

NAVAL POSTGRADUATE SCHOOL
Monterey, California



THESIS

**THE DEFENSE FINANCIAL MANAGER:
AN ASSESSMENT OF KNOWLEDGE REQUIREMENTS
AND THE NAVAL POSTGRADUATE SCHOOL
FINANCIAL MANAGEMENT GRADUATE CURRICULUM**

by

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March 2001

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**THE DEFENSE FINANCIAL MANAGER: AN ASSESSMENT OF KNOWLEDGE
REQUIREMENTS AND THE NAVAL POSTGRADUATE SCHOOL FINANCIAL
MANAGEMENT GRADUATE CURRICULUM**

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Submitted in partial fulfillment of the
requirements for the degree of


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from the


**NAVAL POSTGRADUATE SCHOOL
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ABSTRACT

Recognizing the need to improve the capabilities of the Department of Defense (DoD) financial management workforce, the American Society of Military Comptrollers (ASMC) has developed an exam based certification program for DoD financial management personnel, the Certified Defense Financial Manager (CDFM) Program. The purpose of this thesis is to (1) assess how well the Naval Postgraduate School Financial Management curriculum covers the body of knowledge requisite to pass the CDFM examination; (2) recommend options to improve coverage; and (3) develop a student reference guide to aid students in preparing for the exam. The core competencies, knowledge elements, and specific topics that comprise the CDFM body of knowledge were identified through an extensive literature review. Key NPS faculty members were surveyed to assess the level of coverage the Financial Management curriculum provided. The results of the assessment show that the Financial Management curriculum covers approximately 80% of the knowledge requirements in varying degrees, but doesn't provide sufficient coverage of enough of them to fully prepare graduating students to pass the CDFM exam. Several options are proposed to improve the level of coverage including addition of an elective course and providing resources for self-study.

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I. INTRODUCTION

A. BACKGROUND

1. Financial Management In The Federal Government

To ensure that the taxpayers' money is managed efficiently and effectively, and to promote greater accountability in managing the government's finances, Congress has enacted several significant pieces of legislation pertaining to financial management in the federal government. In 1990, passage of the Chief Financial Officers (CFO) Act required the establishment of a chief financial officer in each of the 24 largest government agencies and tasked them with: 1) reorganizing their financial management staffs to work toward reforming accounting and reporting and 2) overseeing financial management and financial information systems in the federal government. The Government Performance and Results Act (GPRA) of 1993 required agencies to submit strategic plans, annual performance plans, and annual performance reports, in effect, changing the way budgets were to be justified and managed and focusing the budget process on planning. Further measures were imposed with the passage of the Government Management Reform Act of 1994 which required the 24 largest agencies to prepare annual financial statements and passage of the Federal Financial Management Improvement Act (FFMIA) of 1996 that required each agency to incorporate accounting standards and reporting objectives established for the federal government so that the full costs of the government's programs and activities could be consistently and accurately recorded and reported. [Ref. 1]

In the ten years that have passed since the passage of the CFO Act, many positive reforms in government financial management have been made. These include: 1) consolidation of hundreds of finance and accounting systems across the government, 2) establishment of a set of official government-wide accounting standards, 3) improvement in the accuracy and timeliness of financial reporting, and 4) modernization of business operations. However, despite the many positive reforms made to date, there are still significant problems that have yet to be resolved. The 1999 Financial Report of the United States Government [Ref. 2] conducted by the General Accounting Office (GAO) states:

In summary, certain significant financial systems weaknesses, problems with fundamental record keeping and financial reporting, incomplete documentation, and weak internal control, including computer controls, continue to prevent the government from accurately reporting a significant portion of its assets, liabilities and costs.

Major problems cited in the GAO report include the inability to: 1) properly account for and report material amounts of property, equipment, materials, and supplies, 2) estimate and report amounts of environmental and disposal liabilities, 3) ensure that disbursements are properly recorded, and 4) properly prepare financial statements. The report also noted that only 13 of the 24 major agencies have received unqualified opinions on their 1999 financial statements. Additionally, for fiscal year 1999, the financial management systems of 19 of the 24 government agencies were found not to be in substantial compliance with the requirements of the FFMLA. [Ref. 2]

As the largest single department within the federal government, the DoD employs approximately 32,000 financial management personnel, and is not immune to the deficiencies noted by the GAO. In fact the GAO has issued several reports pointing out that DoD has not established policies or implemented many of the accounting requirements that are now in effect as a result of the above mentioned legislation. One reason they cite for DoD's failure to implement these requirements is a lack of experience or competencies in DoD's financial management workforce. This issue is highlighted in a GAO report to the Secretary of Defense in June of 1998. [Ref. 3] This report states:

Training is key to bringing DoD financial managers up-to-date and keeping them current on enhanced accounting standards and legislative requirements. Technical accounting and financial training can thereby improve the performance of financial management personnel so they can more effectively lead the department's efforts to pass the test of a financial statement audit and achieve one of the key objectives of the CFO act.

This report is the culmination of a GAO survey that was conducted from June 1996 through March 1998 for the purpose of determining the backgrounds and training of key financial managers in the DoD, selected large state governments and private sector organizations. The report found that many state government and private sector organizations place a strong emphasis on training as a means for upgrading their financial management workforce's knowledge of current financial management, accounting, and

reporting requirements, and that key financial managers in the surveyed governments and organizations received annual training in technical accounting subjects. Additionally, some organizations had established training requirements for their financial personnel and had even designed their training programs to help employees satisfy professional certification training requirements. In contrast, the report noted that over half of the 1,409 DoD financial managers that were surveyed had received no financial or accounting related training during 1995 and 1996. The report also criticized the DoD for not having established a department wide focus with accountability to ensure that efforts to improve DoD's financial managers' training were coordinated with the Secretary of Defense's training reform initiative. [Ref. 3]

2. Certified Defense Financial Manager Program

Recognizing the need to broaden and improve the capabilities of the financial management workforce within DoD, the American Society of Military Comptrollers (ASMC), a non-profit and academically recognized professional society, with support from the senior financial management leadership of the DoD, has developed a DoD-unique certification program for financial management personnel, the Certified Defense Financial Manager (CDFM) Program. The field of financial management in the DoD covers a variety of disciplines requiring competency in many diverse areas. The CDFM program was developed to provide a professionally recognized certification tailored to those unique competencies whereas in the past, financial management professionals were forced to choose among professional certifications intended primarily for the private sector. To be eligible to become a CDFM, candidates must have the following qualifications:

- A high school diploma or equivalent.
- Completed three years of defense related financial management experience or two years of defense related financial management related experience if the candidate holds an Associate, Baccalaureate, or higher degree.
- Successfully complete the CDFM examination.

The CDFM is an examination-based certification that was developed by the ASMC in partnership with the DoD and the Chauncey Group of Princeton Educational Testing Services. The certification was developed and is managed by a certification commission. This commission had the responsibility of defining the requisite body of knowledge one must know to become a CDFM and established the standards of performance for each competency within that body of knowledge. The CDFM examination is a computer based, multiple-choice examination designed to test one's level of knowledge of the competencies that comprise that body of knowledge. The CDFM exam is divided into three modules that together comprise the requisite body of knowledge. These modules are Resource Management Environment, Budget and Cost Analysis, and Accounting and Finance. Each module contains 80 to 85 questions covering the different competencies that fall into the realm of each of module. The exam modules may be taken one at a time, or all in one sitting. The ASMC recommends that to be fully prepared, the exam modules be taken one at a time.

Stressing the importance of achieving professional certification, ASMC provides an internet-based study program on its web site, which is structured to help prepare one for the CDFM exam. This website can be accessed at [<http://www.asmconline.org/cdfm/welcome.html>]. ASMC has also contracted with the U.S. Department of Agriculture (USDA) Graduate School to develop the Enhanced Defense Financial Management Training Course. The purpose of this course is to broaden and improve the overall capabilities of the financial management workforce. [Ref. 4] The course is currently centrally funded by DoD and is available at no cost to DoD personnel in the United States and certain overseas locations.

B. PURPOSE

The purpose of this thesis is to first, identify the body of knowledge, to include: the core competencies, knowledge elements, and specific topics that the ASMC has determined a person should know in order to pass the CDFM examination, and second, to assess how well the Financial Management Curriculum at the Naval Postgraduate School covers them. The ultimate goal of the thesis is to identify those knowledge requirements one needs to know to pass the CDFM examination that are not currently being taught in the Financial Management curriculum for the purpose of: 1) developing options that NPS

may consider implementing to better prepare Financial Management students for taking the exam, and 2) developing a student resource guide to aid NPS students in preparing for the exam.

C. SCOPE AND METHODOLOGY

This thesis includes a review of ASMC on-line resources and the Enhanced Defense Financial Management Training Program student guide for the purpose of determining the body of knowledge to include; the core competencies, knowledge elements, and specific subjects that one could expect to be covered on the CDFM exam. This includes a review of reference materials identified in the student guide on the ASMC website. Once a comprehensive list of subjects on the CDFM exam was developed, an assessment of the NPS Financial Management curriculum was conducted to determine what subjects on the CDFM exam are not covered in the Financial Management curriculum. This assessment included a survey of faculty members responsible for the curriculum content of the Financial Management courses.

D. ORGANIZATION OF THESIS

In Chapter II, the core competencies, knowledge elements and specific topics that comprise the body of knowledge that ASMC has determined one should to know to become a CDFM are identified. This chapter discusses the sources of data and methodology use to develop the comprehensive list of CDFM knowledge requirements. In Chapter III, the NPS Financial Management Graduate Degree requirements and organization of the Financial Management curriculum are discussed. The core competencies and knowledge elements satisfying the degree requirements are identified, and the required and elective classes that provide the foundation of knowledge to satisfy the knowledge elements and core competencies are also identified. In Chapter IV, the results of a faculty survey assessing the FM curriculum's coverage of the CDFM knowledge requirements are presented. In Chapter V, conclusions are drawn from the data presented in Chapter IV and options to better prepare FM students for taking the CDFM exam are presented.

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II. CDFM KNOWLEDGE REQUIREMENTS

A. INTRODUCTION

As stated in the previous chapter, the ultimate goal of this thesis is to identify the body of knowledge to include, the core competencies, knowledge elements and specific topics one needs to know to pass the CDFM exam and identify which of those topics are not currently taught in the Financial Management curriculum. This chapter outlines the sources of data and methodology used to identify the core competencies, knowledge elements, and specific subjects that are covered on the CDFM examination. The results of the research are also presented.

B. SOURCES OF DATA

Two primary sources of information were researched to determine the knowledge requirements covered on the CDFM examination; 1) the Enhanced Defense Financial Manager Training Program Student Guide [Ref.4], and 2) the American Society of Military Comptrollers' website. [Ref.5] These primary sources also identified a comprehensive list of specific references and sources such as textbooks; government and military manuals, regulations, instructions, and other various sources one could use for additional study in preparation for taking the CDFM exam. These references were used as secondary sources of data and a comprehensive list of these references is included as Appendix A. The two primary sources of data are discussed in more detail below.

1. Enhanced Defense Financial Management Training Program Student Guide

The Enhanced Defense Financial Management Training Program is a five-day, intensive financial management review course that was developed by the U.S. Department of Agriculture (USDA) Graduate School under contract by the ASMC. The course, which is licensed and copyrighted by the ASMC, is offered to DoD personnel at various locations in the U.S. and overseas throughout the year. One of the stated course goals is to provide instruction in the competencies covered in the CDFM examination. The structure and content of the course is designed to prepare someone to take each of the three CDFM exam modules. The course is divided into three modules, Resource

Management Environment, Budget and Cost Analysis, and Accounting and Finance. Within each of these modules, core competencies are identified, and specific learning objectives for each of the core competencies are listed. The student guide provided for the course contains extensive and specific information on the subject matter required to satisfy the learning objectives. As a result, the student guide is an excellent source of information to determine the knowledge requirements for the CDFM. However, it should be noted that the ASMC cautions that the course does not fully prepare one for the CDFM exam and that additional study of the topics covered in the course is recommended prior to taking any of the three exams. To facilitate this additional study, the student guide also contains specific references for books, manuals, regulations, instructions, and web sites where additional information can be obtained on the material covered in the course.

2. ASMC On-line Resources

The ASMC maintains a web site dedicated to providing information and resources about the Certified Defense Financial Management Program. The information provided on the web site includes information on exam content, exam registration and scheduling, and testing policies and procedures. The web site also provides training information and resources including a downloadable CDFM Reference Guide, information on the Enhanced Defense Financial Management Course, links to the various DoD service schools providing financial management education and training, and an Internet Self - Study web page that allows someone to link to the various on-line references that are listed in the CDFM Reference Guide. The CDFM Reference Guide provides detailed information about the structure and content of the CDFM exam, and like the Enhanced Defense Financial Management Course, the reference guide is organized into three modules that mirror the three CDFM exam modules. Like the student guide discussed above, the CDFM Reference Guide also identifies the core competencies for each of the three modules. However, instead of listing learning objectives for each of the core competencies as in the student guide, the reference guide and other online materials describing the exam content list knowledge elements for each of the core competencies. While these knowledge elements are similar to the learning objectives listed in the student guide, there is not a one to one correspondence between them.

The reference guide also provides a list of references for each of the core competencies. The reference guide states that these references were used to develop the questions on the CDFM exam. With few exceptions, the references included in the reference guide are the same as those listed in the Enhanced Defense Financial Management Training Program Student Guide. However, there are a few references that are unique to the reference guide and the student guide.

C. METHODOLOGY

Three levels of analysis were used to determine the body of knowledge defined by the DFMC certification committee. The first level of analysis entailed determining the core competencies that, together, encompass the body of knowledge. The second level of analysis entailed determining the various knowledge elements that define the core competencies. The third level of analysis entailed identifying the specific subjects one is required to know within each knowledge element. This section describes the methodology used in each level of analysis. A description of the body of knowledge will follow in Section D.

