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# TEACHING TIPS AND TOOLS

## TEACHING PROJECT MANAGEMENT IN HEALTH ADMINISTRATION: TIPS FOR NAVIGATING THE VAST PROJECT MANAGEMENT UNIVERSE AND TRANSLATING CONCEPTS TO THE HEALTH ADMINISTRATION ENVIRONMENT

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### ABSTRACT

The modern healthcare environment presents the health administrator with complex problems and opportunities to improve health services delivery and quality that require time-consuming and resource-intensive solutions. The discipline of project management can facilitate the successful implementation of complex solutions in an efficient, timely, and satisfying manner. However, the profession of project management originally developed from the disciplines of engineering and information technology. Thus, many important project management concepts and terms can be difficult to translate for students in health services administration, making teaching these concepts challenging. This article describes the process of developing a required project management course for both undergraduate and graduate students. Specific attention is given to aspects of project management that are somewhat difficult to translate to the health services environment, such as a deliverable-based work breakdown structure. Tips, tools, and techniques developed to facilitate the application of these important concepts to health services project management are presented.

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## INTRODUCTION

The complexity of the modern healthcare environment has given rise to the need for efficient and efficacious solutions to emerging challenges such as rising healthcare costs, value-based payment, technological advances, and the need to incorporate evidence-based practice into routine healthcare operations (Lavoie-Tremblay et al., 2017; Schwalbe, 2017). Project management is a term commonly used but not commonly understood. In the vernacular, project management often refers to an amorphous and generic set of activities and processes. However, at its core, project management involves a set of specific skills, tools, and techniques that can be used to maximize the probability of getting a good idea to work. More specifically, a project is “a temporary endeavor undertaken to create a unique product, service, or result” (Dwyer et al., 2019). Thus, project management has a specific methodology that can be taught, and various certifications are available to demonstrate sound acquisition of this acquired knowledge. Furthermore, demand is growing among health administration students for this knowledge as evidenced by one recent Master of Health Administration (MHA) alumni survey, which indicated demand for learning more about project management principles and processes (Khalil & Liu, 2021).

Although project management can be taught, the history of project management, paradoxically, is rooted in disciplines distal to administration, in general, and health services administration, in specific. Historically, project management primarily involved engineering and construction projects, ranging from the great pyramids of Gaza and Stonehenge in ancient times to the Hoover Dam and English Channel in modern times (Seymour & Hussein, 2014). Thus, teaching project management in health services administration is fraught with difficulties rooted in translating unfamiliar terms and techniques into a manner understandable to the health services administration student. This manuscript discusses tips and techniques for overcoming these challenges by presenting the creation and incorporation of project management courses into the undergraduate and graduate health administration curriculum.

## COURSE DESIGN (TECHNIQUE)

### *Description*

A project management course is offered at both the undergraduate (Bachelor of Science in Health Services Management and Leadership) and graduate (Master of Health Administration) level by the School of Public Health at West Virginia University. The undergraduate course was first taught during the spring 2019 semester and is offered twice a year during the fall and spring semesters. The

graduate course was first taught during the spring 2021 semester and is offered once a year during the spring semester. On average, the undergraduate course has a class enrollment of 21 students, and the graduate course has an enrollment of 17 students (seven in-person and 10 online). The undergraduate course is open to students at any academic rank. The graduate course is also open to Master of Public Health students, pharmacists completing a postgraduate residency in Health-System Pharmacy Administration & Leadership, and other graduate students with permission. Class sizes continue to increase as we expand our undergraduate and graduate programs. In the undergraduate class alone, only 16 students were enrolled in the entire first year. Since then, enrollment each semester has never dropped below 20 students and only dropped below 25 students once.

### *Approach*

Both courses were created using backward design. Under this curricular design model, primary learning outcomes are established, followed by main assessments tied to each learning outcome. Individual teaching modules are then planned around these learning outcomes and assessments (Daugherty, 2006; White & Maguire, 2021). This approach assists students with focusing on the most important aspects of course content, which is particularly important in teaching project management given the vast amount of subject matter. Backward course design also promotes the teaching of real-world applications of the subject matter, which was a key approach planned a priori in developing these courses. Table 1 shows the main learning objectives for both courses and illustrates how assessments and corresponding lectures were planned for each learning objective as guided by the backward design framework.

