

A Combined Project Management and Operations Management Course

Integrating the Two Disciplines to Better Teach Officers and Officer Candidates

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Abstract

Military officers must be skilled managers of the day-to-day operations they lead. Officers will also lead projects as part of their military duties. Although project management and operations management are separate business/management disciplines, we propose integrating the two areas. Traditionally, project managers are concerned with delivering a unique solution on schedule, within budget, and within quality and performance specifications. Operations managers concern themselves with effectively and efficiently converting inputs into products or services that meet quality and performance specifications to deliver to customers continually. We argue that discussing these disciplines in isolation is a disservice.

Both project management (PM) and operations management (OM) knowledge and skills are highly desired by the U.S. Air Force and the U.S. Space Force. As part of the graduation requirements for the U.S. Air Force Academy (USAFA) management majors, students must take either an introductory PM course or an OM course. Requiring officer candidates to take both courses is considered excessively difficult given all their other academic and military requirements, despite recognizing that exposure to both disciplines is optimal. To this end, the management department at USAFA directed a search for a course that would expose learners to both disciplines. A literature review revealed little that combines OM and other management disciplines (Pal & Busing, 2008) and even less that combines PM and OM. Many OM textbooks have a chapter on PM, but most PM textbooks do not address OM at all (Maylor et al., 2008).

Since nothing was readily available to develop a combined course, we needed to conduct further research in the management body of knowledge. In addition, we needed to generate new constructs and create a combined course in-house.

In researching the course construct, we found literature stressing the importance of integrating both knowledge areas. For example, Maylor et al. (2018) decried the absence of integration but did not address how to integrate them. We found no literature that addresses how to integrate the knowledge areas, so we created our own construct (see Table). We chose appropriate PM and OM topics and generated integration points (connection column in Table). We designed a course describing the benefit and efficacy of integrating both topics.

Military Need for PM and OM Knowledge

Ongoing military modernization requires soldiers to constantly change tactics, techniques, and procedures to optimize combat effectiveness (Topolski et al., 2010). Knowledge of OM is essential for leaders to make these changes successfully. Leaders with knowledge of OM processes and tools can more easily integrate the new capabilities for effective and efficient military operations.

Numerous military officers become maintenance officers (maintenance operations managers) every year. The military's aging fleets require increased attention, and operational units still demand high availability. To match scarce resources with increased demand, these officers must be well-versed in operations topics like continuous process improvement and operations scheduling techniques. Additive manufacturing (or 3D printing) may help with the availability of rare spare parts, but the officer leading the project to incorporate this new method for meeting requirements would benefit from PM knowledge.

When warfighters identify a new requirement in military operations, the military requires officers with PM knowledge to successfully execute a project to meet the new requirement. Whether operators need a new weapon system or simply a change in their operations, PM knowledge, processes, and tools are vital to delivering a unique solution on schedule and within budget that meets quality and performance specifications. As shown in the Table, when the operations side identifies a continuous process improvement project or a product development project, personnel must know the basics of program management to develop that solution.

Every year, numerous military officers become acquisition professionals. They often become project managers who must lead their organization with ever-increasing requirements and constrained resources while committing to a timeline. The officers must thoroughly understand project management topics like proper scoping, communicating, budgeting, scheduling, executing, monitoring, and controlling. As shown in the Table, when the project management side builds and tests prototypes or preliminary units, PM personnel must know operational processes and capabil-



Table
Connections for Integration

Connections Observed in Diagram of Processes		
Origin	Connection	Insertion Point
Business Development to/from OM Planning [4]		
Business Development*	<i>Cost Benefit Analysis</i>	<i>Financial Feasibility</i>
<i>Business Development</i>	<i>Location and Plant Capacity</i>	<i>Capacity Planning</i>
PM Planning to/from OM Facilitating [3]		
Risk Mgt	Initial Risk Analysis	Scope Statement
Continuous Improvement [2]	New Project?	Project Initiation
PM Planning to/from OM Facilitating [2]		
<i>Risk Mgt</i>	<i>Ongoing Risk Analysis</i>	<i>Risk Mgt</i>
<i>PM Execution to/from OM Planning [6]</i>		
<i>Capacity Planning</i>	<i>Plant Capability</i>	<i>Conception Definition</i>
<i>Product Design</i>	<i>Design for Manufacturability</i>	<i>Concept Definition</i>
<i>Product Design</i>	<i>Design for Manufacturability</i>	<i>Analysis and Design</i>
<i>Build and Test</i>	<i>Prototype on Production Equipment</i>	<i>Process Selection</i>
<i>Build and Test</i>	<i>Run at Rate on Production Equipment</i>	<i>Capacity Planning</i>
*Italics indicates a bidirectional connection		