1. Determining Core Competencies

Core competencies are, by definition, broad in scope and, in the context of this thesis, represent the basic and essential competencies that form the basis of a domain or body of knowledge. ASMC has identified core competencies they feel a financial manager should have knowledge in to be an effective financial manager in the DoD environment. Identifying these core competencies was accomplished by conducting a literature review of the two primary sources of data. The core competencies are clearly and unambiguously identified in both primary data sources. The core competencies were also given a weighting factor, indicated as a percentage of questions one could expect on the CDFM exam about each core competency. The weighting was also clearly identified in both primary sources of data.

2. Determining Knowledge Elements

Knowledge elements, as used in the context of this thesis, are more specific areas of knowledge than are core competencies, and when taken together comprise the body of knowledge that a core competency represents. Simply put, knowledge elements are a

subset of the core competencies. Determining the knowledge elements was accomplished by conducting a literature review of the two primary sources of data, and synthesizing a complete list of knowledge elements from the data gathered. A detailed description of that process follows.

ASMC's definitions of the knowledge elements in the primary sources of data are somewhat ambiguous. The student guide for the Enhanced Defense Financial Manager course lists objectives for each of the core competencies, but doesn't specifically call them knowledge elements. For purposes of this research, the learning objectives in the student guide were treated as knowledge elements. The CDFM Reference Guide available on the ASMC website describes knowledge subject areas for each core competency in a narrative format, while other website literature that describes the CDFM examination contains a list of four or five very short and concise knowledge elements for each core competency. Each of these sources provides valuable insight into what knowledge elements comprise the core competencies, but none of them are identical in either wording or content. The terminology used in describing the knowledge elements varies somewhat between the sources and some elements included in one source are not mentioned in another source. In order to obtain the most comprehensive list of knowledge elements, the following methodology was used.

First, the knowledge subject areas that were described in a narrative format in the ASMC Reference Guide were synopsisized into clear, concise statements for each of the core competencies. Second, the list of short, concise knowledge elements that were listed in other literature on the ASMC website were juxtaposed against the synopsisized statements and then combined into a single list of knowledge elements. In cases where the wording of a knowledge element between the two lists was similar but not exact, personal judgment was used to determine the best wording to combine them into one particular knowledge element. In cases where a knowledge element appeared on only one of the two lists, that element was included in the comprehensive list. In cases where knowledge elements seemed too specific, judgment was again used to combine or include them into a more general knowledge element. What resulted from this process was a single list of knowledge elements derived from the ASMC on-line materials. Next, this list was then juxtaposed against the list of learning objectives found in the student guide and the same process was followed to generate a comprehensive list of knowledge elements. The resulting list of knowledge elements is an all-inclusive list derived from the two primary sources of data.

3. Developing a Comprehensive List of Specific Topics

The term specific subject, as used in the context of this thesis, means an individual topic that falls within the realm of one of the knowledge elements that were identified in the second level of analysis. The specific subjects are a subset of the knowledge elements. Developing a comprehensive list of specific subjects was accomplished by conducting a literature review of the primary and secondary sources of data previously identified, and then synthesizing the data gathered from those sources into one comprehensive list. The methodology is described in more detail below.

The first step involved conducting a detailed review of the Enhanced Defense Financial Manager Student Guide for the purpose of identifying the specific topics that were covered in the course. This review resulted in an extensive list of topics and detailed information related to the knowledge elements for each core competency. The level of detail of the topics on the list was influenced by the structure of the material in the student guide and the weighting given to each of the core competencies.

The second step in the process involved a detailed review of all of the secondary sources of data listed in Appendix A for the purpose of identifying the subject matter contained in each reference that was relevant to the knowledge elements that were developed from the ASMC on-line resources. Considerable judgment was used in this process for two reasons. First, many of the references were very broad in scope and contained information that was unrelated to the knowledge elements. In these cases only the subject matter that was considered relevant to the knowledge elements in a given core competency was included. Second, the level of detail of the subject matter in many of the references was much greater than one would need to know for the CDFM exam. In these cases an appropriate level of detail was determined based upon the weighting given to the related core competency and the desire to mirror the level of detail of the list of topics developed from the student guide.

The last step in this process was to juxtapose both lists of specific topics against each other and combine them into one comprehensive list of specific topics by eliminating duplicated topics and including topics that were unique to each list.

D. PRESENTATION OF DATA

1. Core Competencies

The literature review of the primary sources of data revealed that the ASMC has identified twelve separate core competencies that financial managers in the defense field should be knowledgeable in. These core competencies, which are listed in Table 2.1, represent the basic and essential competencies that ASMC feels a financial manager must know to be effective in the DoD environment. These competencies were clearly identified in both the ASMC on-line materials and Enhanced Defense Financial Manager course and they form the foundation for the body of knowledge that is required to become a CDFM and is tested on the CDFM examination. The weighting that ASMC has given to each of the core competencies is also indicated in Table 2.1. The weighting is the percentage of questions about that core competency on each module. Also, as noted in Table 2.1, the fiscal law competency is included in all three exam modules but is only considered to be one core competency. It is considered to be an overarching competency that is considered important in all three modules and as such is included in each module. The total weighting of the fiscal law competency for all three modules is 35 percent, which makes it the most heavily weighted competency as a percentage of all three modules combined.

Table 2.1. CDFM Core Competencies

GDFM Modules	Core Competencies	Weight
I. Resource Management Environment	1. Government Resource Management Environment	15%
	2. Defense Resource Management Environment.	35%
	3. Personnel Management	15%
	4. Manpower Management	10%
	5. Management and Internal Controls	10%
	6. Fiscal Law*	15%
II. Budgeting and Cost Analysis	7. Planning, Programming, and Budgeting	60%
	8. Cost and Economic Analysis	20%
	9. Business Management Process Improvement	10%
	*Fiscal Law	10%
III. Accounting and Finance	10. Accounting	35%
	11. Finance	35%
	12. Auditing	15%
	*Fiscal Law	15%
* The Fiscal Law core competency is in all three modules but considered as only one core competency		

2. Knowledge Elements

The literature review of the two primary sources of data resulted in the identification of fifty-two knowledge elements. This list of knowledge elements, which is reproduced in Table 2.2, represents a comprehensive list of knowledge elements one needs to have knowledge in to satisfy the core competencies previously identified. As noted in Table 1.1, the Fiscal Law core competency is included in all three modules, but is considered to be only one core competency. One can see from Table 2.2, there are three knowledge elements listed under the fiscal law competency in Module II, two knowledge elements listed in Module III, but no knowledge elements listed under the fiscal law competency in Module I. The knowledge elements were listed in this manner to maintain the basic structure of the subject matter as it was presented in the student guide, as this is considered to be the best example of the content presented in the exam. The ASMC on-line materials do not indicate which knowledge elements they list for the fiscal law competency apply to which module of the exam.

Table 2.2. CDFM Knowledge Elements

Core Competency	Knowledge Elements
Module 1 - Resource Management Environment	
Government Resource Management Environment	<ol style="list-style-type: none"> 1. The federal legislative process and its genesis 2. The authority, responsibility, relationships, and role of the three branches of the federal government 3. The role of the President, the Congress, DoD, the Office of Management and Budget (OMB), and other federal agencies in the federal budget process 4. The major components of the federal budget including sources of revenues
Defense Resource Management Environment	<ol style="list-style-type: none"> 1. The role and organizational structure of the DoD and its impact on the federal budget, and the roles and responsibilities of the senior members in the DoD. 2. The Planning, Programming, and Budgeting System (PPBS), and the relationships and responsibilities of DoD organizations pertaining to resource management and the national defense strategic planning process. 3. Congressional committees and appropriations that are most important to the Defense budget legislative process. 4. Ethical standards related to government service including the rules particular to the DoD 5. Basic information technology tools and applications
Personnel Management	<ol style="list-style-type: none"> 1. Personnel management principles and practices including problem recognition and problem solving. 2. Statutory Merit Principles and Prohibited Practices 3. Processes for hiring, performance appraisal, training, EEO complaints, resolving poor performance, and conflict resolution 4. Generally accepted organization principles and practices including organizations as systems
Manpower Management	<ol style="list-style-type: none"> 1. Relate DoD manpower financial budgets to manpower structure including the calculation of manpower requirements using the formula for FTE. 2. Relevant laws, regulations, and policies, and terminology as they relate to manpower requirements. 3. Determination of peacetime and mobilization manpower requirements. 4. Programs affecting manpower levels including the Commercial Activities Program, Defense Reform initiative and high-grade limitations.

Table 2.2. Continued

Core Competency	Knowledge Elements
Management and Internal Controls	1. Purpose and Requirements of the Federal Manager's Financial Integrity Act of 1982 and OMB Circular A-123 2. Internal control standards techniques, and documentation required in the DoD's Management Control Program and relevant guidance and regulations.
Fiscal Law	See Fiscal Law in Modules II and III
MODULE II - BUDGET AND COST ANALYSIS	
Planning, Programming, and Budgeting	1. DoD Planning, Programming, and Budgeting System (process, terminology, and products) and the role of the key offices in the PPBS process. 2. The DoD budget process including funds management and flow of funds. 3. Purpose and duration of DoD appropriations and the relationships among and use of appropriations and funds. 4. Reimbursable and support agreements. 5. Relevant OMB circulars and implementing DoD guidance.
Cost and Economic Analysis	1. Fundamental principles of cost and economic analysis and DoD cost guidance and principles. 2. Fundamentals of benefit analysis. 3. Cost and economic analysis techniques including statistical methods, activity-based costing, and current installation costing. 4. System acquisition and life cycle management policies and procedures.
Business Management Process Improvement	1. Business Process Reengineering and management of the improvement process. 2. Goals and requirements of the Government Performance Results Act of 1994 3. Relevant circulars, directives, and regulations related to performance of commercial activities including outsourcing and privatization. 4. Miscellaneous funds
Fiscal Law	1. Availability of Appropriations 2. Constitutional and federal agency authorities for expending funds including authorization and appropriation acts, and continuing resolutions 3. Transfers and Reprogramming of Funds
MODULE III - ACCOUNTING AND FINANCE	
Accounting	1. Summarize Laws and regulations impacting DoD accounting and finance practices. 2. Federal Accounting Standards and Generally Accepted Accounting Principles. 3. Basic federal financial statements including U.S. Consolidated Financial Statements. 4. Role of key governmental organizations impacting DoD accounting. 5. Types and use of Government Funds and DoD Fund Categories. 6. Federal Accounting Structure
Finance	1. Focus of DoD Finance including laws and regulations applicable to payment authorization, computation and certification. 2. Disbursing functions and operations. 3. Aspects of safeguarding of assets including Internal controls, debt management, and currency control in disbursing office operations. 4. Certifying policies 5. Payments for Contractors 6. Payments for travel entitlements
Auditing	1. The Purpose of Auditing and Government Audit Standards. 2. DoD Audit Functions and Standards and internal audit groups within the DoD. 3. Types of Government audits, the audit process, and requirements particular to DoD.
Fiscal Law	1. Anti-deficiency act as applied to appropriations including actions that could result in violations and penalties applicable under law. 2. Intent and requirements for using Defense Working Capital Funds.

3. Specific Topics

A literature review of the primary and secondary sources of data was conducted as described in the previous section and the resulting data were used to develop the detailed

list of specific topics for each knowledge element. Appendix B is a comprehensive list of specific topics that ASMC has determined one needs to know to be an effective financial manager in the DoD environment and to pass the CDFM examination. The level of detail of the list of topics was influenced by several factors. The primary factor was the level of detail of the information found in the student guide. In that the student guide was developed specifically to provide instruction on the competencies covered on the CDFM examination, it stands to reason that the level of detail of the material in the student guide accurately represents the level of detail one needs to know about the subject matter to pass the examination. Consequently, the level of detail of the specific topics on the comprehensive list closely resembles that of the student guide. Another factor influencing the level of detail of the topics was the weighting that was applied to each core competency. Those core competencies that were heavily weighted, like Planning, Programming, and Budgeting, had more detailed topics for each of the respective knowledge elements than did a core competency like Management and Internal Controls which wasn't weighted as heavily. Appendix B also indicates specific references that one can use to find additional and supporting information on a particular subject. The numbers in the reference column in Appendix B correspond to the specific reference number of each publication listed in Appendix A.

E. SUMMARY

This chapter identifies the body of knowledge that ASMC has determined one should know to become a Certified Defense Financial Manager and that is encompassed on the CDFM certification exam. Appendix B is a comprehensive list of the core competencies, knowledge elements, and specific topics that comprise that body of knowledge. This information will be used as the baseline in Chapter IV in assessing how well the NPS Financial Management curriculum covers this body of knowledge. In that chapter, the NPS faculty members responsible for the course content of each Financial Management course assess to what degree each FM course covers the individual topics, knowledge elements, and core competencies identified in Appendix B.

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III. NPS FINANCIAL MANAGEMENT CURRICULUM

A. INTRODUCTION

The Financial Management Program at NPS falls into one of five degree programs under the cognizance of the Graduate School of Business and Public Policy. The Financial Management Program is one of a group of eight different curricula that make up the largest of these five degree programs. Graduates of each of the eight curricula within this program are awarded the degree Masters of Science (MS) in Management. The requirements for this degree include:

- Completion or validation of a minimum requisite number of courses in Management Fundamentals (called General Management for the purposes of this thesis).
- Completion of a minimum requisite number of graduate level Management Core courses.
- Completion of an approved sequence of graduate level courses in a student's area of concentration (Financial Management for purpose of this thesis).
- Completion of an acceptable thesis.

The purpose of this chapter is to identify the core competencies and knowledge elements that are taught in the Financial Management Program at the Naval Postgraduate School and to identify the courses provided to the students of the Financial Management Program to satisfy those knowledge elements and core competencies. These data were used in developing a faculty survey that was conducted to assess the extent that the financial management curriculum covers the CDFM knowledge requirements. The data collected and presented in this section were also used in developing the potential options that NPS may wish to consider to better prepare financial management graduates for the CDFM examination.

B. SOURCES OF DATA

The sources of data used to identify the financial management core competencies, knowledge elements, and courses offered to satisfy them were the 2000 NPS General

Catalog [Ref. 6] and the NPS website [Ref. 7]. In addition to these resources, personal experience and discussion with NPS faculty were also used in determining which classes fulfilled the knowledge elements and core competencies.