**Table 1:** Main Learning Objectives by Course Level and Associated Assessment Methods and Lectures as Guided by Backward Course Design\*

Undergraduate Course	Graduate Course
<p>1. Develop resource, communication, and implementation plans for a project.</p> <ul style="list-style-type: none"> <li>• Assessment Methods: Team Project, Written Proposal</li> <li>• Lectures(s): Planning Phase: Timing and Resource Estimates (Budget Planning 1, 2, 3)/Project Risks, Issue Management, Communication Plan</li> </ul>	<p>1. Defend the use of project management tools and techniques in health administration.</p> <ul style="list-style-type: none"> <li>• Assessment Methods: Discussion Questions: 1, 2 (page 48)</li> <li>• Lecture(s): Week 1</li> </ul>

Table 1, *cont.*

2. Create a Gantt chart.	2. Differentiate between triple, quadruple, and six-pointed star project constraints.
<ul style="list-style-type: none"><li>• Assessment Methods: Team Project, Gantt Charts</li><li>• Lecture(s): Project Management Tools</li></ul>	<ul style="list-style-type: none"><li>• Assessment Methods: Discussion Questions: 3 (page 48)</li><li>• Lecture(s): Week 1</li></ul>
3. Plan a budget with justification.	3. Differentiate between project, programs, and portfolios.
<ul style="list-style-type: none"><li>• Assessment Methods: Team Project, Written Proposal; Excel Budgeting Assignment</li><li>• Lecture(s): Planning Phase: Timing and Resource Estimates (Budget Planning 1, 2, 3)</li></ul>	<ul style="list-style-type: none"><li>• Assessment Methods: Discussion Questions: 6 (page 48); Team Exercise 1 (Project Identification)</li><li>• Lecture(s): Weeks 1 and 3</li></ul>
4. Identify key stakeholders and their roles in a project.	4. Relate the main project management knowledge areas to project management process groups and the most frequently used tools and techniques (i.e., "super tools").
<ul style="list-style-type: none"><li>• Assessment Methods: Team Project, Written Proposal</li><li>• Lectures(s): Planning Phase: Deliverables, Stakeholders, Organizational Structures</li></ul>	<ul style="list-style-type: none"><li>• Assessment Methods: Discussion Questions: 10 (page 48), 1 (page 143)</li><li>• Lecture(s): Weeks 1 and 4</li></ul>
5. Apply group dynamics to a project team.	5. Compare different approaches to selecting projects in health organizations.
<ul style="list-style-type: none"><li>• Assessment Methods: Team Project, Written Proposal and Presentation; Team Peer Evaluations</li><li>• Lecture(s): Group Work Sessions</li></ul>	<ul style="list-style-type: none"><li>• Assessment Methods: Exercise 1 (Financial Tools for Project Selection); Team Exercise 2 (Project Selection)</li><li>• Lecture(s): Week 3</li></ul>
	6. Apply project management super tools to hypothetical projects.
	<ul style="list-style-type: none"><li>• Assessment Methods: Team Exercises 3 (Project Charter), 4 (Scope and Schedule)</li><li>• Lecture(s): Weeks 4–8</li></ul>
	7. Critique different project human resource management motivation and leadership styles considering the pros and cons of each style.
	<ul style="list-style-type: none"><li>• Assessment Methods: Discussion Questions: 3, 4, 5 (page 287), 3 (page 349)</li><li>• Lecture(s): Weeks 11–13</li></ul>

Table 1, *cont.*

	<p>8. Apply the critical path method (CPM) technique to a given set of project tasks to determine a project's critical path.</p> <ul style="list-style-type: none"> <li>• Assessment Methods: Exercise 2 (CPM Assignment)</li> <li>• Lecture(s): Week 8</li> </ul>
	<p>9. Demonstrate the use of earned value management to monitor project progress.</p> <ul style="list-style-type: none"> <li>• Assessment Methods: Team Exercise 5 (Cost Baseline); Exercise 3 (Earned Value Management)</li> <li>• Lecture(s): Weeks 9, 14</li> </ul>
	<p>10. Discuss the importance of the lesson learned register to the closeout phase of project management.</p> <ul style="list-style-type: none"> <li>• Assessment Methods: Exercise 4 (Lessons Learned Report)</li> <li>• Lecture(s): Week 15</li> </ul>

**Notes:** \* In backward course design, learning objectives are first established, followed by assessment methods for each objective. As a final step, individual lectures or weekly modules are developed that map to the assessment methods and learning objectives.