ities to ensure the solution meets the operational requirements. OM knowledge is critical in this situation.

Even more critical than OM or PM knowledge alone is the integration of the fundamentals of OM and PM. We envision a more significant organizational advantage with officers who understand how processes like ongoing risk analysis and design for manufacturability (to mention a few) are connected in the project and operational management effort. Leaders and project managers who understand how PM and OM are integrated and when coordination is needed between the two disciplines can better contribute to organizational success.

Literature Review

Since this research effort is a project, we followed PM processes. *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*; Project Management Institute, (2017) points out that project planning processes allow us to focus our



thoughts by creating a scope definition and scope control. We narrowed the scope to the steps needed to research the intersection of PM and OM, produced a 40-lesson course, and published the research.

The PMBOK Guide (2017) describes how the project planning process helps with discovery. Focusing on the process that breaks down the deliverables, we identified the research and thought progression needed to achieve them. Finally, we used an iterative process that allowed flexibility to refine summary tasks while meeting the completion date milestones to meet deadlines for course implementation.

The literature review was a natural consequence of the discovery phase. The initial review focused on existing PM and OM textbooks. A significant discovery was that there are no combined PM and OM textbooks; readings for the course would require at least two sources to address both topics. The review of journal articles revealed numerous authors who stressed the need for integrating OM teaching with other relevant subjects (Lovejoy, 1998; Maylor et al., 2018; Morgan et al., 2008). Sobek et al. (1998) describe how the Japanese industries achieved success by integrating product design, manufacturing processes, and other business functions. Also, textbooks such as *Operations Management in the Supply Chain* (Schroeder & Goldstein, 2021) emphasize cross-functional material and the importance of integrating decisions across business functions. Multiple additional articles allude to advantages of teaching PM and OM in a more integrated manner (Goffin, 1998, Pal & Busing, 2008). However, none of the articles offered recommendations on how to integrate the disciplines.

Project metrics should facilitate successful operations. We demonstrate the need for project managers to have PM and OM knowledge and skills with the following example. A project was “successfully” completed (i.e., met its goals), but the operation that necessitated the project experienced avoidable issues. Maylor et al. (2018) write about the disconnect between PM and OM at Terminal 5 of the London Heathrow

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Airport, which lost thousands of pieces of luggage in the opening months of service. The authors describe the PM side as “extremely successful” regarding the cost and timing of the deliverables. The problems occurred in transitioning the physical deliverables to ongoing airport terminal operations. The critical lesson learned in this instance was that the project success metrics should have included “effective start-up and sustainment of operations” (Maylor et al., 2018, p. 1276). Razak et al. (2020) discuss other failed projects due to inappropriate knowledge and coordination between PM and OM personnel. This further stresses the importance of a project manager who understands issues that may arise in the OM phase.

Organizations realize the importance of projects within their operations and know they need to take better advantage of PM knowledge and skills (Ravinder & Kollikkathara, 2017). Most undergraduate students in business are only exposed to PM education in the singular chapter of their introductory OM course (Maylor et al., 2008). Ravinder and Kollikkathara (2017) remind us that OM courses often need to pay more attention to the human skills required to be a successful project manager. Nixon et al. (2012) write explicitly about how the shortcomings in PM education impact employees’ skills and knowledge. Schilling and Hill (1998) stress the importance of organizations’ effectiveness in product development projects and the efficacy of the operations designed to deliver the product to the customer. Finally, Maylor et al. (2008) describe how the volume of operations work, accomplished as a project deliverable, is significant and continuously growing; OM personnel must know how to plan, execute, evaluate, and complete these projects for maximum benefit to the operation and the organization.