C. METHODOLOGY AND PRESENTATION OF DATA

This section will discuss the methodology used to determine the core competencies and knowledge elements of the financial management curriculum, and the classes that are provided to satisfy them. The results of the research are also presented in each subsection.

1. Core Competencies

A literature review of the NPS catalog and website was conducted to identify the core competency requirements for the financial management curriculum. This research revealed that curricular programs at NPS are developed based on Educational Skill Requirements (ESRs) that are determined by curriculum sponsors and subject matter experts for each particular program. (For the purpose of this thesis, ESRs are considered the equivalent of core competencies and will be referred to as core competencies from this point on to facilitate comparison with the core competencies identified for the CDFM program in Chapter I). The curriculum sponsor and subject matter expert for the Financial Management Program is the Director of the Fiscal Management Division (N82) of the Chief of Naval Operations organization. The core competencies for the Financial Management Program, as defined by N82, articulate the fundamental concepts required in the financial management curriculum. The following ten core competencies have been identified for the financial management curriculum: [Ref. 6]

- Management Fundamentals .
- Federal and Defense Budgeting
- Funds Management
- Internal Control and Auditing
- Acquisition and Management
- Economy, Efficiency, and Effectiveness

- Cost Management and Analysis
- Strategic Planning and Control
- Strategy and Policy
- Innovation and Creativity

2. Knowledge Elements

A literature review of the NPS catalog and website was conducted to identify the knowledge elements for each core competency. While these sources did not identify a specific list of knowledge elements for each core competencies, they did provide a narrative description of the skills and knowledge required of graduates to fulfill the core competencies. To facilitate the comparison of this information with the list of CDFM Program knowledge elements developed in Chapter I, judgment was used to derive from the narrative descriptions a more concise list of knowledge elements that would be commensurate in detail and scope to the CDFM program knowledge elements. This process resulted in the identification of 24 separate knowledge elements that fulfill the NPS Financial Management core competencies. These knowledge elements are presented with their respective core competencies in Table 3.1.

3. Classes Fulfilling Core Competencies and Knowledge Elements

A literature review of the NPS catalog and website and personal experience as a graduate student in the financial management program at NPS were used to develop the list of courses that satisfy the knowledge elements and core competencies of the financial management curriculum.

As stated previously, the requirements for the degree Masters of Science in Management for the financial management curriculum include completion or validation of a requisite number of courses in General Management and an approved sequence of courses in a student's area of concentration, which for the purposes of this thesis is Financial Management. The regimen of courses required to satisfy these requirements in the Financial Management Program is strictly structured with modest opportunity for students to take courses outside of these two general categories. The program course

Table 3.1 NPS Core Competencies and Knowledge Elements

CORE COMPETENCY	KNOWLEDGE ELEMENT
1. Management Fundamentals	1. The use of quantitative, accounting, economics, information technology, and other state of the art management techniques and concepts applicable in military management problems.
	2. Basic management theory and practices.
	3. Concepts of leadership, communication, organization design, staffing, quality and planning in large private and public sector organizations and military units.
2. Federal and Defense Budgeting	1. The roles of the executive and legislative branches of government in setting federal fiscal policy, allocating resources to national defense, budget formulation negotiations, and execution strategies.
	2. All aspects of Federal, Defense, and Navy budget cycles including the Planning, Programming, and Budgeting Systems (PPBS).
3. Fund Management	1. Management of appropriated revolving and non-appropriated funds in compliance with Department of the Navy and federal regulations.
	2. Guidelines of the Defense Finance and Accounting Systems and the Federal Accounting Standards Advisory Board.
	3. Analysis of financial reports for budget execution and financial performance.
	4. Reallocation or reprogramming of funds.
4. Internal Control and Auditing	1. Audit standards of the General Accounting Office, Defense and Navy audit organizations, and professional standards of the American Institute of Certified Public Accountants.
	2. Audit procedures and techniques that enforce sound internal accounting and administrative controls, safeguard defense assets, review the efficiency and effectiveness of program execution, and assure the completeness and integrity of financial reports.
	3. Navy's Management Control Program.
5. Acquisition Management	1. Purpose and concepts of the Defense systems acquisition process including project management methods used within the process.
6. Economy, Efficiency, and Effectiveness	1. Cost/benefit analysis, systems analysis, and cost estimation and analysis techniques used in the DoD for solving complex and unstructured management problems.
	2. Principles and practices of Total Quality Management (TQM) including Navy and Defense applications.
7. Cost Management and Analysis	1. Cost management policies, practices, and systems encountered in DoD and private sector organizations.
	2. DoD unit costing guidelines.
	3. Office of Management and Budget's (OMB) cost accounting standards for major suppliers of goods and services to the federal government.
8. Strategic Planning and Control	1. Strategic planning and management control concepts for setting goals and objectives; designing programs to achieve objectives; resource management; measuring, evaluating and rewarding performance; and reporting results.
	2. Use of management systems including policies, procedures, organizational structures, and information systems, to ensure optimal use of human, physical and financial resources.
9. Strategy and Policy	1. American and world history and joint and maritime planning.
	2. The organizational structure of the U.S. Defense establishment and the strategic planning process.
	3. The role of the Commanders of the Unified and Specified Commands in the strategic planning.
10. Innovation and Creativity	1. Independent research process including, specifying research questions, formulating a research program, conducting research, and presenting results in writing and orally.

structure does provide students an opportunity to select two elective classes during their last two quarters from a limited list of elective courses that are considered to fall into the realm of Financial Management. Also, a validation process allows students with adequate previous undergraduate or graduate experience in a particular course to opt out of taking one or more General Management courses. Validating courses can free up space in a student's course schedule to take additional classes.

Review of the NPS catalog and web site resulted in the identification of twenty-two required courses and six elective courses currently being offered to satisfy the requirements of the Financial Management Program. Personal experience also reveals that other courses offered by the Graduate School of Business and Public Policy may be approved as optional courses by the department on a case-by-case basis. A complete list of required and optional courses identified in the NPS catalog and on the NPS website are presented in Table 3.2. This list also includes other courses that are offered by the Graduate School of Business and Public Policy that have been previously approved or have the potential of being approved as optional courses. The information in Table 3.2 is presented in a matrix format to show each of the FM core competencies that are covered by each of the courses. This information is based upon review of the course descriptions in the NPS catalog and on the NPS website, input from the Financial Management Curriculum Academic Associate, and upon personal experience. The course description, as presented in the NPS catalog, for each of the courses listed in Table 3.2 is included as Appendix C. It should be noted that the list of courses in Table 3.2 does not include a course that is currently being developed and beta tested in the FM curriculum. This particular course mirrors the Enhanced Defense Financial Management Training Program course described in Chapter I and is being offered as a test course in the winter quarter this year to a group of 11 students who have expressed an interest in taking the course. This course is not included in this thesis because it is not an established course in the FM curriculum and its future has not yet been determined.

Table 3.2 Financial Management Course Matrix

Financial Management Course		Financial Management Core Competencies									
		1	2	3	4	5	6	7	8	9	10
General Management											
MA 2300	Mathematics for Managers										
MN 0123	Computer Skills Development										
IS 2010	Introduction to Information Technology										
IS 3185	Management of Information Technology										
OS 3006	Operations Research for Management										
OS 3101	Statistical Analysis for Management										
MN 3001	Economics for Defense Managers										
MN 3105	Organization and Management										
MN 3140	Microeconomic Theory										
MN 3333	Managerial Communications Skills in the DoD										
MN 4105	Strategic Management										
NW 3230	Strategy and Policy										
Financial Management											
MN 2150	Financial Accounting										
MN 3154	Financial Management in the Armed Forces										
MN 3161	Management Accounting										
MN 3172	Public Policy and Budgeting										
MN 3331	Principles of Systems Acquisition and Program Mgt.										
MN 4151	Internal Control and Auditing										
MN 4153	Seminar in Financial Management										
MN 4161	Management Control Systems										
MN 4162	Strategic Cost Management										
MN 4163	Decision, Cost, and Policy Analysis										
MN 0810	Thesis Research for Systems Management Students										
Optional Courses											
MN4152	Corporate Financial Mgt.										
MN4159	Financial Reporting and Analysis										
MN4302	Defense Resource Policy and Mgt.										
MN4305	Defense Technology Policy										
MN 3155	Financial Management for Acquisition Managers										
OA4702	Cost Estimation										
Financial Management Core Competencies											
1. Management Fundamentals						6. Economy, Efficiency, Effectiveness					
2. Federal And Defense Budgeting						7. Cost Management Analysis					
3. Funds Management						8. Strategy and Policy					
4. Internal Control and Auditing						9. Joint Maritime Strategic Planning					
5. Acquisition Management						10. Innovations and Creativity					

D. SUMMARY

Following a brief discussion of the degree programs offered by the Graduate School of Business and Public Policy at NPS and the general requirements for obtaining a Masters of Science (MS) in Management Degree from NPS, this chapter focuses on the specific requirements of the Financial Management (FM) program. The FM program core competencies and knowledge elements that satisfy the MS degree requirements are identified, and the required and elective courses available to FM students to meet the

knowledge elements and core competencies are also identified. This data was used in developing the strategy for conducting the faculty survey to assess how well the FM curriculum covers the CDFM knowledge requirements.

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IV. ASSESSMENT OF THE NPS FINANCIAL MANAGEMENT CURRICULUM

A. INTRODUCTION

This chapter describes the methodology used in developing and conducting the faculty survey that was used to assess how well the Financial Management (FM) curriculum covers the Certified Defense Financial Management (CDFM) knowledge requirements and the methodology used to analyze the results of the survey. A summary and detailed analysis of the results of the faculty survey are also presented.

B. METHODOLOGY

1. Faculty Survey

The purpose of the faculty survey was to obtain input from the NPS faculty members intimately familiar with or responsible for the content of the required and elective FM curriculum courses as to what degree those courses covered the CDFM knowledge requirements identified in Chapter II. To accomplish this, the survey was developed using the comprehensive list of CDFM knowledge requirements listed in Appendix B, and a rating scale was developed to quantify the level of coverage each FM course had over each specific topic, knowledge element, and core competency listed in Appendix B. The rating scale used in the survey was:

- 0 - No Coverage** (Not a curriculum topic. Never discussed.)
- 1 - Little Coverage** (Minor curriculum topic discusses briefly.)
- 2 - Some Coverage** (Minor curriculum topic discussed at some length.)
- 3 - Significant Coverage** (Minor to major curriculum topic discussed at length.)
- 4 - Thorough Coverage** (Major curriculum topic discussed in detail.)

The rating scale descriptions, while subjective in nature, were selected because they were easy to differentiate and their level of detail facilitated the assessment and analysis of the survey results. Application of a mathematical formula for determining the level of coverage was considered inappropriate in this application.

To streamline the survey process, a matrix showing the relationship between the FM courses and the CDFM core competencies was developed to identify which core competencies and related knowledge elements and specific topics would be surveyed for each course. A review of the course descriptions from the NPS course catalog and personal experience from having taken the courses were used to determine which courses covered any of the knowledge requirements for each of the CDFM core competencies. Figure 4.1 shows which FM courses covered any of the knowledge requirements for each CDFM core competency.

Figure 4.1 NPS FM Course/CDFM Competency Matrix

Financial Management Courses		CDFM Core Competencies											
General Management		1	2	3	4	5	6	7	8	9	10	11	12
MA 2300	Mathematics for Managers												
MN 0123	Computer Skills Development												
IS 2010	Introduction to Information Technology												
IS 3185	Management of Information Technology												
OS 3006	Operations Research for Management												
OS 3101	Statistical Analysis for Management												
MN 3001	Economics for Defense Managers												
MN 3105	Organization and Management												
MN 3140	Microeconomic Theory												
MN 3333	Managerial Communications Skills in the DoD												
MN 4105	Strategic Management												
NW 3230	Strategy and Policy												
Financial Management													
MN 2150	Financial Accounting												
MN 3154	Financial Management in the Armed Forces												
MN 3161	Management Accounting												
MN 3172	Public Policy and Budgeting												
MN 3331	Principles of Systems Acquisition/Program Mgt.												
MN 4151	Internal Control and Auditing												
MN 4153	Seminar in Financial Management												
MN 4161	Management Control Systems												
MN 4162	Strategic Cost Management												
MN 4163	Decision, Cost, and Policy Analysis												
MN 0810	Thesis Research for Systems Mgt. Students												
Optional Courses													
MN4152	Corporate Financial Mgt.												
MN4159	Financial Reporting and Analysis												
MN4302	Defense Resource Policy and Mgt.												
MN4305	Defense Technology Policy												
MN 3155	Financial Management for Acquisition Managers												
OA4702	Cost Estimation												
CDFM Core Competencies													
1. Government Resource Management Environment						7. Planning Programming and Budgeting							
2. Defense Resource Management Environment						8. Cost and Economic Analysis							
3. Personnel Management						9. Business Management Process Improvement							
4. Manpower Management						10. Accounting							
5. Management and Internal Controls						11. Finance							
6. Fiscal Law*						12. Auditing							

After identifying which core competencies would be surveyed for each class, a survey was prepared for the responsible faculty member for each course. The Financial Management Academic Associate determined the responsible faculty members. An example of the survey for the Government Resource Management Environment core competency is shown in Figure 4.2.