## KEY CHALLENGES (WITH TIPS FOR OVERCOMING)

### *Challenge #1: A Vast Body of Knowledge*

The primary difficulty with teaching project management regardless of the particular disciplinary focus is the vast size of the project management body of knowledge. The Project Management Body of Knowledge (PMBOK®), sixth edition, is 756 pages and describes up to 49 processes allocated among five main process groups and 10 main knowledge areas (Figure 1) that a project manager can use to facilitate successful projects (Project Management Institute, 2017). More recently, a briefer, updated version of the PMBOK® was published that calls for a focus on principles and outcomes versus processes and outputs (Project Management Institute, 2021a). However, the historic processes and outputs approach was not superseded by the updated guide and the entry-level certification is still heavily based on the process group model (Project Management Institute, 2021b). Therefore, the class was designed around the traditional process group model. Furthermore, an understanding of this model

can facilitate the conceptualization of more recent and emergent hybrid and agile models.

**Figure 1:** Project Management Process Group and Knowledge Area Mapping

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work 4.4 Manage Project Knowledge	4.5 Monitor and Control Project Work 4.6 Perform Integrated Change Control	4.7 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Schedule Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Durations 6.5 Develop Schedule		6.6 Control Schedule	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
8. Project Quality Management		8.1 Plan Quality Management	8.2 Manage Quality	8.3 Control Quality	
9. Project Resource Management		9.1 Plan Resource Management 9.2 Estimate Activity Resources	9.3 Acquire Resources 9.4 Develop Team 9.5 Manage Team	9.6 Control Resources	
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Monitor Communications	
11. Project Risk Management		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses	11.6 Implement Risk Responses	11.7 Monitor Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Engagement	13.3 Manage Stakeholder Engagement	13.4 Monitor Stakeholder Engagement	

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*Tip #1: The Universe Metaphor*

To facilitate an understanding of the vast process group model, the body of knowledge was conceptualized as a “universe,” and each process group was conceptualized as a “world” to be visited briefly throughout the semester. To this end, *A Hitchhikers Guide to the Project Management Universe*, loosely based on the *Hitchhikers Guide to the Galaxy* series of novels, was created for students (Adams, 1980). This approach served to assist the student in navigating the 49 processes and not losing sight of the overall goal of project management: to get a good idea to work (Dwyer et al., 2019). For example, as part of this framework, the “world” of the planning process group was conceptualized as the “Jupiter” of the project management universe, given that it contains more individual processes than any other process group or “world” (Figure 1). In contrast to the graduate course, the undergraduate course focused on four generic phases of the project lifecycle from Initiation to Close Out. Students in both classes are warned about the “semantic nightmares” that can exist throughout the project management universe. For example, the terms “project” and “program” are often used interchangeably in the vernacular but have technically different meanings in the project management universe. Similarly, the relationship between phases and process groups is difficult to grasp given that it is technically possible for some processes to occur in all project phases. For example, monitoring and control processes can occur early in the project lifecycle simultaneously with initiation processes.

*Challenge #2: An Amorphous Body of Knowledge*

A key challenge to teaching project management in any program is related to the fact that a project can literally be any good idea. Thus, the PMBOK® remains necessarily vague in many descriptions of tools, techniques, and approaches given that projects can be implemented in a wide range of industries and settings. Thus, it can be quite challenging to translate these important principles to the health administration realm.

*Tip #2: Translating Worlds*

To facilitate translation of the body of knowledge, project management textbooks applicable to the health services and healthcare environment were selected for the courses. The undergraduate text was more generally focused on public health project management (Dwyer et al., 2019), whereas the graduate text was more specific to health administration (Schwalbe & Furlong, 2017). In the undergraduate course, students were given the option of signing up to work on real-world public health problems (Table 2) in a team that embraces the

problem-based learning approach. In the graduate course, students worked in groups to generate project ideas, and then selected a project to work on after using advanced project selection tools such as the weighted scoring method. Team sizes were between three and five students in both courses. Some of the projects selected in the graduate course were related to projects being considered in students' places of employment. This emphasis on applying project management skills to a real-world project in groups has been used successfully and embraces the importance of group dynamics, which is central to successful project management (Falcao & Fernandes, 2016).