Approach

Construct for Connections and Integration

To create an integrated PM and OM course, we had to develop a construct that clarified the connections between the two disciplines. We found literature regarding integrating the disciplines based on learning outcomes (Borrego & Newswander, 2010; Mathews & Jones, 2008; Svanström et al., 2008). We also found literature that elaborated on the efficacy of integrating a marketing course with a course in operations management by coordinating learning objectives, sequence of topics covered, and project assignments (Darian & Coopersmith, 2001; Pal & Busing, 2008).

We wanted to go beyond just sequencing the material. To that end, we connected the two disciplines and identified the critical relationships by more closely examining the integrated processes. We started with the diagrams of the Pocket PM Project Planning and Project Execution processes (Dudley, 2005). We then created an OM construct that combined most of the topics in the introduction to OM textbooks.



By organizing the OM topics into OM planning, OM execution, and OM facilitating processes, we were able to visualize natural coordinating points or intersections between the two disciplines, and we were able to find logical input-output relationships between them. The key that allowed us to start integrating the disciplines was identifying the greatest density of connections.

The connectivity between OM and PM processes is more evident when the project deliverables include establishing an ongoing operation. For example, projects leading to establishing a manufacturing line or opening a store, restaurant, or other ongoing operation have closer connections between the PM and OM processes. A military example would be the establishment of a new allied training squadron to support the sale of a new weapon system overseas. The stand-alone project that creates a one-of-a-kind deliverable is less critically intertwined with OM.

As previously stated, the key to beginning the integration of the disciplines was identifying where the greatest density of connections occurred. We reviewed the interconnections by inspecting the two sets of processes. As a result, we found connections to OM—beginning with business development and continuing in the PM planning phase—and ending with a greater density of interconnectivity in the PM execution phase (see Table).

We noted that the active interactions between the OM processes and business development are completed before the start of the project. This insight further emphasized that the greatest connectivity density between PM and OM is in interactions between the OM planning phase and the PM execution phase. It became apparent that PM execution is the primary input to OM planning. Sheremata (2000) alludes to this conclusion in his writing about problem-solving cycles in project development that entailed introducing cross-functional knowledge from other teams, including OM.

When examining projects that lead to ongoing operations, we sometimes found that the profit derived from the manufactured goods, or the ongoing operations far exceeded the project's cost. In these situations, the need for the project's success is more important than the project's cost may initially indicate. In reviewing the literature, we often observed the importance of the success of the product launched at the end of the project (Maylor et al., 2018). This observation contributed to the realization that the triad of cost, quality, and timing may not be the main criteria for success and that product/operation success must be considered. Morris (2013) concludes that the value of a project's true worth may be based on its ability to deliver results at the start of ongoing operations.

Course Design

The outcome of our research was to create an integrated PM and OM course at USAFA, which we describe below. We focus on the premise that everything we do for a military organization should provide an improved good or service already of-



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ferred or plan and execute a new good or service to improve the mission. In the course we developed for our officer candidates, we emphasize the need to learn various concepts, processes, and tools to enhance the organization's projects and operations functions in a combined and integrated manner. The course offers opportunities for application and assessment through exercises, activities, exams, case studies, and a final project. After completing this course, no matter what job and organization an officer candidate receives, they will be able to analyze how the organization works and how to improve it. The challenge to the soon-to-be graduates is to use the concepts learned in this course during their military careers. Exposing students to both disciplines, especially in an integrated framework, enhances the probability of application of the skills and knowledge acquired in the course regardless of the officer's career field.

The purpose of the course vision is to develop future leaders who understand the benefits and application of OM and PM principles and use them in an integrated manner to improve their organization's processes. We achieve this by imparting an understanding of how OM and PM are integrated through their commonalities through the study of planning, process, quality, and analytical methods, all using real-world examples.