Figure 4.2 Sample Faculty Survey

Faculty Survey For MN 3154 Instructor: CDR Hleba		Rating Scale:						
		0- No Coverage	3- Significant Coverage					
		1- Little Coverage	4- Thorough Coverage					
		2- Some Coverage						
CDFM KNOWLEDGE REQUIREMENTS			FACULTY RATING					
Core Competency	Knowledge Elements	Specific Topics	0	1	2	3	4	
Government Resource Management Environment	1. The federal legislative process and its genesis.	1. Genesis of Legislative Process						
		2. Legislative Process						
		a.) Forms of Legislative Business						
		b.) Origins of Legislation						
		c.) House and Senate Committees						
		d.) Conference Committees						
		e.) How bill becomes law						
	f.) Presidential action (approve/veto)							
	2. The authority, responsibility, relationships, and role of the three branches of the federal government.	1. Legislative Branch						
		2. Executive Branch						
		3. Judicial Branch						
	3. The role of the President, the Congress, DoD, the Office of Management and Budget (OMB), and other federal agencies in the federal budget process.	1. The Budget Process						
		a.) Budget Formulation						
		1.) Major Steps and Timeline in Formulation Phase						
		2.) Role of DoD and Other Agencies						
		3.) Role of OMB						
		4.) Role of President						
		b.) Budget Review						
		1.) Role of Congress						
		2.) Role of DoD and Other Agencies						
		3.) Role of President						
		c.) Budget Execution						
		1.) Role of OMB						
		2.) Role of DoD and Other Agencies						
		3.) Budget Execution Terminology						
		d.) Performance Review and Audit						
	1.) Role of Congress							
	2.) Role of DoD and Other Agencies							
4. The major components of the federal budget including sources of revenues.	1. Size of Federal budget vs. GDP							
	2. Major Sources of Revenue							
	3. Major Budget Spending Categories							
	4. Legislation Impacting the Federal Budget							
	5. Budget Surplus and Debt							

As can be seen in Figure 4.2, the survey contained the specific topics and knowledge elements for each core competency exactly as they are listed in the comprehensive list of CDFM Knowledge Requirements in Appendix B. Twenty-three surveys were completed by nineteen faculty members that were personally interviewed and asked to assess, using the rating scale previously discussed, their respective course's coverage of the specific topics listed on the survey. Once a rating was given to each specific topic, the faculty member was then asked to assess the overall rating for each knowledge element based upon the ratings they provided for the specific topics. Finally, the faculty member was asked to assign an overall rating for the core competency. Any questions the faculty member had concerning the content of the survey were answered by the interviewer at the time of the interview.

After the interviews were completed, the results of the survey were then entered into an Excel spreadsheet and formatted to facilitate the analysis of the data. The organization and formatting of the data are discussed in detail in the next section. The results of the faculty survey are reproduced in their entirety in Appendix D.

2. Data Analysis

As stated previously, the overall goal of this thesis is to identify those knowledge requirements needed to pass the CDFM examination that are not taught in the FM curriculum for the purpose of: 1) developing options that NPS may consider implementing to better prepare FM graduates for taking the exam, and 2) developing a guide to aid FM students in preparing for the exam. The data obtained through the faculty survey were organized and formatted in a manner to facilitate achievement of that goal. Figure 4.3 reproduces the first page from Appendix D, which contains the complete results of the faculty survey. Figure 4.3 will be used to explain the manner in which the faculty survey data were organized, displayed, and summarized for analysis.

a. Organization of Data






As can be seen in Figure 4.3, an Excel spreadsheet was used to develop a matrix using the CDFM core competencies, knowledge elements, and specific topics as the rows, and the FM courses as the columns. The line items and organization of the rows in the matrix are identical to the line items and organization of the data listed in Appendix

B and the line items used in the faculty surveys. The columns of the matrix are the FM courses organized into General Management (GM), Financial Management (FM), and Elective Course categories. The General Management and Financial Management categories together comprise the required courses in the FM curriculum; while the Elective Courses are the set of courses from which a FM student is only required to take two in order to meet the MS degree requirements.

b. Data Display

Due to the size of the matrix and the volume of data cells in Appendix D, a formatting scheme was implemented to facilitate the viewing and interpretation of the data. The data cells were conditionally formatted so that each cell was colored a different color depending on the number that was inputted into the cell. The formatting scheme is reproduced in Figure 4.4.

Figure 4.4 Data Formatting Scheme

<u>Rating</u>	<u>Description</u>	<u>Cell Format</u>
0	No Coverage	
1	Little Coverage	
2	Some Coverage	
3	Significant Coverage	
4	Thorough Coverage	

Organizing and displaying the survey results in this manner facilitated the analysis of the data, the formulation of options to modify the existing FM curriculum, and the development of a student study guide in the following manner:

1. The specific topics, knowledge elements, and core competencies that an individual course covers, and the degree to which they are covered in each course, can be determined quickly by looking down each column.
2. By scanning across each row, one can quickly determine the degree to which all of the FM courses cover each specific topic, knowledge element, and core competency. This analysis can be extended to assess how well each of the categories or combination of categories of FM courses covers each specific topic, knowledge element and core competency.

3. Specific topics not covered by the FM curriculum are easily identified. Since the list of specific topics in the matrix is identical to those in Appendix B, it was relatively easy to identify the resources recommended for additional study when developing the student study guide.

4. The organization of the CDFM knowledge requirements by knowledge element and core competency was useful in developing options to modify the FM curriculum. For example, where a large block of specific topics within a knowledge element or core competency was identified as not being covered, one option could be developed. Where a single topic was identified as not being covered, a different option could be developed. Also, the organization of the knowledge requirements made it relatively easy to identify a specific course or courses in the FM curriculum that covered similar information and could be modified to include any of the specific topics that are not currently covered.

c. Data Summary: By Topic

Once the data from the 23 faculty surveys were entered into the matrix, an overall rating of the coverage of the CDFM knowledge requirements for the GM and FM Course categories was determined. An overall rating was also determined for the Required Courses category, which are simply the GM and FM categories combined. The overall ratings for the specific topics were determined by reviewing all of the ratings for each specific topic within each category and making a judgment as to how well that topic was covered. In general, the overall rating for each topic by category was determined by the highest rating that topic achieved in any of the courses included in that category. For example, in Figure 4.3, the line item 1.2.a.) Forms of Legislative Business, which falls under the Government Resource Management Environment core competency, did not receive an assessment higher than a "0" in any of the General Management category courses so it received an overall rating of "0" for that category. The same line item received assessments of "1", "4", and "3", in three courses in the Financial Management category, so it received an overall rating of "4" in that category. Likewise, the line item also received a "4" in the Required Courses category due to the "4" it received in the Financial Management Category.

d. Data Summary: By Knowledge Element and Core Competency

The overall ratings for each knowledge element and core competency were determined by reviewing all of the overall ratings for the subordinate specific topics and

making a judgment as to how well the components of the knowledge element and core competency were covered. For example, in Figure 4.3, the first knowledge element under the Government Resource Management Environment core competency received an overall rating of “0” in the GM category because none of the subordinate specific topics received an assessment higher than a “0”. That same knowledge element receive an overall rating of a “4” in the FM and Required Courses categories because it was the writer’s judgment that level of coverage of the subordinate specific topics warranted a “4”.

No overall rating was provided for the Elective Course category because giving an overall rating of the coverage of the CDFM knowledge requirements for this category would be misleading for two reasons. First, the level of coverage of the CDFM knowledge requirements by the elective courses varies greatly. Since most students only take two of the elective courses during their tenure at NPS, it is highly probable that one student may gain considerable exposure to the CDFM knowledge elements by taking two of the elective courses while another student may gain very little exposure to the CDFM knowledge requirements by taking two different courses. Second, the elective courses are not offered every quarter and may not be available for students to take due to scheduling conflicts. An example of this is MN 4302, Defense Resource Policy and Management, which has not been offered at NPS in the last two years, but was assessed as covering a significant amount of the CDFM material. Consequently, providing an overall rating for the Elective Course category would not accurately reflect the coverage of the CDFM knowledge requirements a student is sure to be exposed by the FM curriculum. However, the information gained from that data assessing the elective courses was nonetheless valuable in developing options to modify the curriculum and developing the student study guide.

C. RESULTS OF DATA ANALYSIS

This section presents the findings of the faculty survey conducted for the purpose of determining the level of coverage of the CDFM knowledge requirements by the FM curriculum. In this section, summary and detail findings based upon the results of the faculty survey are presented. The complete results of the faculty survey are reproduced in their entirety in Appendix D. Where practical, charts and graphs are produced using the data in Appendix D to aid in discussion and understanding of the findings. This section

deals only with the findings from the data and does not attempt to draw any conclusions. The following Chapter is used to draw conclusions from the data presented here. More detailed descriptions of the findings are provided in each section below.

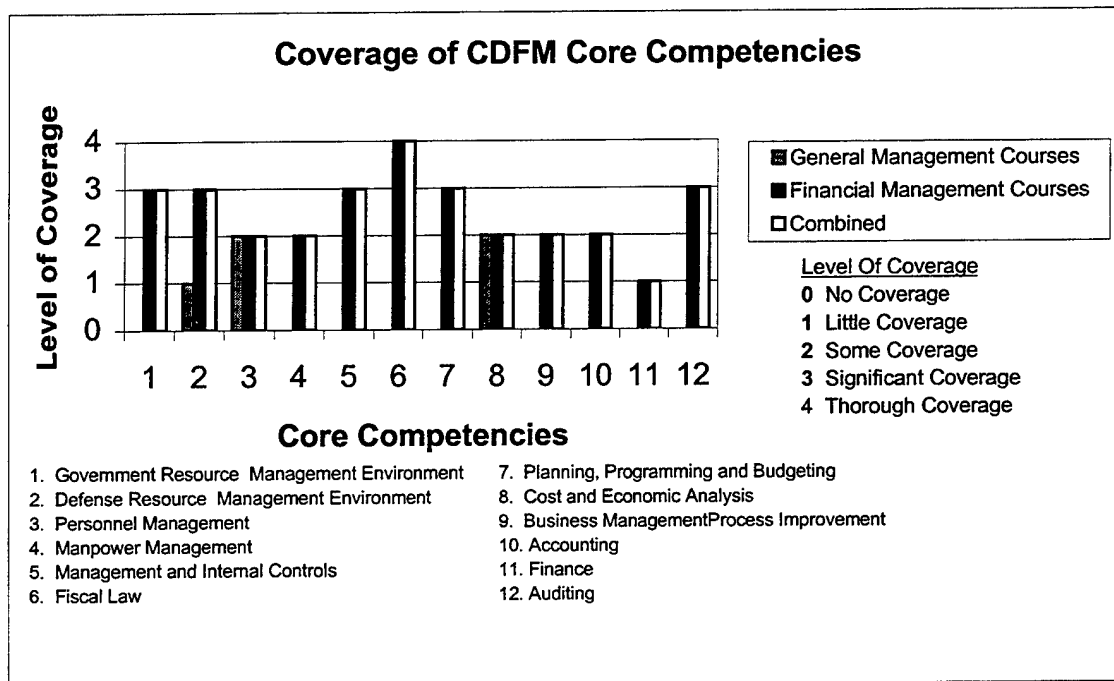
1. Summary Findings

The findings in this section are intended to provide an overall assessment of how well the FM curriculum covers the CDFM core competencies, knowledge elements, and specific topics. For reasons discussed in the previous section, the impact of the elective courses is not included in the summary analyses. The summary analyses only take into consideration the impact from the required courses. A more detailed analysis of the coverage of the CDFM knowledge requirements, including the elective courses, is presented in the detailed findings.

a. Summary Findings for CDFM Core Competencies

Figure 4.5 shows how well each of the CDFM core competencies is covered by the GM courses, the FM courses, and the combination of the two (all required courses).

Figure 4.5 Coverage of CDFM Core Competencies

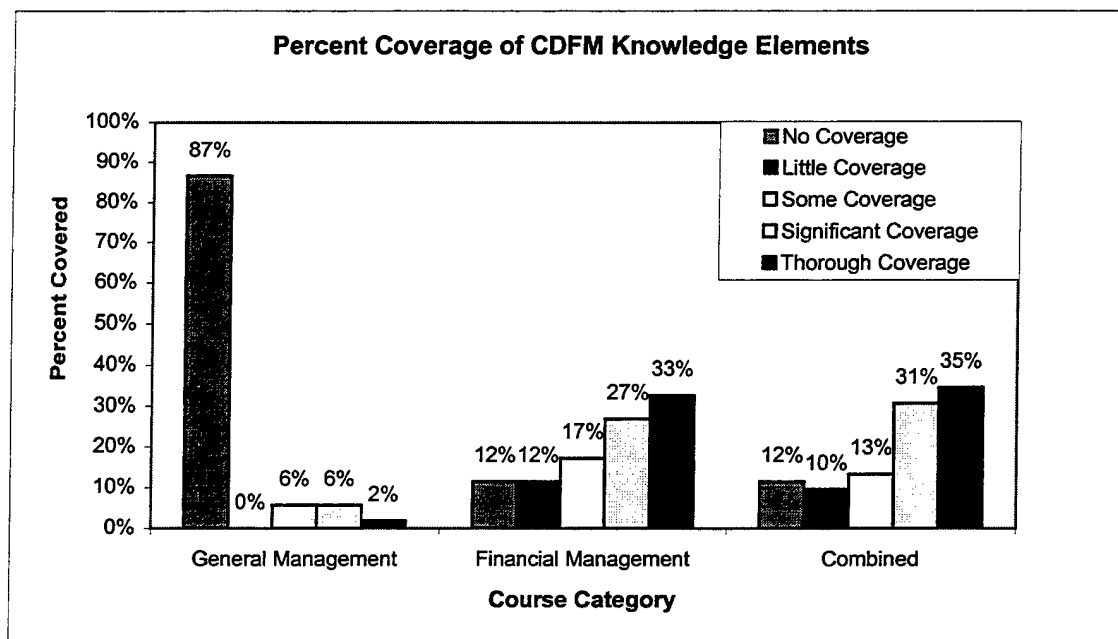


As this chart clearly shows, the GM courses have very little impact on the level of coverage provided by the FM curriculum; providing only some coverage of two core competencies, little coverage of one core competency, and no coverage of the remaining nine core competencies. Figure 4.5 clearly shows that the FM courses provide the highest level of coverage; providing thorough coverage of one core competencies, significant coverage of five core competencies, some coverage of five core competencies, and little coverage of the remaining competency. The greatest impact of the FM curriculum is in the Fiscal Law, Planning, Programming, and Budgeting, Government and Defense Resource Management, Management and Internal Controls, and Auditing core competencies. The remaining core competencies of Personnel and Manpower Management, Cost and Economic Analysis, Business Management Process Improvement, Accounting, and Finance are not covered very well.

b. Summary Findings for CDFM Knowledge Elements

There were a total of 52 separate knowledge elements identified in Chapter II as being a part of the CDFM body of knowledge. Figure 4.6 shows graphically the percentage of knowledge elements that are covered by the GM courses, FM courses, and the combination of the two, and the degree to which they are covered.