**Table 2:** Project Scenarios for Undergraduate Team Projects

Community Health Needs Assessment
Your group has been constituted by the Department of Health and Human Resources Bureau for Public Health and specifically charged with conducting a community health needs assessment using the Centers for Disease Control and Prevention Community Health Assessment and Group Evaluation (CHANGE) tool. However, before the Commissioner of Public Health will sign off on the project, she has requested a project proposal complete with goals, objectives, timeline, and budget.
Harm Reduction Program
Needle exchange programs, which provide new needles in exchange for used needles that are potentially infected with infectious disease, are one potential mechanism for preventing the spread of infectious diseases. These programs also offer linkage to substance abuse treatment for people who inject drugs who are ready to quit using. Your group has been asked by the Clay County Health Department Board of Directors to research and propose a plan for starting a needle exchange program.
Diabetes Prevention and Management
The Appalachian region of the United States has a disproportionately higher prevalence of diabetes compared to other areas of the country. In 2011, the CDC labeled a 644-county area of the United States as the "diabetes belt." More than 33% of the "diabetes belt" counties were in central and southern Appalachia. A local interfaith Council of Churches is interested in implementing the evidence-based diabetes prevention program (DPP) lifestyle intervention to address a growing problem of type II diabetes among parishioners in the community. Your group is tasked with preparing a proposal to implement this plan.

Table 2, *cont.*

Intervention to Prevent Adolescent Substance Use
Public health recognizes and embraces the ecological perspective that recognizes multiple influences on human behavior. To this end, researchers in Iceland and at the local university have developed a successful evidence-based model for preventing adolescent substance abuse. This model is called the “Icelandic Model” to reflect its development and successful demonstration in Iceland. The Harrison County Commission is interested in implementing this model to curb an increasing problematic trend with substance abuse in county schools. Your team has been tasked with proposing a project plan that successfully implements the first two steps of this model (school-based surveys and community feedback in preparation for a community intervention) in Harrison County. The County Commission is particularly interested in the overall cost and projected timeframe for successfully implementing this model.
Intimate Partner Violence
The Centers for Disease Control and Prevention (CDC) states that intimate partner violence (IPV) is abuse, which can be physical, sexual, or psychological harm, that occurs between two people in a close relationship. The term “intimate partner” includes current and former spouses and dating partners. IPV exists along a continuum from a single episode of violence to ongoing battering. Major medical bodies, including the American Academy of Family Physicians, the American Medical Association, and the American College of Obstetricians and Gynecologists, recommend routine screening for IPV. IPV screening may potentially identify and link at risk partners to care. Therefore, your team is tasked with creating a proposal that adds intimate partner violence screening to the routine clinic practices in the Cabin Creek Health Center.
Peer Recovery Coaches
Peer recovery coaches (PRCs) are one strategy that has been implemented to address the overdose crisis, in specific, and substance use disorders, in general. PRCs are individuals with lived experience who are currently in long-term recovery. Use of peer delivered recovery support services has been associated with a range of positive outcomes, from reductions in substance misuse to increased mental health outcomes and linkage to housing and health-care resources. Your community has not been spared from the opioid epidemic that has ravaged Central Appalachia in the last few years and has recently observed a rise in the use of methamphetamines. As a result, city council is soliciting proposals of projects that seek to address the ongoing opioid epidemic and the emerging methamphetamines problem. Your group has been tasked with submitting a proposal that creates a team of peer recovery coaches to be placed in selected community locations such as emergency departments and community missions to directly engage with individuals suffering from substance abuse and link them to valuable community resources and cessation programs (for those ready to quit).

Tuckman’s stages of group development model first introduced in 1965 and revised by Jensen in 1977 may be particularly helpful to promoting successful project teamwork (Bonebright, 2010). Briefly, this model describes sequential stages through which small groups must progress to be successful. They include: *forming* (characterized by initial group composition, task orientation, rule setting, and relationship building); *storming* (characterized by

conflict over specific team roles and task responsibilities); *norming* (characterized by a solidification of team roles and norms in preparation to complete work); *performing* (characterized by efficient group work toward a common goal); and, *adjourning* (characterized by a completion of group work and team disbanding) (Bonebright, 2010; Posthuma & Al-Riyami, 2012). Promoting awareness of this model within small student project teams has been associated with faster group formation and more efficient group functioning with production of high-quality course deliverables (Wright, 2013). Furthermore, leaders who remain aware of team lifecycles tend to have successful teams that reach established tasks and goals. For example, a leader who recognizes that her team is still in the early lifecycle stages would be most successful if she gave ample time for the solidification of group norms and roles before pressing the team to focus on performing the work (Posthuma & Al-Riyami, 2012).