The course goals are described below:

1. Understand the planning and process side of operations and project management. Develop critical thinking skills necessary to analyze complex systems. Develop strategies for continuous improvement to achieve organizational goals.
2. Understand the quality side of operations and project management. Identify factors and root causes for problems and risks. Develop and recommend potential improvements.
3. Understand the analytical side of operations and project management. Develop methods of reliably assessing current operations. Verify improvements of process changes.
4. Participate in a workgroup scenario as a productive team member.

For the sequence of material, we choose to introduce topics as closely as possible to our framework connecting PM and OM topics that helped us create the Table. For the course's first lesson, we discuss the unique nature of an integrated PM and OM course. We introduce the officer candidates to the connections observed in the Connections for Integration Table (see Table). In the beginning block of the course, we include fundamental project planning and execution topics and choose to dedicate the first quarter of the course to teaching and assessing essential PM topics (see Appendix).

We split the remaining three-quarters of the course into the following three blocks: (1) operations planning, (2) operations execution, and (3) operations facilitating processes. We find it optimal to organize the topics of any introductory OM text into these three blocks. In these blocks, we often revisit the interconnectivity between PM and



OM that we identified when we integrated the processes (see Table). We highlight to the students every connection between the two disciplines (see Appendix).

Bradbeer and Porter (2017) discuss the importance of multimedia techniques in military education. We generate the officer candidates' critical thinking with multiple lessons and various media throughout the course. The students prepare a preliminary project planning document for adding new equipment to a small manufacturing organization in the PM block. We use an operations simulation exercise in the OM blocks to reinforce the digital text material. We challenge officer candidates to balance manufacturing contracts (demand) with the appropriate processes and throughputs (supply). We agree with Meinhart (2018) that we experience better student/instructor interactions when the students "take responsible ownership for their learning" (p. 83). The operations simulation exercise is ideal for this. In the competitive simulation, students make decisions for a clothing manufacturing business. Students willingly seek feedback from instructors to maximize their profit. Finally, using four case studies, we cause the students to exercise critical and creative thinking concerning capacity planning, quality control, inventory management, and lean analysis.

The combination of digital text, projects, simulation work, and case studies provides multiple methods of instruction for the students to learn. Williams (2020) states that instructors must enable students to connect with the learning, practice what they have learned, retrieve knowledge, and receive feedback from their instructors. All these forms of active learning are essential to "enhance classroom engagement of military learners," as described by Hamilton (2019, p. 3).

Lastly, since this is a course for officer candidates, we present military-specific examples of PM and OM to highlight the relevance of this material to the military experiences they can expect to encounter soon. The military topics we address in the course include the military acquisitions process, examples of risk management for special operations forces, military aircraft assembly/manufacturing, and Air Force continuous process improvement initiatives, as well as an introduction to the Military Logistics Agency and the United States Transportation Command.

Impact and Extensions

Developing a course that addresses PM and OM topics in isolation is a disservice to our officer candidates and our military. It is possible to create a course showing how interrelated the two disciplines are throughout business and military operations. Integrating PM and OM at the correct touchpoints is the solution to this dilemma. We want our officer candidates early in their business/management education to understand that operational results are not optimized




by improving only OM and PM but also by integrating their linked applications to the mission. We demonstrate that project execution and operations planning have the greatest density of connections and that the linkage between these two disciplines is the product development process (PDP). We are careful not to overemphasize the PDP alone, as it could lead to suboptimization but rather to strive for a balance between the two main disciplines.

As we further improve the integrated teaching of OM and PM, we must continue investigating the PDP's role and importance. Research on the PDP may introduce and integrate even more disciplines, such as marketing, systems engineering, and design thinking. Cardinal et al. (2011) speak to the importance of project design concerning project performance. Verona (1999) points out that the PDP ties PM and OM processes together for product effectiveness. We are extending research into the PDP as an avenue to further contribute to PM and OM integration knowledge. We must be thoughtful and prudent in determining the best way to emphasize PDP in this critical officer candidate course.

Conclusion

This article states that PM and OM should be more closely aligned and integrated. At the management department of USAFA, we believe that military leaders should be exposed to both disciplines. Since more material was needed to teach a combined PM/OM course, we researched the management body of knowledge and generated a construct to build a course that combines them. Through this effort, we determined that more than just combining the disciplines was required: we needed to show the synergies of fully integrating the topics. We propose that officers who understand how both project management and operation management work—in an interconnected manner—are critical to achieving an organizational advantage in projects and operations.