Figure 4.6 Coverage of CDFM Knowledge Requirements

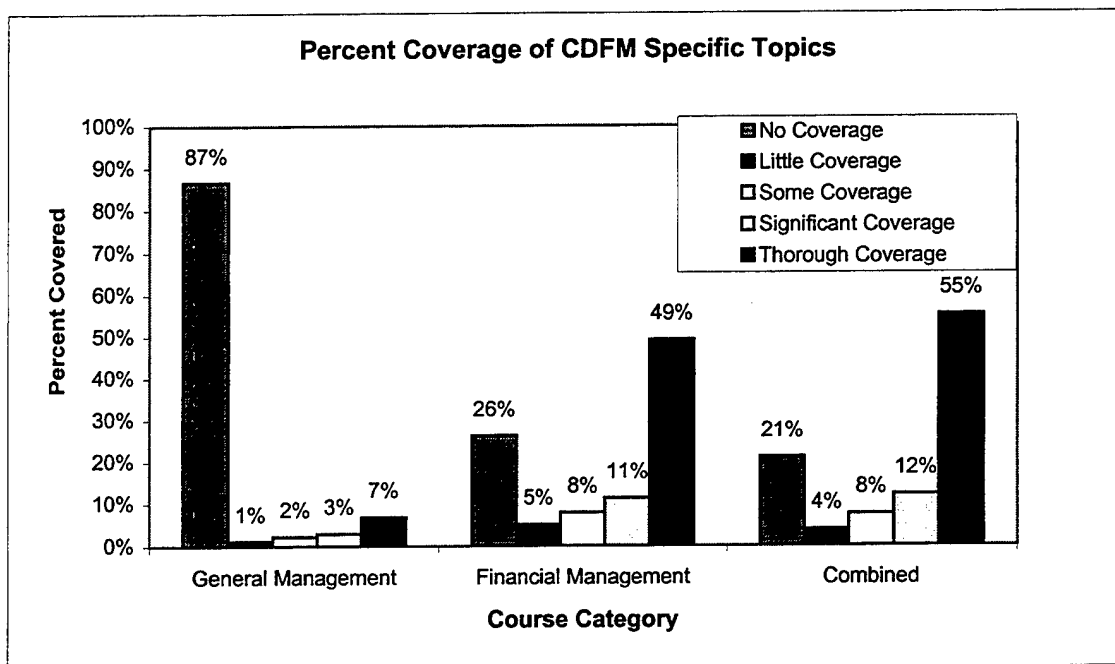


The chart clearly shows that the GM courses do not cover the knowledge elements very well with 87% of the knowledge elements receiving no coverage at all, 6% having some and significant coverage, and only 2% having thorough coverage. By contrast, the FM courses cover 33% of the knowledge elements thoroughly, 27% significantly, 17% have some coverage, and 12% have only little or no coverage. Overall the FM curriculum provides thorough coverage of 35% of the knowledge elements, significant coverage of 31%, some coverage of 13%, little coverage of 10%, and no coverage of 12% of the knowledge elements.

c. Summary Findings for CDFM Specific Topics

The CDFM body of knowledge that was defined in Chapter II included a total of 739 specific topic line items. Figure 4.7 graphically shows the percentage of the specific topics that are covered by the GM and FM courses by category, and the combination of the two, as well as the degree to which the specific topics are covered.

Figure 4.7 Coverage of CDFM Specific Topics



As with the knowledge elements discussed in the previous section, the GM courses do not provide much coverage of the specific topics with 87% receiving no coverage, 1% receiving little coverage, 2% receiving some coverage, 3% receiving

significant coverage, and 7% receiving. The FM courses provide significantly better coverage with 49% of the specific topics receiving thorough coverage, 11% receiving significant coverage, 8% receiving some coverage, 5% receiving little coverage, and 20% receiving no coverage. Together, the GM and FM courses provide thorough coverage of 55% of the specific topics, significant coverage of 12%, some coverage of 8%, little coverage of 4%, and no coverage of 21% of the specific topics.

2. Detailed Findings

In this section each core competency, with its associated knowledge elements and specific topics, is analyzed in detail. Observations concerning the degree of coverage by the FM courses, including the elective courses, of the CDFM knowledge requirements are made. Where practical, tables are presented to aid in the discussion and understanding of the material at the knowledge element level. It was not practical however, to provide tables of the specific topics within the text of the thesis due to the large volume of specific topics involved, 739 in total, so the reader will be referred to the appropriate section of Appendix D where specific topics are discussed. Analysis of the coverage of specific topics is focused on the number of topics that are or are not covered by the FM courses, not on the subject matter of the specific topics. Assessments concerning the feasibility of incorporating the specific topics that are not thoroughly covered into the FM curriculum are made based upon the author's personal experience with having taken the required courses.

a. Government Resource Management Environment

Observations: As Table 4.1 clearly shows, while this core competency is not covered at all by the GM courses, the FM courses provide thorough to significant coverage of each of the knowledge elements. Among the three courses, MN3154, MN3172, and MN4153, all of the specific topics receive thorough coverage with the exception of one topic under the first knowledge element and one topic under the second knowledge element (see pages 88-89 of Appendix D). MN3154 and MN3172 provide the most thorough coverage of the knowledge requirements under this core competency. Three of the elective courses provide some to thorough coverage of all of the specific topics with MN4302 clearly providing the most coverage. If MN4302 were taken along with the required courses, it would increase the overall rating for the core competency to

thorough coverage. It should be noted that this course is not regularly offered and has not been taught at NPS for nearly two years at the time of this writing.

Table 4.1 Coverage of Government Resource Management Environment

Core Competency Knowledge Elements	Required Courses														Elective Courses														
	General Management							Financial Management																					
	MA 2300	MN 0123	IS 2010	IS 3186	OS 3006	OS 3001	MN 3001	MN3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	Overall R	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702
Government Resource Management Environment																													
1. The federal legislative process and its genesis.														2														2	2
2. The authority, responsibility, relationships, and role of the three branches of the federal government.													1															1	
3. The role of the President, the Congress, DoD, the Office of Management and Budget, and other federal agencies in the federal budget process.																												2	2
4. The major components of the federal budget including sources of																												2	1

Assessment: The overall rating for this core competency could be increased from significant coverage to thorough coverage in the Required Courses category without much difficulty by including those two topics that do not currently receive thorough coverage into either MN3172 or MN3154.

b. Defense Resource Management Environment

Observations: Similar to the previous core competency, the FM courses provide significant to thorough coverage of all the specific topics related to this core competency and knowledge elements with the exception of the last knowledge element, Basic Information Technology Tools and Applications. As can be seen in Table 4.2, only one GM course, IS2010 provides thorough coverage of the topics under that knowledge element. With the exception of IS2010 however, the GM courses provide no other coverage of the knowledge elements in this core competency. Among four of the FM courses, MN3154, MN3172, MN3331, and MN4153 all of the topics under this core competency receive significant to thorough coverage with the exception of one topic under the first knowledge element. Again, MN3154 and MN3172 provide the most

significant coverage, with MN3331 and MN4153 providing somewhat less. Almost half of the topics under the first knowledge element receive significant coverage (see pages 89-90 of Appendix D), and as Table 4.2 shows, this prevents the first knowledge element, and subsequently the core competency, from being rated as thorough coverage. Three of the elective courses provide some to thorough coverage of the first three knowledge elements, but little to no coverage of the last two knowledge elements. Again, MN4302 provides the highest degree of coverage of any of the elective courses. Taking any of these courses with the required courses will not increase exposure to the CDFM knowledge requirements.

Table 4.2 Coverage of Defense Resource Management Environment

Core Competency Knowledge Elements	Required Courses														Elective Courses															
	General Management							Financial Management																						
	MA 2300	MN 0123	IS 2010	IS 3186	OS 3006	OS 3001	MN 3001	MN3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 3164	MN 3161	MN 3172	MN 3331	MN 4151	MN 4163	MN 4161	MN 4162	MN 4163	Overall FM	Overall Req	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702
Defense Resource Management Environment			1									1																		
1. The role and organizational structure of the DoD and its impact on the federal budget, and the roles and responsibilities of the senior members in the DoD.																	2													
2. PPBS and the Budgeting System, and the relationships and responsibilities of DoD organizations pertaining to resource management and the national defense strategic planning process.																												1	2	
3. Congressional committees and appropriations which are most important to the Defense budget legislative process.																	2											2		
4. Ethical standards related to government service including the rules particular to the DoD.																	1		1										1	
5. Basic information technology tools and applications.																2	1		1				2				1	1		

Assessment: Like the previous core competency, the overall rating for this core competency could be raised to thorough coverage by increasing the coverage of the seven topics under the first knowledge element that currently receive some to significant coverage. This could be accomplished fairly easily within the existing curriculum.

c. *Personnel Management*

Observations: This core competency is one of five competencies that received an overall rating of “some coverage.” As Table 4.3 shows, the first and fourth knowledge elements receive significant coverage, the third knowledge element receives some coverage, and the second knowledge element receives no coverage at all. In this core competency, the GM courses provide more coverage of the knowledge elements than do the FM courses. In particular, OS3006 and MN3105 provided from little to thorough coverage of all of the topics under the first knowledge element except one. MN 3105 also provides varying coverage of half of the topics under knowledge element three and all of the topics under knowledge element four. MN3333 provides little to some coverage of about half of the topics under knowledge element four and thorough coverage of four of the topics (see pages 91-93 of Appendix D). One FM course, MN4161, provides thorough coverage of half of the topics under the first knowledge element, but no coverage of the rest of the knowledge elements. None of the elective courses cover any of the specific topics under this core competency.

Table 4.3 Coverage of Personnel Management

Core Competency Knowledge Elements	Required Courses														Elective Courses																	
	General Management							Financial Management																								
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3001	MN 3001	MN3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN4162	MN 4163	Overall FM	Overall Req	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702	
Personnel Management					1		2		1			2						1		2			2	2								
1. Personnel management principles and practices including problem recognition and problem solving.				2																	2			2								
2. Statutory Merit Principles and Prohibited Practices.																																
3. Processes for hiring, performance appraisal, training, EEO complaints, resolving poor performance, and conflict resolution.							2					2					1							1	2							
4. Generally accepted organization principles and practices including organizations as systems.									2								1			2				2								

Assessment: It would be difficult to incorporate all the specific topics that are not covered thoroughly in this core competency into the existing classes for several reasons. First, some of the topics are normally associated with a “training” level course and may be considered inappropriate for a graduate level course. Second, the topics

themselves may not fit well into an existing course curriculum. For example, knowledge element three contains specific topics on federal hiring practices, training, and handling of EEO complaints (see pages 91-92 of Appendix D). While these topics are important to a defense financial manager, they will not necessarily fit well into a course on organization and management like MN 3105, or into any other course that is currently offered at NPS. Lastly, the number of topics that would need to be incorporated, 45 in total, would most likely require a major change to an existing course curriculum. For reasons discussed in the next chapter, major changes to existing courses may not be advisable or beneficial. That being said however, it would be possible to increase the coverage on specific topics that already have some or significant coverage in an effort increase the overall coverage of the CDFM knowledge elements without major changes to existing course.

d. Manpower Management

Observations: As Table 4.4 clearly shows, this core competency is not well covered by the FM curriculum. With an overall rating of some coverage, neither the GM or Elective courses have any coverage of the knowledge elements.

Table 4.4 Coverage of Manpower Management

Core Competency Knowledge Elements	Required Courses														Elective Courses																	
	General Management							Financial Management																								
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3007	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	Overall R	MN 4162	MN 4169	MN 4302	MN 4305	MN 3155	OA 4702		
Manpower Management														2					2					2	2							
1. Relate DoD manpower financial budgets to manpower structure including the calculation of manpower requirements using the formula for FTE.														2					2					2	2							
2. Relevant laws, regulations, and policies, and terminology as they relate to manpower requirements.														2					1					2	2							
3. Determination of peacetime and mobilization manpower requirements.																																
4. Programs affecting manpower levels including the Commercial Activities Program, Defense Reform initiative and high-grade limitations.														2																		

Additionally, the FM courses only cover knowledge element four significantly, while providing some coverage of knowledge elements one and two and no coverage of

knowledge element three. Two FM courses, MN3154 and MN4153 provide all the coverage of the specific topics for this core competency.

Assessment: As with the Personnel competency, some of the specific topics not covered in this core competency may not be suitable for a graduate level course. The topics under knowledge element three fall into this category (see pages 93-94 of Appendix D). It would not be too difficult to increase the coverage of topics under knowledge elements one and four in either MN3154 or MN 4153. Also, the topics under knowledge element two are very specific topics that could also be covered quickly in either of these two courses.

e. Management and Internal Controls

Observations: As table 4.5 shows, this core competency has significant coverage by three FM courses; MN3154, MN4151, and MN4161. MN3154 consistently provides significant coverage of all of the specific topics under both knowledge elements with thorough coverage of three topics. While MN4151 provides an overall level of significant coverage of knowledge requirement two, it provides thorough coverage of 13 of the 19 specific topics in that knowledge element (see page 95 of Appendix D). Neither GM nor Elective courses provide any coverage..