Links with real-world health services projects conducted by our project management office were incorporated into the class to facilitate understanding of difficult project management concepts such as deliverables and the work breakdown structure (WBS). For example, many work breakdown structures in project management are deliverable-based. The PMBOK® defines a deliverable as “any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project,” and the WBS as “a hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables” (Project Management Institute, 2017). Although these definitions are kept purposefully broad for the aforementioned reasons, they form a concrete example of how such broadness can complicate learning. Thus, to facilitate learning, the approach our project management office takes in treating a contract objective as a deliverable or “main chunk of work” upon which the rest of the work breakdown structure is developed was given as a specific example to guide student understanding of the application of these fundamental concepts. In particular, the instructor emphasized that deliverables are often tied to specific project objectives in health services projects upon which the work breakdown structure is constructed. Furthermore, the importance of writing project objectives that are SMART (specific, measurable, achievable, relevant, time bound) was emphasized as an important feature of healthcare organization projects (MacLeod, 2012). Additionally, because funding for projects must often be sought in the form of grant applications in health services and other health settings, the SMART technique to writing objectives was included in the classes, given that many grant aims or objectives are written in SMART format.

### *Challenge #3: The Never-Ending Maze*

Closely related to the challenges associated with the vast body of project management knowledge and purposefully vague terminology is the very real danger of students feeling lost in the project management universe with the plethora of processes and associated inputs and outputs coupled with confusing terminology. In addition to presenting the processes in the context of each process group or “world” as a way of orienting students, reminding students of the fundamental purpose of project management is equally important.

### *Tip #3: Emphasizing the Final Destination*

Throughout the course, students were reminded of the overall goal of project management and the importance of not getting lost in the technical details. This approach is consistent with Locke and Latham’s Goal Setting Theory, which postulates that setting specific and challenging goals will motivate team members and contribute to higher levels of performance (Locke & Latham, 2012; Posthuma & Al-Riyami, 2012). Setting goals can also minimize conflict within teams by helping team members coalesce around achieving a common goal. To this end, it is recommended that the goals be written in the SMART format as previously discussed (Posthuma & Al-Riyami, 2012).

To prevent creating false impressions that could become resentments, I informed students interested in seeking formal project management certification that the course was not a test preparation course. Rather, the goal of both courses was to expose students to the world and associated language of project management to enable future health administrators to converse with project managers and project management offices. To this end, the plethora of processes and associated tools and techniques that a project manager can use were presented with an emphasis on the end itself versus the various means that can be used to achieve the end. This framework is consistent with the updated emphasis on underlying principles to guide behavior and outcomes within main domains versus incremental outputs and associated processes that are discussed in the PMBOK®, seventh edition (Project Management Institute, 2021a), and on research that has found that other factors such as teambuilding are more important than the use of project management tools in promoting successful projects (Pons & Haefele, 2015).

Additionally, the textbook selected for the graduate version of the course emphasized a handful of “super tools” that have been associated with successful project management (Schwalbe, 2017). Several class assignments in both the undergraduate and graduate courses exposed students to these tools, such as the project charter, the work breakdown structure, and the Gantt

chart. Students in the graduate version of the course were also introduced to advanced tools and techniques such as the critical path method and earned value management. Both courses demonstrated these tools and techniques using Microsoft Excel® worksheets. Excel was selected to both reinforce this tool, which is commonly used in health administration, and due to the free or low-cost options readily available (Herriman, 2022). Students in the undergraduate course presented their project plan at the conclusion of the semester to practice selling the idea to a potential funder. In both courses, the importance of relationships and stakeholder engagement was emphasized. The instructor referred to this importance as the “master key” to successful project management, which is the ability to lead and work well with others. In the absence of this ability, all of the other tools and techniques may not be helpful to getting a good idea to work.

#### *Challenge #4: Project Management in an Online Medium*

Due to the COVID-19 pandemic, several sections of the courses were delivered entirely online that, which created unique challenges related to maintaining student engagement/attention and group work, which is a defining feature of project management.

#### *Tip #4: Chunking Up Online Content*

To facilitate student engagement and attention, a series of short highlight videos based on course content were created and posted to our learning management system as guided by the evidence regarding effective online teaching (Falcao & Fernandes, 2016). A few classes were also dedicated to group work and the Zoom breakout room function was used to allow students to work in groups during the scheduled class time (i.e., synchronous online). This approach helped the students get past the familiar difficulty of group work in a classroom setting in which individual students have different class and work schedules. Students also presented their final project proposal via Zoom.