To integrate the topics, we followed a process that started with visualizing the disciplines and identifying the critical interconnections. We concluded that the most connections occur between PM execution and OM planning and that understanding and managing these connections help realize the value of a project that enhances ongoing operations.

We built a course emphasizing the integrated nature of PM and OM and focusing on the interconnections. In class, we highlight the connections between PM and OM to show students when to move from PM to OM—or from OM to PM—during their operations or project management efforts. This helps the students choose the appropriate mix of processes, tools, and knowledge for working between the two disciplines to achieve success. 



References

- Borrego, M., & Newswander, L. (2010). Definitions of interdisciplinary research: Toward graduate-level interdisciplinary learning outcomes. *The Review of Higher Education*, 34(1), 61–84. <https://doi.org/10.1353/rhe.2010.0006>
- Bradbeer, T., & Porter, S. (2017). Enhancing learning using multimedia in professional military education. *Journal of Military Learning*, 1(2), 56–68.
- Cardinal, L. B., Turner, S. F., Fern, M. J., & Burton, R. M. (2011). Organizing for product development across technological environments: Performance trade-offs and priorities. *Organization Science*, 22(4), 1000–1025. <https://doi.org/10.1287/orsc.1100.0577>
- Darian, J., & Coopersmith, L. (2001). Integrated marketing and operations team projects: Learning the importance of cross-functional. *Journal of Marketing Education*, 23, 128–135. <https://doi.org/10.1177/0273475301232006>
- Dudley, G. (2005). *Pocket PM: Project management procedures manual*. Pocket PM.
- Goffin, K. (1998). Operations management teaching on European MBA programmes. *International Journal of Operations & Production Management*, 18(5), 424–451. <https://doi.org/10.1108/01443579810206118>
- Hamilton, M. (2019). Prioritizing active learning in the classroom: Reflections for professional military education. *Journal of Military Learning*, 3(2), 3–17.
- Lovejoy, W. S. (1998). Integrated operations: A proposal for operations management teaching and research. *Production and Operations Management*, 7(2), 106–124. <https://doi.org/10.1111/j.1937-5956.1998.tb00443.x>
- Mathews, L., & Jones, A. (2008). Using systems thinking to improve interdisciplinary learning outcomes: Reflections on a pilot study in land economics. *Issues in Integrative Studies*, 26, 73–104.
- Maylor, H., Meredith, J. R., Söderlund, J., & Browning, T. (2018). Old theories, new contexts: Extending operations management theories to projects. *International Journal of Operations & Production*, 38(6), 1274–1288.
- Maylor, H., Vidgen, R., & Carver, S. (2008). Managerial complexity in project-based operations: A grounded model and its implications for practice. *Project Management Journal*, 39(1 Suppl.), S15–S26. <https://doi.org/10.1002/pmj.20057>
- Meinhart, R. (2018). Insights for a committed learning environment. *Journal of Military Learning*, 2(1), 76–93.
- Morgan, M., Malek, W. A., & Levitt, R. E. (2008). *Executing your strategy: How to break it down and get it done*. Harvard Business School Press.
- Morris, P. (2013). Reconstructing project management revisited: A knowledge perspective. *Project Management Journal*, 44(5), 6–23. <https://doi.org/10.1002/pmj.21369>
- Nixon, P., Harrington, M., & Parker, D. (2012). Leadership performance is significant to project success or failure: A critical analysis. *International Journal of Productivity and Performance Management*, 61(2), 204–216. <https://doi.org/10.1108/17410401211194699>

