knowledge and practice in healthcare settings nationwide. The U.S. Centers for Disease Control and Prevention (CDC) has partnered with the American Hospital Association (AHA) and the League for Innovation in the Community College (League) to launch a new initiative to integrate enhanced infection control content into community college classrooms, with the goal of helping healthcare workers start their careers with the infection control knowledge and realities of practice they need to keep themselves and their patients safe.





The partnership is a part of Project Firstline (www.cdc.gov/infectioncontrol/projectfirstline), CDC's innovative infection control training collaborative, and is designed to integrate essential infection control training and practice into community colleges' nursing and allied health curricula. Leaders, faculty, and practitioners across healthcare and community college education have worked together to enhance infection control curricula using Project Firstline training resources and real-world experience from hospitals and health system teams.

The Project Firstline Community College Collaborative began in summer 2021. CDC, AHA, and the League worked with participating colleges to establish faculty teams in emergency medical services, nursing, practical nursing, nursing assistants, medical assisting, and respiratory therapy. Each faculty team closely examined and further strengthened their own program's curricular approach to teaching infection control content to students.

The aim of this faculty resource guide is to provide you and your faculty colleagues with a step-by-step approach to considering where and how infection control is currently being taught, and where additional infection control teaching resources or experiences could potentially be integrated. The four steps described in this guide, along with the tools accompanying them, may help you in identifying and elevating additional opportunities to expose students to infection control teaching and learning. This resource may be valuable in program retreats, as a tool to review individual courses or course activities, or in any other way that makes sense for your program.

www.cdc.gov/infectioncontrol/projectfirstline

STEP 1

Develop a list of the overarching infection control themes you wish to examine across your curriculum. Some sample cross-cutting themes in infection control have been provided on pages 7-8. This step invites you to consider big-picture ideas related to the way you approach infection control teaching and learning. These will serve as overarching topics to consider while assessing and enhancing your curriculum at a more granular level.

STEP 2

Develop a list of specific infection control learning objectives or learning outcomes you wish to examine across your curriculum. The Curriculum Map (Appendix A) provides an example of the types of learning objectives you might want to consider. You may start with this list or build your own. On the left side of the grid, the sample infection control learning objectives and sub-objectives are listed. In the blank cells across the top of the grid, you can insert your course titles/numbers. Next to each learning sub-objective, list the weeks when the learning objective is introduced and/or reinforced.

STEP 3

After you have completed your curriculum maps, consider how each learning objective is delivered in the classroom by using the Curriculum Snapshot (Appendix B) template. Consider the following:

- Does your current curriculum explicitly address the material outlined in each learning objective?
- Does the current curriculum allow for an introduction, reinforcement, and mastery of the learning objectives?
- Are the learning objectives assessed?
- How do the learning objectives connect back to the overarching themes?

This template is intended to assist you in examining and possibly revising the scope and sequencing of each objective.

STEP 4

After completing the Curriculum Snapshots, revisit your Curriculum Map and adjust for any changes you made during the snapshot process. Because this is a work in progress, you can expect to make adjustments to the instructional cadence, including where best to introduce, expand, apply, and assess each learning objective.



Resource Guide Components

- **Infection Control Themes** (pages 7-8) are the overarching topics to consider while assessing and enhancing your curriculum. These can be woven throughout your program curriculum and the templates in this guide are designed for that purpose. The infection control learning objectives should connect to these themes.
- The **Curriculum Map** (Appendix A) encompasses course objectives and identifies where objectives are addressed within your courses and program.
- The **Curriculum Snapshot** (Appendix B) indicates where the objectives are addressed in a specific course and how learning is delivered and assessed.
- The **Examples and Artifacts** (Appendix C) are based on items submitted by community college faculty who participated in the Project Firstline Community College Collaborative. Artifacts are examples of how learning objectives can be integrated into the curriculum.
- **Project Firstline Resources** (Appendix C) are freely available for use in enhancing infection control curriculum.

Scaffolding Content

The infection control learning objectives are not intended to be taught in a single course within a program curriculum. As you and your colleagues enhance your curriculum, you will determine the appropriate placement of content across courses within your program. Scaffolding content throughout a program helps ensure that enhancements are introduced, expanded, applied, and assessed, thus reinforcing learning as students progress from course to course and learn over time.