## EVALUATION

Overall, the courses were well received by both undergraduate and graduate students with an average rating of 4.87 (on a 5-point scale) and 5, respectively. In particular, students appreciated the real-world emphasis and approach. All students who successfully pass the courses immediately qualify to sit for the Certified Associate Project Management (CAPM) exam offered by the Project Management Institute; one undergraduate student successfully passed the CAPM exam on her first try. Selected qualitative comments from the course

emphasized the benefit of the teamwork approach and real-world applications:

“The short lectures were very helpful. The templates were also a great tool to use and could see myself using in a real-world scenario. The group projects were also great learning opportunities.”

“The team project was very helpful and easier than expected when working with a group completely online, the project really tied the entire class together well.”

“What really helped me during this course was the overall structure of the class. I believe to learn there must be a balance of overall educational context and real-life application.”

## FUTURE PLANS

Although the project management courses have been well received by students at all levels, there is a need to creatively implement strategies for maximizing group work in a post pandemic world, which now emphasizes remote work. To this end, additional templates and technologies will be investigated with student input to maximize the efficiency of group work both during and outside of dedicated class time. Also, the impact of team diversity (e.g., demographics, work experiences, skill sets, etc.) on team success warrants study, given the extant research confirming a positive association between team diversity and project success (Project Management Institute, 2020). Additionally, formally tracking the certification exam-passage rate of former students as well as the number of students securing jobs, internships, and residencies in project management is essential. Both courses will also be revised to include additional information on the agile method given that the project management profession now emphasizes the importance of this approach (Schwalbe, 2021). Finally, our degree offerings are accredited by the Council on Education for Public Health (CEPH), and we are in the process of seeking accreditation from the Commission on Accreditation of Healthcare Management Education (CAHME). Table 3 lists the CEPH and CAHME accreditation domains and competencies addressed in each course.

**Table 3:** Accreditation Domains/Competencies Addressed in Each Course\*

Undergraduate Course
<p><b>1. Domain: Role and Importance of Data in Public Health, <i>Data Usage</i>:</b> Address the basic concepts, methods, and tools of public health data collection, use, and analysis, and why evidence-based approaches are an essential part of public health practice. <b>Competency: Information Literacy:</b> Students should be able to locate, use, evaluate and synthesize public health information.</p> <p><b>2. Domain: Health Communications, Technical Writing, <i>Professional Writing</i>:</b> Address the basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology. <b>Competency: Public Health Communication, Oral Communication, Written Communication, Communicate with Diverse Audiences:</b> Students should be able to communicate public health information, in both oral and written forms and through a variety of media, to diverse audiences.</p> <p><b>3. Domain: Project Implementation, Introduction to Planning Concepts and Features, Introduction to Assessment Concepts and Features, and Introduction to Evaluation Concepts and Features:</b> Address the fundamental concepts and features of project implementation, including planning, assessment, and evaluation.</p>
Graduate Course
<p><b>1. Domain: Business &amp; Analytic Skills, <i>Planning and Managing Projects</i>:</b> Design, plan, implement, and assess projects, including developing appropriate timelines related to performance, structure, and outcomes.</p> <p><b>2. Domain: Communication &amp; Relationship Management, Writing Skills:</b> Prepare effective business communications.</p> <p><b>3. Domain: Leadership Skills, <i>Systems Thinking</i>:</b> Assess the potential impacts and consequences of decisions in a broad variety of situations.</p>

**Notes:** \* The undergraduate program domains and competencies are based on Council on Education for Public Health (CEPH) accreditation criteria. The graduate program domains are based on Commission on Accreditation of Healthcare Management Education (CAHME) criteria. Both courses are requirements for CEPH accredited degree programs, which are in the process of seeking CAHME accreditation.

## CONCLUSIONS

Project management is a very valuable skill set that future health administrators can use to effectively overcome challenges in the healthcare arena stemming from rising costs, shrinking reimbursements, technological advances, and evolving patient preferences and needs. Many health systems have established project management offices to implement evidence-based practices and other quality measures (Lavoie-Tremblay et al., 2017). Thus, effectively interacting and conversing with project management professionals are valuable proficiencies for a health administrator to possess. Health administration educators can ef-

fectively teach this skill by providing a structure to the vast project management body of knowledge, focusing on real-world health applications and the end goal, and emphasizing group dynamics and the importance of relationships.

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