- Pal, R., & Busing, M. (2008). Teaching operations management in an integrated format: Student perception and faculty experience. *International Journal of Production Economics*, 115(2), 594–610. <https://doi.org/10.1016/j.ijpe.2008.07.005>
- Project Management Institute. (2017). *A guide to the project management body of knowledge: PMBOK guide* (6th ed.).
- Ravinder, H., & Kollikkathara, N. (2017). Project management in operations management textbooks: Closing the gap. *Journal of the Academy of Business Education*, 18, 307–324.
- Razak, D., Mills, G., & Roberts, A. (2020). A strategic approach to mitigating operational failure across transitions. *Project Management Journal*, 51(5), 474–488. <https://doi.org/10.1177/8756972820928703>
- Schilling, A., & Hill, C. W. L. (1998). Managing the new product development process: Strategic imperatives. *The Academy of Management Executive*, 12(3), 79–80. <https://doi.org/10.5465/ame.1998.1109051>
- Schroeder, R. G., & Goldstein, S. M. (2021). *Operations management in the supply chain: Decisions and cases*. McGraw-Hill.
- Sheremata, W. A. (2000). Centrifugal and centripetal forces in radical new product development under time pressure. *Academy of Management Review*, 25(2), 389–408. <https://doi.org/10.2307/259020>
- Sobek, D. K., Liker, J. K., & Ward, A. C. (1998). Another look at how Toyota integrates product development. *Harvard Business Review*, 76(4), 36–48. <https://hbr.org/1998/07/another-look-at-how-toyota-integrates-product-development>
- Svanström, M., Lozano-Garcia, F., & Rowe, D. (2008). Learning outcomes for sustainable development in higher education. *International Journal of Sustainability in Higher Education*, 9(3), 339–351. <http://dx.doi.org/10.1108/14676370810885925>
- Topolski, R., Leibrecht, B. C., Porter, T., Green, C., Haverty, R. B., & Crabb, B. T. (2010). *Soldiers' toolbox for developing tactics, techniques, and procedures (TTP)* (Research Report 1919). U.S. Army Research Institute for the behavioral and Social Sciences.
- Verona, G. (1999). A resource-based view of product development. *Academy of Management Review*, 24(1), 132–142. <https://doi.org/10.2307/259041>
- Williams, T. (2020). An evidence-based approach to unit-level teaching and learning. *Journal of Military Learning*, 4(1), 3–17.



Appendix

Schedule of Course Material

Lsn#	Topic
1	Course Introduction
2	Intro to Operations and Project Management/Strategy
3	Project Mgt #1 (Intro to Project Mgt/Customer Satisfaction and Triple Constraint/Initiating (Charter, Handoff, Scope Statement))
4	Project Mgt # 2(WBS/Planning/Planning Docs)
5	Project Mgt # 3 (Simulation/Scheduling/MS Project)
6	Project Mgt # 4 (Fast Tracking and Crashing a Project)
7	Project Mgt # 5 (Project Execution and M&C (Communication, Team, Leadership))
8	Project Mgt # 6 (Analysis of Variance (EVA))
9	Final Project Mgt Topics (Project Closure)
10	EXAM #1
11	OPS Mgt Planning - Product Design/Product Development Process (PM Connection)
12	OM Simulation
13	OM Simulation Discussions/Intro MRP spreadsheet
14	Process Selection (PM Connection)
15	Review of Forecasting
16	Capacity Planning (PM Connection)
17	Capacity Planning Case Study
18	Aggregate Planning
19	OM Simulation Discussion/Strat. (scorecard spreadsheet)
20	Final Ops Mgt Planning Topics



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Appendix

Schedule of Course Material (continued)

Lsn#	Topic
21	EXAM # 2
22	Ops Mgt Execution-Managing Quality
23	OM Simulation Discussion/Capacity Mgt tabs on spreadsheet
24	Quality Control
25	Quality Control Case Study
26	Inventory Management
27	Inventory Management Case Study
28	Scheduling
29	Final Ops Mgt Execution Topics
30	EXAM # 3
31	Ops Mgt Facilitating Topics-Process Flow Analysis
32	Capstone Simulation Introduction/ Expectations for final project/Grading Rubric
33	Value/ Lean Analysis/Case Study
34	Continuous Process Improvement (PM Connection)
35	Supply Chain Management
36	Risk Mgt and Final Ops Mgt Facilitating Topics (PM Connection)
37	EXAM # 4
38	Guest Speaker
39	Capstone Simulation
40	End of Sim Discussion/ End of Course Wrap-Up/Course Feedback