Consider the following questions as you think about enhancing your curriculum:

- What infection control elements have worked well in the clinical setting for you and your students?
- What challenges have you experienced when delivering infection control content and how can these be addressed?
- What additional topics or questions in infection control did the COVID-19 pandemic elevate?
- What gaps in infection control content have you identified in your current curriculum?
- In what way does this learning objective or topic fit within your curriculum?
- What are some strengths of your program's approach to teaching infection control?
- What, if any, changes might you make to the curriculum? Why?
- How do you engage students in critical thinking as it pertains to infection control objectives?
- How do you provide practice opportunities in healthcare sites related to infection control?





Tips for Implementation

- Keep what's working in your current curriculum.
- Approach the templates as documents open for revision as information updates occur.
- The way you teach infection control and develop learning objectives should be tailored to your discipline and program.
- The sample learning objectives are for illustration only. Design your own learning objectives!
- Implement over time. It may be best not to try to implement all objectives within one course/semester/unit.
- Reach out to colleagues at other colleges to share assessment tools and ideas.
- Utilize CDC resources.
- Remember that there are multiple ways to integrate infection control within your curriculum.

Sample Infection Control Themes



Consider the overarching themes that are central to the way your program approaches infection control teaching and learning. A few examples of potential cross-cutting themes have been provided below. Consider adapting these or designing your own, with the aim of weaving these concepts throughout your program curriculum. The sample infection control learning objectives (see Curriculum Map) stem from the infection control themes.



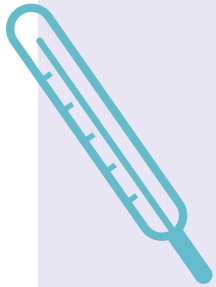
Pathogen Reservoirs

- >> Different germs are found in different places on the body and in the healthcare environment.
- >> By knowing which germs are found in which places, healthcare workers can learn to recognize how each of their work activities might lead to infections.
- >> Knowing about reservoirs can also help healthcare workers understand why we do certain things to try to keep germs from spreading.



Risk Recognition

- >> As healthcare workers complete their work, certain situations are going to have a higher risk of spreading germs and causing infection than others.
- >> Infections in healthcare are not inevitable and can be prevented. Recognizing those times where infection control is needed and taking the appropriate steps can stop germs from spreading and save lives.
- >> Infection control training aims to give healthcare workers the knowledge they need to recognize the risks of common situations they might encounter. It also helps them identify ways to reduce or eliminate that risk through infection control practices.



Understanding the “Why” of Infection Control

- >> It is important to explain not just what to do for infection control, but also why each recommended action or activity works to keep germs from spreading in healthcare.
- >> Understanding the “why” helps us apply our knowledge of the core principles of infection control to everyday challenges as well as new situations and risks on the job. It also helps us make sense of changes in infection control guidance that may occur over time.
- >> When healthcare workers understand why certain infection control measures are recommended, they can better recognize the moments of risk where those measures should be used.

Infection Control Is Everyone’s Responsibility

- >> Everyone who works in healthcare is a healthcare worker, even if they’re not directly working with patients or providing clinical care.
- >> Every healthcare worker can help prevent infections from spreading to their patients, to their colleagues, and even to their families and communities.
- >> Healthcare workers work collaboratively as a team to achieve infection control, using the expertise of each member to help determine the best approaches for stopping the spread of infections.
- >> Each member of the healthcare team also brings their own specialized knowledge about their work activities and how they may contribute to, or prevent, the spread of infection.
- >> Project Firstline aims to use infection control education and training to build cultures of infection control in our healthcare systems and facilities so that everyone feels empowered to help stop the spread of infection.



A APPENDIX A

Curriculum Map Template



Infection control is a dynamic field, and Project Firstline and its partners continue to release new resources that may be relevant to your program’s aims. Some sample learning objectives have been entered in the template below. Please keep in mind that this is not an exhaustive list, and that you can add and tailor it to fit your program’s needs. Consider bookmarking the Project Firstline website to review new resources as they become available: www.cdc.gov/infectioncontrol/projectfirstline/index.html.