Table 4.5 Coverage of Management and Internal Controls

Core Competency Knowledge Elements	Required Courses														Elective Courses																	
	General Management								Financial Management																							
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3001	MN 3001	MN3106	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4153	Overall FM	Overall R	MN 4162	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702	
Management and Internal Controls																																
1. Purpose and Requirements of the Federal Manager's Financial Integrity Act of 1982 and OMB Circular A-123.															4					1												
2. Internal control standards techniques, and documentation required in the DoD's Management Control Program and relevant guidance and regulations.																						2										

Assessment: Given the nature of the specific topics and the level of coverage already provided by MN3154 and MN4151, it would be relatively easy to

increase the level of coverage for the topics under knowledge element one in MN3154 and increase the level of coverage of the topics under knowledge element two in MN4151 so that all of the topics in this competency received thorough coverage. The level of coverage provided by MN4161 is relatively minor so it would take considerable more effort to increase the level of coverage in that class than in the other two.

f. Fiscal Law

Observations: Fiscal Law is the only competency that is thoroughly covered by the FM curriculum. As table 4.6 shows, four required courses provide some to thorough coverage for all of the specific topics in this core competency. MN3154 clearly provides the most thorough coverage (see pages 102-103 and 110 of Appendix D). One Elective Course MN3155 also provides some to significant coverage of all of the knowledge elements under this competency.

Table 4.6 Coverage of Fiscal Law

Core Competency Knowledge Elements	Required Courses														Elective Courses														
	General Management							Financial Management																					
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	Overall R	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702
Fiscal Law																													
1. Availability of Appropriations.													2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2. Constitutional and federal agency authorities for expending funds including authorization and appropriation acts, and continuing resolutions.														1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3. Transfers and Reprogramming of Funds.													2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4. Anti-deficiency act as applied to appropriations including actions that could result in violations and penalties applicable under law.																													2
5. Intent and requirements for using Defense Working Capital Funds.																	2	2	2	2	2	2	2	2	2	2	2	2	2

Assessment: Inasmuch as this core competency is currently thoroughly covered, there is no need to modify the curriculum in order to increase the level of coverage presently provided.

g. Planning, Programming, and Budgeting

Observations: The Planning, Programming and Budgeting competency currently receives excellent coverage. As Table 4.7 shows, four FM courses provide thorough coverage to almost all of the specific topics in this competency. Only eleven topics under knowledge element two are not thoroughly covered, thus preventing knowledge element two and the competency as a whole from receiving thorough coverage overall. As in the Fiscal Law competency, MN3154 provides the most significant coverage of all of the topics under this competency. MN3172 provides the next largest contribution to coverage of the specific topics with MN3331 and MN4153 providing somewhat less (see pages 95-99 of Appendix D). Three elective courses provide some degree of coverage, with MN 4302 providing the most significant contribution. MN3155 does provide little to some coverage on most of the topics in the first three knowledge elements, but not much detailed coverage. MN 4305 provides minimal coverage of topics in the three knowledge elements as well.

Table 4.7 Coverage of Planning, Programming, and Budgeting

Core Competency Knowledge Elements	Required Courses											Elective Courses																			
	General Management						Financial Management					Overall FM	Overall Rg																		
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3001	MN 3001	MN3105	MN 3140	MN 3333	MN 4105			NW 3230	Overall GM	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN4162	MN 4163	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702	
Planning, Programming, and Budgeting																															
1. PPBS (process, terminology, and products) and the role of the key offices in the PPBS process.																															
2. The DoD budget process including funds management and flow of funds.																															
3. Purpose and duration of DoD appropriations and the relationships among and use of appropriations and funds.																															
4. Reimbursable and support agreements.																															
5. Relevant OMB circulars and implementing DoD guidance.																															

Assessment: Increasing rating of this competency to “thoroughly covered” would not be difficult to accomplish. The twelve topics not thoroughly covered could easily be added into both MN3154 and MN3172. Adding any of the twelve topics

into either MN3331 or MN4153 would not be as easy because these topics are not covered at all or covered very little in these classes.

h. Cost and Economic Analysis

Observations: As Table 4.8 shows, this core competency is covered by a variety of GM, FM and Elective courses, but none of them provide overall significant or thorough coverage. This is attributable to the breadth of topics that are included in this competency (see pages 99-101 of Appendix D). The first knowledge element does not have an overall rating higher than some coverage, even though four of the courses provide thorough coverage of a variety of specific topics. Knowledge element two is the only knowledge element that receives thorough coverage. Knowledge element three would receive thorough coverage except for three specific topics that were poorly covered. Even though knowledge element four has an overall rating of significant coverage, a good number of the specific topics are not covered or have only some coverage. One can also see from Table 4.8 that including the elective courses wouldn't improve the overall rating for this competency.

Table 4.8 Coverage of Cost and Economic Analysis

Core Competency Knowledge Elements	Required Courses														Elective Courses																
	General Management							Financial Management																							
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3001	MN 3001	MN3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN4162	MN 4163	Overall FM	Overall Req.	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702
Cost and Economic Analysis					2	2						2			2							2	2	2	2			2	1	2	
1. Fundamental principles of cost and economic analysis and DoD cost guidance and principles.						2						2			2							2	2	2	2			2	1	2	2
2. Fundamentals of benefit analysis.						2						2			2													2		2	1
3. Cost and economic analysis techniques including statistical methods, activity-based costing, and current installation costing.															1							1						2		1	
4. System acquisition and life cycle management policies and procedures.																						1						1			

Assessment: Because of the breadth of topics involved, it would be impractical to incorporate all of the topics that were not covered or poorly covered into a any of the courses currently providing coverage. Incorporating those topics into several

courses may not be possible because they would not fit well with any of the content of the current courses.

i. Business Management Process Improvement

Observations: As table 4.9 shows, two FM courses provide this core competency with some coverage while the GM and Elective courses do not provide any coverage. MN3154 provides significant coverage of every specific topic in knowledge elements two and three, but no coverage of any of the topics in knowledge elements two and four. MN4153 does provide some coverage of knowledge element one, but no coverage of knowledge element four (see pages 101-102 of Appendix D). The scope of the specific topics in knowledge elements one and four that are not covered or have little coverage is fairly narrow and basic, so it would be feasible to include these topics in either MN3154 or MN4153.

Assessment: Because there are a relatively small number of topics that comprise this competency, it would not be difficult to expand the level of coverage of the topics in knowledge elements two and three into either MN3154 or MN4153 to improve the overall coverage of this competency.

Table 4.9 Coverage of Business Management Process Improvement

Core Competency Knowledge Elements	Required Courses														Elective Courses																		
	General Management							Financial Management																									
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3001	MN 3001	MN3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3151	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN4162	MN 4163	Overall FM	Overall R	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702		
Business Management Process Improvement														2						2				2	2								
1. Business Process Reengineering and management of the improvement process.																				2				2	2								
2. Goals and requirements of the Government Performance Results Act of 1994																				2													
3. Relevant circulars, directives, and regulations related to performance of commercial activities including outsourcing and privatization.																																	
4. Miscellaneous funds																																	

j. Accounting

Observations: As Table 4.10 shows this competency gets coverage from a variety of FM and Elective courses, but none of them provide significant or thorough coverage overall. The first knowledge element is covered predominantly by MN3154, which thoroughly covers almost half of the 21 topics, but does not cover the rest of them at all. MN3172 provides some coverage to knowledge element one (see pages 104-106 of Appendix D). Knowledge elements two and three have the least coverage by the FM courses, but significantly better coverage by an Elective course, MN4159. Knowledge element four has significant coverage by MN3154 and some coverage provided by MN3172. The last two knowledge elements already receive significant coverage with many of the specific topics receiving thorough coverage. Only five topics in knowledge element five and one topic in knowledge element six need additional coverage.

Table 4.10 Coverage of Accounting

Core Competency Knowledge Elements	Required Courses														Elective Courses																
	General Management							Financial Management																							
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3001	MN 3001	MN3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN4162	MN 4163	Overall FM	Overall Re	MN 4152	MN 4159	MN 4302	MN 4305	MN 3156	OA 4702
Accounting													1	2		2		1						2	2		2				1
1. Summarize Laws and regulations impacting DoD accounting and finance practices.													1	2		2		1						2	2		2				
2. Federal Accounting Standards and Generally Accepted Accounting Principles.													1	1				1						1	1						
3. Basic federal financial statements including U.S. Consolidated Financial Statements.													1											1	1						
4. Role of key governmental organizations impacting DoD accounting.													1			2		1									1				1
5. Types and use of Government Funds and DoD Fund Categories.													1			2		2									1				2
6. Federal Accounting Structure													1																		

Assessment: It would be possible to incorporate the currently uncovered topics from knowledge element one into the MN3154 curriculum as they are very specific and related to the material already covered in the course. The specific topics in knowledge elements two and three could be incorporated into the MN2150 curriculum,

but this may not be appropriate for that class as it is a basic accounting course and would not normally cover those specific topics. Increasing the coverage of these topics into the MN4159 curriculum may be more appropriate, but since this is an elective course, it is unlikely that every student will take that course and therefore some will miss out on the material. Improving the level of coverage of the specific topics in knowledge element four to achieve thorough coverage of the material would not be difficult. Including the few topics not currently covered in knowledge elements five and six into either MN3154 or MN3172 can also be done with minimal effort. This would increase the overall rating to of the last two knowledge elements to “thorough coverage.”

k. Finance

Observations: This competency was the only one that received an overall rating of little coverage. As can be seen in Table 4.11, two FM courses cover four of the knowledge elements a little and there is no coverage of the other two knowledge elements by any course. Only eight of the more than sixty specific topics are covered by both courses combined (See pages 106-108 of Appendix D).

Table 4.11 Coverage of Finance

Core Competency Knowledge Elements	Required Courses														Elective Courses																				
	General Management							Financial Management																											
	MA 2300	MN 0123	IS 2010	IS 3186	OS 3006	OS 3001	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3164	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	Overall Re	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702				
Finance															1				1						1	1									
1. Focus of DoD Finance including laws and regulations applicable to payment authorization, computation and certification.															1											1	1								
2. Disbursing functions and operations.															1											1	1								
3. Aspects of safeguarding of assets including Internal controls, debt management, and currency control in disbursing office operations.																			1							1	1								
4. Certifying policies																																			
5. Payments for Contractors															1																				
6. Payments for travel entitlements																																			

Assessment: It would be difficult to incorporate all of these topics into an existing course or courses because the large number of the topics to be covered would

necessitate a significant change to the existing curriculum, and the nature and scope of many of them would not easily fit into any current FM course.

I. Auditing

Observations: As Table 4.12 shows, the last competency has significant coverage from two FM courses, MN3154 and MN 4151. The first knowledge element has thorough coverage of every specific topic from MN4151 and significant coverage of every topic from MN 3154 (see pages 109-110 of Appendix D). The second knowledge element only has some to thorough coverage of more than half of its specific topics by MN4151, and the remaining topics could be incorporated into the course curriculum without too much difficulty. MN3154 provides little coverage of the second knowledge element and consequently would be more difficult to modify (see pages 109-110 of Appendix D). The third knowledge element has some to thorough coverage of nearly all of its specific topics by both MN3154 and MN4151.

Assessment: Either MN3154 or MN4151 could be easily modified to improve the level of coverage of those topics that are not thoroughly covered, but inasmuch as MN4151 is a Control and Auditing course, it would make sense to modify that curriculum before modifying MN3154.

Table 4.12 Coverage of Auditing

Core Competency Knowledge Elements	Required Courses													Elective Courses																		
	General Management						Financial Management																									
	MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3001	MN 3001	MN3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN4162	MN 4163	Overall FM	Overall R	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702	
Auditing																																
1. The Purpose of Auditing and Government Audit Standards.															2																	
2. DoD Audit Functions and Standards and internal audit groups within the DoD.														1				2								2	2					
3. Types of Government audits, the audit process, and requirements particular to DoD.														2																		

D. SUMMARY

This chapter described the methodology used in developing and conducting the faculty survey that was used to assess how well the FM curriculum covers the CDFM

knowledge requirements, and the methodology used to analyze the results of the survey. A summary and detailed analyses of the survey results were presented. The findings from this chapter will be used to develop conclusions about the research conducted and to develop potential options NPS may wish to consider implementing to better prepare FM graduates to take the CDFM exam. The results will also be used in develop a guide to aid students in preparing for the exam.

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V. CONCLUSIONS, OPTIONS, AND RECOMMENDATIONS

A. INTRODUCTION

This chapter presents conclusions drawn from the research performed to assess how well the NPS Financial Management Curriculum covers the body of knowledge that a person needs to know to become a Certified Defense Financial Manager (CDFM). Various options available to NPS to better prepare its graduating students to pass the CDFM certification exam and obtain certification as a Certified Defense Financial Manager are also discussed. Finally, the author's recommendations for further actions based upon this body of work are presented.

B. CONCLUSIONS

The following conclusions are presented in support of this thesis. They are based upon the analysis of the faculty survey results presented in Chapter IV and upon the author's personal experience as a student in the Financial Management program. While there are many conclusions that can be drawn from the data, the conclusions presented below are believed to be the most significant for the purposes of this thesis.

1. Coverage of CDFM Knowledge Requirements

Based upon the analysis of the data presented in Chapter IV, the current NPS Financial Management curriculum does not provide sufficient coverage of the Certified Defense Financial Management (CDFM) knowledge requirements to fully prepare a graduating student to pass the CDFM exam.

This conclusion is supported by the summary findings in Chapter IV that show the number of core competencies and the percentage of knowledge elements and specific topics that receive less than thorough or significant coverage. Given that the NPS curriculum is designed to satisfy a set of competencies developed to meet the higher educational needs of the Navy and the standards required by accrediting bodies, one would not expect the curriculum to fully satisfy a different set of competencies only recently articulated by the American Society of Military Comptrollers. While there is the opportunity to increase the level of coverage of the CDFM knowledge requirements significantly with relatively minor changes to the existing curriculum, complete coverage

of the CDFM knowledge requirements within the current course structure would require a significant modification to existing courses. This issue will be discussed in more detail below.

2. Course Contribution by Category

The Financial Management core courses provide the majority of the coverage of the CDFM knowledge requirements, with the Elective courses providing some to thorough coverage of topics in six of the core competencies, and the General Management courses contributing very little coverage overall.