YOUR PROGRAM COURSES							
<i>For each course: In the table below, specify the weeks when each topic is covered. Consider how the topic is introduced, expanded, applied, and assessed, as well as how it may tie in to your accreditation and/or licensure standards.</i>							
Infection Control Learning Objectives							
1	The Concept of Infection Control						
1.1	Understand and articulate the concept of infection control.						
2	Hand Hygiene						
2.1.a	Describe two (2) reasons why having clean hands is especially important in healthcare.						
2.1.b	Explain why hands are a main way that germs can spread in the environment.						

3	Environmental Cleaning and Disinfection						
3.1.a	Describe the difference between cleaning and disinfection.						
3.1.b	Discuss why it is important to follow the label instructions on a disinfectant product.						
4	PPE						
4.1	Defining PPE						
4.1.a	Define PPE and describe two (2) functions of PPE in healthcare.						
4.2	Eye Protection						
4.2.a	Explain the role of eye protection in infection control and why eye protection is important for infection control.						
4.3	Gloves and Gowns						
4.3.a	Explain the role of gloves in infection control.						
4.3.b	Explain the role of gowns in infection control.						
4.3.c	Discuss three (3) reasons why wearing more than one pair of gloves at once, or wearing more than one gown at once, is not recommended for routine care.						
4.4	Respirators						
4.4.a	Name three (3) types of air-purifying respirators commonly used in healthcare.						
4.4.b	Describe two (2) aspects of N95s that protect the wearer from inhaling very small particles.						
4.4.c	Explain when and how to conduct a user seal check and why it is important before using certain respirators.						
4.4.d	Discuss two (2) possible actions you can take if a leak in the N95 is detected.						

5	Hierarchy of Controls						
5.1	Ventilation						
5.1.a	Discuss why good ventilation is important for infection control in healthcare.						
5.1.b	Explain how ventilation works to reduce the amount of germs in the air.						
6	Injection Safety						
6.1	Multi-Dose Vials						
6.1.a	Explain why injection safety actions are important when using multi-dose vials.						
6.1.b	Describe at least four (4) injection safety steps to take when using a multi-dose vaccine vial.						
7	Risk Recognition						
7.1.a	Understand the concept of risk recognition in healthcare.						
7.1.b	Explain the five (5) elements needed for germs to spread and cause infection.						
7.1.c	Describe the four (4) most common pathways for germ spread in healthcare.						
7.1.d	Describe foundational strategies for minimizing the spread of germs.						
8	Germ Reservoirs						
8.1.a	Describe four (4) body reservoirs where germs live that are important for infection control in healthcare.						
8.1.b	Describe four (4) environmental reservoirs where germs live that are important for infection control in healthcare.						

B APPENDIX B

Curriculum Snapshot Template

Curriculum Review Snapshot

Program:

Infection Control Theme:

Learning Objective:

Existing coverage of this learning objective	Responses
Where does this learning objective appear in your existing program learning objectives?	Please list course(s) where this topic is found:
What instructional methods and learning tools are used to teach this learning objective?	<input type="checkbox"/> Didactic/lecture <input type="checkbox"/> Onsite skills lab <input type="checkbox"/> Offsite practicum in healthcare facility or pre-acute setting <input type="checkbox"/> Other (please specify):
How is this learning objective assessed?	<input type="checkbox"/> Course assignments <input type="checkbox"/> Course exam <input type="checkbox"/> Certification/licensure exam <input type="checkbox"/> Skills lab <input type="checkbox"/> Offsite practicum <input type="checkbox"/> Other (please specify):

Enhancing curricular opportunities to address this learning objective	
What courses would you like to target for augmenting, changing, or adding to this topic? Questions to consider as you select courses: <ul style="list-style-type: none"> > How could you further scaffold (progress) this learning objective across the curriculum? Keep in mind, we aim to integrate infection control learning and practice, not displace other important content. > How could you link to credentialing expectations, workplace competencies, and experiential learning? 	Please list course(s) here:
Please list the course artifacts you wish to prioritize for further enhancement (e.g., learning activity, assignment/assessment, practicum resources). Questions to consider as you select courses: <ul style="list-style-type: none"> > How does this learning objective connect back to your program's overarching infection control themes? > How could you integrate Project Firstline resources? (https://www.cdc.gov/infectioncontrol/projectfirstline/index.html) 	Please describe here:

C

APPENDIX C

For examples, artifacts, and other resources, see Appendix C at <https://www.league.org/node/1430374>