This conclusion is supported in the summary findings in Chapter IV, which show that the Financial Management courses provide significant to thorough coverage of approximately 60% of the CDFM knowledge elements and specific topics, whereas the General Management courses provide no coverage of approximately 87% of the knowledge elements and specific topics. The detailed findings also support this conclusion in that they show the Elective courses contributed in various degrees to six core competencies, providing significant to thorough coverage to a number of topics and knowledge elements. This conclusion is not altogether unexpected when one considers that the General Management courses are designed to provide a basic knowledge base on which the Financial Management and Elective Courses can build, and that the scope of much of the CDFM knowledge requirements is beyond the basic management level. The level of coverage provided by the General Management, Financial Management, and Elective courses is an important aspect when considering whether or not modifying the existing curriculum to incorporate more of the CDFM knowledge requirements is practical.

3. Modifying the Existing Curriculum

It would not be practical nor beneficial to modify the existing Financial Management curriculum courses to incorporate all of the Certified Defense Financial Management (CDFM) knowledge requirements.

This conclusion is supported by the summary and detailed data in Chapter IV and by the author's own experience as a student in the Financial Management curriculum. The summary and detailed analyses in Chapter IV show that approximately 45% of the specific topics, about 330 topics, receive some to no coverage by the General or Financial

Management courses. To provide thorough coverage of the CDFM knowledge requirements, these 330 topics would need to be added into the existing courses. Additionally, coverage of the 12% of topics that receive significant coverage would have to be increased as well. While the latter of these courses of action may not be difficult to accomplish, combining this with adding the 330 topics to the existing courses would not be a reasonable course of action for several reasons. First, there is insufficient room in the current courses to add this volume of material. Inasmuch as the majority of the CDFM knowledge requirements are covered in the Financial Management core courses, it would make sense that these courses would be the best candidates for adding the additional material. To do so would likely require that some material currently covered be deleted from the courses. Based upon the author's experience, this action would reduce the current quality of the courses. Second, removing content from the current courses could have a deleterious effect on the accreditation of the Masters of Science degree program and therefore would not be advantageous for the school to consider. Third, as discussed in Chapter IV, many of the topics that would need to be added would not "fit" well into any of the existing course curriculums which emphasize graduate education. For all of these reasons, it would be impractical to consider modifying the existing program to include all of the CDFM knowledge requirements.

C. OPTIONS

With the ultimate goal of better preparing Financial Management students to obtain certification as a Defense Financial Manager, ostensibly by providing them the resources necessary to learn the CDFM body of knowledge and pass the CDFM examination, NPS has a several options available. These options are grouped into two main categories and are discussed below.

1. Accommodate Student Self-Study

NPS has the ability to accommodating the opportunities for self-study for those students who choose to pursue certification. This option has several aspects to it, which are discussed in more detail below.

a. Provide Self-study Resources

NPS could take a proactive role in providing self-study resources for students wishing to pursue certification. These resources could include a self-study reference guide, a website dedicated to providing CDFM training and educational materials, or a set of library resources reserved specifically for those students pursuing certification. To this end, one of the products of this thesis is a self-study reference guide that was developed, based upon the results of this thesis research, to aid students in preparing for the exam. This guide is intended to be a stand-alone document that is available to any student who is pursuing a self-study program. This guide is included as Appendix E and will be made available to the Financial Management Academic Associate for distribution.

b. Directed Study Program

Enabling students to study for the CDFM exam in a directed study program is another way NPS could support an individual's effort to obtain certification. A self-study program could be structured in such a way as to ensure that the student learns the requisite body of knowledge. The Enhanced Defense Financial Management Training Program could be the basis for structuring a self-study course.

c. TAD Funding for Training

Providing TAD funding for students to take the Enhanced Defense Financial Management Training Program is another way NPS could accommodate students pursuing certification. This option may be more difficult to implement due to constraining factors such as availability of funding and the need to accommodate the student's absence while taking the training program. Nonetheless, this option deserves consideration before being summarily dismissed.

Each of the options discussed above could be implemented individually or in tandem. These options have the benefit of supporting a student's efforts to obtain certification without causing major impacts on the current Financial Management curriculum, and provide flexibility to NPS in controlling costs by providing the resources only to those students who wish to pursue certification.

2. Provide Instruction

Providing instruction of the CDFM knowledge requirements is the most proactive option available to NPS to prepare students for certification. Ways in which the instruction could be provided and their benefits and drawbacks are discussed below.

a. Modify Existing Courses

As was previously concluded, modifying the existing curriculum to cover all of the CDFM knowledge requirements is not practical. However, there are some topics that can be covered in more detail or added to the existing curriculum that would provide added benefit to the students and improve the overall quality of the courses. The drawback to this option is the effort required to identify those topics to add or increase the coverage of, and then modify the curriculum to include them. The results of this thesis provide a solid body of data to identify which topics are not covered or need additional study, but making recommendations as to which courses to modify is beyond the scope of this thesis. Even though exercising this option will not provide coverage of all of the topics, the students would benefit to the degree that any additional material is covered.

b. Scheduling Outside Instruction

It is possible that NPS could partner with the American Society of Military Comptrollers (ASMC) and arrange to have the Enhanced Defense Financial Management Training Program taught at NPS on a regular basis. The benefit to this is that all students would be provided the opportunity to take the course at no cost to them while here at NPS. This option has several drawbacks though. First, scheduling the class at the appropriate time of the academic year may be difficult. Second, the course is a five-day course requiring eight hours of instruction each day. To avoid conflicts with a student's normal class schedule, arrangements would have to be made to reschedule the student's normal classes and make up the work missed during that week. Given the rigorous schedule of the current FM curriculum, many students may opt not to participate in the Enhanced Defense Financial Management Training Program, thus defeating the purpose of bringing that class to NPS to begin with.

c. New Course Offering

Developing a new course that is designed to cover all of the CDFM knowledge requirements is another option that would enable NPS to better prepare students for certification. There are several benefits to this option. First, all students would benefit by having the opportunity to take the course as part of their tenure at NPS. Because the course would be an established part of the FM curriculum, either as a required or elective course, the scheduling conflicts associated with the previous option could be avoided. Second, offering such a course as part of the regular course schedule could actually encourage enrollment by students and increase the level of student interest in obtaining certification as a Defense Financial Manager. By enabling students to take the course as part of their regular schedule, students would not have to devote additional time to a self-study program or taking the Enhanced Defense Financial Management Training Program at a remote site. Third, by offering the course in the last two quarters of a student's schedule, students would be well prepared to take the CDFM certification exam just prior to or upon graduation. Lastly, as an established course within the Graduate School of Business and Public Policy, students outside of the Masters of Science (MS) in Management Degree program who wish to pursue certification as a Defense Financial Manager could also take the course in preparation for the CDFM exam. This could be a significant benefit due to the current initiative underway to develop a new Masters of Business Administration (MBA) Degree program within the Graduate School of Business and Public Policy. With this course being made available to both degree programs, MBA students would have the same opportunity as MS students to pursue Defense Financial Manager certification.

In a larger context, another benefit of developing such a course is that NPS could then market it to financial managers in the DoD who are interested in taking such a course prior to sitting for the CDFM certification exam. This course could be given in a compressed format, the same way the Practical Comptrollership Course is currently given, and offered periodically throughout the year to DoD personnel. With the increased emphasis being placed on the DoD for financial manager certification, and the potential customer base of 30,000 DoD financial managers, NPS could provide a valuable service to the larger DoD financial management community by providing this service.

As mentioned in Chapter II, NPS is currently developing and beta testing just such a course. It is a four-credit course that closely mirrors the Enhanced Defense

Financial Management Training Program course. The author's experience with this course to date has been a positive one. It has proven to be an excellent "capstone" course for the Financial Management curriculum in the sense that it has brought together many of the topics that are covered separately in the various courses into a common frame of reference, thus reinforcing and expanding the author's understanding of the material.

D. RECOMMENDATIONS

The NPS Graduate School of Business and Public Policy is nationally recognized for excellence in education. It is one of only two schools in the country that are currently accredited by both the American Assembly of Collegiate Schools of Business (AACSB) and the National Association of Schools of Public Affairs and Administration (NASPAA). Accordingly, the Financial Management program provides its students with a unique mix of financial management skills and competencies to prepare them for business and financial positions in the DoD. With the advent of the CDFM program sponsored by the ASMC, NPS is in an excellent position to help its students and others in the DoD community to obtain certification as a Defense Financial Manager. In that light, the following recommendations are submitted:

1. NPS should consider establishing the course currently being developed and beta tested as an elective course for students in the Graduate School of Business and Public Policy.
2. NPS should consider where practical and beneficial, incorporating CDFM topics into the current FM course curriculum.
3. NPS should consider ways to accommodate students who want to pursue financial management certification on their own to include:
 - a. Providing applicable reference materials and resources.
 - b. Establishing a standardized self-study program.
 - c. Providing funding for students to take the Enhanced Defense Financial Management Training Program if a similar program is not available at NPS.

4. NPS should consider, studying the feasibility of providing the course currently being developed and beta tested to the larger DoD financial management community as a one week training program.

APPENDIX A. CDFM REFERENCES

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APPENDIX B. CDFM KNOWLEDGE REQUIREMENTS

Appendix B is a comprehensive list of core competencies, knowledge elements, and specific topics that was determined in Chapter II to comprise the CDFM body of knowledge that one needs to know to pass the CDFM certification exam. The data are organized into three modules that correspond to the three exam modules. See Chapter I for a discussion of the CDFM certification exam. The reference numbers listed in the reference column in this appendix refer to the references listed in Appendix A. The reference "SG" refers to the Student Guide for the Enhanced Defense Financial Management Training Program.

Core Competency	Knowledge Elements	Specific Topics	References
Module 1 - Resource Management Environment			
Government Resource Management Environment			
	1. The federal legislative process and its genesis		
		1. Genesis of Legislative Process	1
		2. Legislative Process	1, 9
		a.) Forms of Legislative Business	1, 9
		b.) Origins of Legislation	1, 9
		c.) House and Senate Committees	1, 9
		d.) Conference Committees	1, 9
		e.) How bill becomes law	1, 9
		f.) Presidential action (approve/veto)	1, 9
	2. The authority, responsibility, relationships, and role of the three branches of the federal government		
		1. Legislative Branch	1, 4
		2. Executive Branch	1, 4
		3. Judicial Branch	1, 4
	3. The role of the President, the Congress, DoD, the Office of Management and Budget (OMB), and other federal agencies in the federal budget process		
		1. The Budget Process	1, 2
		a.) Budget Formulation	1, 2
		1.) Major Steps and Timeline in Formulation Phase	1, 2
		2.) Role of DoD and Other Agencies	1, 2, 8
		3.) Role of OMB	1, 2
		4.) Role of President	1, 2
		b.) Budget Review	1
		1.) Role of Congress	1
		2.) Role of DoD and Other Agencies	1, 8
		3.) Role of President	1
		c.) Budget Execution	1, 3
		1.) Role of OMB	1, 3
		2.) Role of DoD and Other Agencies	1, 3, 8
		3.) Budget Execution Terminology	1, 3
		d.) Performance Review and Audit	1
		1.) Role of Congress	1
		2.) Role of DoD and Other Agencies	1, 8
	4. The major components of the federal budget including sources of revenues		
		1. Size of Federal budget vs. GDP	1, 5, 6
		2. Major Sources of Revenue	1, 5, 6
		3. Major Budget Spending Categories	1, 5, 6, 7
		4. Legislation Impacting the Federal Budget	1, 2
		5. Budget Surplus and Debt	5, 6
Defense Resource Management Environment			
	1. The role and organizational structure of the DoD and its impact on the federal budget, and the roles and responsibilities of the senior members in the DoD.		
		1. The mission of the DoD	1
		2. Evolution of the DoD	1
		3. National Defense Budget Authority (BA) by major program	1, 6, 11
		4. National Security Council	1
		5. DoD organizational structure	1, 14, 15, 16,
		a.) Role of SECDEF	1, 14, 15, 16,
		b.) Role of Deputy SECDEF	1, 14, 15, 16,
		c.) Role of Under SECDEF (Comptroller)/CFO	1, 14, 15, 16,
		6. Joint Chiefs of Staff (JCS) organizational structure	1, 15
		a.) Role of Chairman of JCS	1, 15
		b.) Role of Vice Chairman JCS	1, 15
		7. Unified Combatant Commands	1
		a.) Role of CINCs	1
	2. The Planning, Programming, and Budgeting System (PPBS), and the relationships and responsibilities of DoD organizations pertaining to resource management and the national defense strategic planning process.		
		1. PPBS	1, 13
		a. Purpose	1, 13
		b. PPBS roles and responsibilities	1, 13
		1.) JSECDEF	1, 13
		2.) DoD Components	1, 13
		3.) Commanders in Chiefs (CINCs)	1, 13
		c. PPBS Phases and products	1, 13
		1.) Planning	1, 13

Core Competency	Knowledge Elements	Specific Topics	References
		2.) Programming	1, 13
		3.) Budgeting	1, 2, 3, 10, 13
		d. PPBS terminology	1, 2, 13
		2. National Military Strategy	1, 11, 13
		3. Future Years Defense Program (FYDP)	1, 11, 13
	3. Congressional committees and appropriations which are most important to the Defense budget legislative process.		
		1. Federal Budget Process	1, 17
		a.) Budget Resolution Process	1, 17
		1.) House Budget Committee (HBC)	1, 17
		2.) Senate Budget Committee (SBC)	1, 17
		3.) Conference Committee	1, 17
		b.) National Defense Authorization Bill	1, 17
		1.) House Armed Services Committee (HASC)	1, 17
		2.) Senate Armed Services Committee (SASC)	1, 17
		3.) Conference Committee	1, 17
		c.) Appropriation Bills	1, 17
		1.) House Appropriations Committee (HAC)	1, 17
		2.) Senate Appropriations Committee (SAC)	1, 17
		3.) Conference Committee	1, 17
		2. Budget Authority	1, 10
		a.) Availability of Budgetary Resources	1, 10
		1.) Purpose	1, 10
		2.) Amount	1, 10
		3.) Time	1, 10
		b.) Budget Authority and Execution Terminology	1, 10, 17
		3. Resource Management and Contracting	1
		a.) Contracting Process	1
		b.) Prompt Payment Act.	1, 68
	4. Ethical standards related to government service including the rules particular to the DoD		
		1. Core concepts of ethical conduct	1, 12
		2. Fourteen General Principles	1, 12
	5. Basic information technology tools and applications		
		1. The Internet Basics	1, 127
		a.) How it works	1, 127
		b.) Connecting to the Internet	1, 127
		c.) Web pages and understanding web addresses	1, 127
		d.) Searching for information on the web	1, 127
		e.) How email works	1, 127
		f.) Internet terminology	1, 127
		g.) Databases	1, 127
Personnel Management			
	1. Personnel management principles and practices including problem recognition and problem solving.		
		1. Managing Principles and Functions	21
		a. Managerial Decision Making	21, 22
		1.) The decision making process	21, 22
		2.) Decision making tools	21, 22, 23, 26
		a.) Qualitative tools	21, 22, 23, 26
		b.) Quantitative tools	21, 22, 23, 26
		3.) Conditions of risk and uncertainty	21, 22, 23, 26
		b. Elements of Control	21
		1.) Necessary conditions for control	21
		a.) Standards	21
		b.) Informations	21
		c.) Corrective Action	21
		2.) Three types of control methods	21
		a.) Precontrol	21
		b.) Concurrent control	21
		c. Motivation approaches	21
		1.) Economic approach	21
		2.) Social approach	21
		3.) Nature of work approach	21
		d. Managing for Productivity	27
		1.) Definition of productivity	27
		a.) Efficiency	27
		b.) Effectiveness	27
		2.) Productivity bargaining	27
		a.) Integrative bargaining	27
		b.) Pressure bargaining	27
		3.) Measuring productivity	27
		a.) Engineered work standards	27
		b.) Group output trend analysis	27
		c.) Program output analysis	27

Core Competency	Knowledge Elements	Specific Topics	References
	2. Statutory Merit Principles and Prohibited Practices		
		1. Nine Merit Principles	1, 24
		2. Prohibited Practices	1, 24
	3. Processes for hiring, performance appraisal, training, EEO complaints, resolving poor performance, and conflict resolution		
		1. Employment	1
		a. Hiring from outside the organization	1
		b. Filling positions from inside the organization	1
		2. Performance Management	1, 27, 81
		a. Requirements of Civil Service Reform Act of 1978	1, 27
		b. Performance appraisal system components and terminology	1, 27
		c. Employee/Appraisee participation in performance planning	1, 27
		d. Appraisal process	1, 27
		3. Training	1
		a. The Government Training Act	1
		b. The training process	1
		4. Equal Employment Opportunity (EEO) Program	1, 19
		a. Government Policy on EEO	1, 19
		b. EEO Laws	1, 19
		c. EEO Discrimination Complaint Program	1, 19
		1.) Complaint process	1, 19
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		1.) Volume 5-Disbursing Policy and Procedures	1, 85
		2.) Volume 7A-Military Pay Policy and Procedures (Active Duty and Reserve Pay)	1, 86
		3.) Volume 7B-Military Pay Policy and Procedures (Retired Pay)	1,
		4.) Volume 8-Civilian Pay Policy and Procedures	1, 121
		5.) Volume 9-Travel Policy and Procedures	1, 122
		6.) Volume 10-Contract Payment Policy and Procedures	1, 123
	2. Disbursing functions and operations.		
		1. Disbursing office functions	1, 85, 108
		a. Paying and collecting	1, 85, 108
		b. Record maintenance	1, 85, 108

Core Competency	Knowledge Elements	Specific Topics	References
		c. Electronic commerce	1, 85, 108
		1.) Electronic Data Interchange (EDI)	1, 85, 108
		2.) Electronic Funds Transfer (EFT)	1, 85, 108
		d. Reporting	1, 85, 108
		1.) Daily Statement of Accountability (DD 2657)	1, 85, 108
		2.) Statement of Accountability (SF 1219)	1, 85, 108
		3.) Coucher Control Log (DD 2659)	1, 85, 108
		4.) Deposit Ticket (SF 215)	1, 85, 108
		5.) Cash-Link	1, 85, 108
		e. Payment Systems	1, 85, 108
		1.) Government On-Line Accounting Link System (GOALS)	1, 85, 108
		2.) On-Line Payment and Collection (OPAC)	1, 85, 108
	3. Aspects of safeguarding of assets including internal controls, debt management, and currency control in disbursing office operations.		
		1. Internal Controls	1
		a. Separate and secure storage	1
		b. Inspection of the security	1
		c. System access	1
		2. Debt management	1
		a. Requirements of Debt Collection Improvement Act of 1996	1
		b. Debt collection procedures	1
		1.) Debt owed by current military or civilian employee	1
		2.) Debt owed by former military or civilian employee	1
		3.) Debt owed by a contractor	1
		3. Operational considerations	1
		a. Advance decisions	1
		b. Disbursing Office accounts	1
		1.) Out-of Balance	1
		2.) Check Issue Overdraft	1
		3.) Check Underdraft	1
		c. Delivery of payments	1
		1.) Undeliverable checks	1
		2.) Reporting of undeliverable checks	1
		3.) Payment of old checks	1
	4. Certifying policies		
		1. Certifying Officer	1
		2. Certification payment responsibilities	1
		a. Accountable officials	1
		b. Certifying officers	1
		c. Paying officers	1
		3. Certifying military pay entitlements	1, 88
		a. Calculation of pay	1, 88
		b. Special pay	1, 88
		c. Allowances	1, 88
		d. Allotments	1, 88
		4. Certifying civilian pay entitlements	1, 121
		a. Certification of time and attendance	1, 121
		b. Internal controls for civilian pay	1, 121
		c. Establishment and control of pay records	1, 121
		d. Reconciliation of civilian employee pay records	1, 121
		e.) Deductions for federal income tax withholding	1, 121
		f. Special pay	1
	5. Payments for Contractors		
		1. Payments for contractors	1, 70, 123
		a. Advance payment to contractors	1, 70, 108, 123
		b. Payment package	1, 70, 123
		c. Special conditions	1, 70, 123
		d. Prompt payment act	1, 70, 123
	6. Payments for travel entitlements		
		1. Payments for travel entitlements	1, 124
		a. Travel orders/authorization	1, 124
		b. Travel cards and travelers check programs	1, 124
		c. Travel claims	1, 124
		d. Permanent change of station travel	1, 124
Auditing	1. The Purpose of Auditing and Government Audit Standards.		
		1. Purpose and benefits of Auditing	1
		2. Government Audit Standards	1, 125
		a. Generally Accepted Government Auditing Standards (GAGAS)	1, 125
		b. Applicability of standards	1, 125
		c. Sources of GAGAS	1, 125

Core Competency	Knowledge Elements	Specific Topics	References
		d. Audit review of internal controls	1, 125
		1.) General Controls	1, 125
		2.) Specific Controls	1, 125
	2. DoD Audit Functions and Standards and internal audit groups within the DoD.		
		1. Role of DoD Inspector General	1, 126
		2. Internal Audit Groups	1, 126
		a. The Army Audit Agency	1, 126
		b. The Naval Audit Service	1, 126
		c. The Air Force Audit Agency	1, 126
		d. The office of Assistant Inspector General for Auditing	1, 126
		3. Contracting for audit services	1, 126
		4. Auditor qualifications	1, 125, 126
		5. Auditor independence	1, 125, 126
	3. Types of Government audits, the audit process, and requirements particular to DoD.		
		1. Characteristics of audits	1
		2. Types of audits	1, 125, 126
		a. Financial audits	1, 125, 126
		b. Performance audits	1, 125, 126
		c. Contract audits	1, 125, 126
		d. Computer processed data audits	1, 125, 126
		3. Services other than audits	1, 125, 126
		3. Audit review process	1, 125, 126
		a. Overall plan	1, 125, 126
		1.) Identify regulatory and statutory requirements	1, 125, 126
		2.) Identify specific concerns of management and congress	1, 125, 126
		3.) Identify high-risk areas	1, 125, 126
		b. Coordination	1, 125, 126
		c. Audit phases objectives	1, 125, 126
		1.) Planning Phase	1, 125, 126
		2.) Review Phase	1, 125, 126
		3.) Report phase	1, 125, 126
		a.) Purpose and benefits of report	1, 125, 126
		d. Quality Control	1, 125, 126
Fiscal Law			
	1. Anti-deficiency act as applied to appropriations including actions that could result in violations and penalties applicable under law.		
		1. Anti-Deficiency Act- Principle provisions	1, 46, 54, 128
		a. Principle Provisions	1, 46, 54, 128
		1.) U.S. Code, Title 31 Section 1341 violations	1, 46, 54, 128
		2.) U.S. Code, Title 31 Section 1571 violations	1, 46, 54, 128
		b. Sanctions	1, 46, 50, 54, 128
		c. Reporting requirements	1, 46, 54, 128
		1.) Report to the President	1, 46, 54, 128
		2.) Report to Congress	1, 46, 54, 128
		3.) Timing of reports by agency heads	1, 46, 54, 128
		d. Types of violations	1, 46, 54, 128
	2. Intent and requirements for using Defense Working Capital Funds		
		1. Goals of DWCF	1, 77
		2. Authority and Appropriations for DWCF	1, 77
		3. Criteria for using DWCF	1, 77
		4. Evolution of WCF	1, 77
		5. Revenues and incurring obligations	1, 77
		6. Apportionment and reapportionment schedules	1, 77
		7. Unobligated balances	1, 77
		8. Obligations and apportionments	1, 77

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APPENDIX C. NPS COURSE DESCRIPTIONS

General Management Courses:

MA2300 Mathematics for Management

Mathematical basis for modern managerial tools and techniques. Elements of functions and algebra; differential calculus of single and multi-variable functions; integration (and differentiation) of single-variable functions. Applications of the derivative to rates of change, curve sketching, and optimization, including the method of Lagrange multipliers.

MN0123 Computer Skills Development

An introduction to the use and operation of microcomputers including hardware basics, operating system, word processing, spreadsheets and graphics. Emphasis on applications in systems management.

IS2010 Introduction to Information Technology

This course provides an overview of the technology used to implement modern information systems. Extensive use of hands-on laboratories and demonstrations provide students a thorough introduction to microcomputer architecture and design, the Internet and Web page development, local area network (LAN) operation and administration, databases, management information systems, and computer security. The strong emphasis on hardware and software technical issues in this course establishes the foundation necessary for studying IT management issues during the follow-on course, IS3185.

IS3185 Management of Information Technology

This course focuses on management issues in the implementation and use of information systems to support the missions of military organizations. It provides management students with a framework to comprehend the organizational impacts of information technology (IT) that will serve them throughout their careers despite rapid and continuous changes in hardware and software. They will know (1) what an IT system can do for their organization, (2) potential problems raised by IT and (3) how to work effectively with chief information officers and IT technical professionals. Topics include IT opportunities and strategies, IT implementation issues, IT staffing and the transformational effects of IT upon an organization's strategy, culture and operations.

OS3006 Operations Research for Management

A survey of problem solving techniques for operations research. Topics include decision theory, linear programming, models, project scheduling, inventory, queuing and simulation.

OS3101 Statistical Analysis for Management

A specialized course covering the basic methods of probability and statistics with emphasis on managerial applications. The course includes applications of probability models, statistical inference and regression analysis. Computation for these applications are carried out on a computer, using commercial software packages. Topics in probability include the binomial, geometric, Poisson and normal distributions, risk and expected value. Parametric statistical techniques include significance testing and confidence intervals, together with point estimation of model parameters. Regression analysis includes simple linear regression and multiple regression, with estimation of parameters and tests of hypothesis and confidence intervals for regression coefficients and the variance of the error term.

MN3001 Economics for Defense Managers

This course develops the fundamental tools of microeconomics and macroeconomics and applies them to topics in the management and allocation of defense resources. Although fundamental economic principles are covered, the course stresses the applications of economic theory to defense issues and policies. Topics covered include: macroeconomic aspects of defense spending and budgeting; defense production functions; allocative efficiency in defense labor and capital markets; international economics and national security; and comparative systems.

MN3105 Organization and Management

This course gives students knowledge of key concepts from management theory, organization theory, organizational behavior and organizational development. Special emphasis is given to the ability to apply these concepts in an integrated fashion to management situations in DoD/DoN. Towards that end, the course makes extensive use of multiple theoretical frames, open-systems models, and DoD/DoN case studies.

MN3140 Microeconomic Theory

This course reviews traditional microeconomics concepts, including demand, cost, perfect and imperfect competition, public goods, externalities, and factor markets. Emphasis focuses on several themes underlying these concepts, including optimization, incentives, efficiency, problem solving and strategic thinking. Defense applications are stressed.

MN3333 Managerial Communications Skills in the DOD Environment

This course provides DoD and International military officers and civilians with the communication theory, strategies, and skills needed to manage and lead in the dynamic DoD environment. Instruction focuses on strategic media choice, writing informative and persuasive documents, giving succinct, easy-to-understand briefings, managing team communication processes, developing associates' communication competencies through various feedback roles and strategies, and listening analytically and empathetically. DoD cases, scenarios, and readings are used to analyze complex communication situations unique to the military.

MN4105 Strategic Management

Study and analysis of complex managerial situations requiring comprehensive integrated decision making. Topics include operational and strategic planning, policy formulation, executive control, environmental adaptation and management of change. Case studies in both the public and private sectors are used. Particular attention is given to strategic management in the military context, and in the DoD, DoN organizations. PREREQUISITE: Open only to students in the final quarter of a Systems Management curriculum, or Information Technology Management, or permission of instructor.

NW3230 Strategy and Policy

This course is a tailored version of the Strategy and Policy (S&P) course taught at the NWC in Newport, RI. It has been revised to focus on the critique of strategies and their utility in achieving a nation's policy objectives. The course utilizes case studies derived from the American experience. This course is mandatory for all DON students, and it will be taught by NWC faculty during the normal academic day.

Financial Management Courses

MN2150 Financial Accounting

Study of basic accounting models concepts and standards underlying financial report. Emphasis on the reporting of an organization's results of operations, financial position and cash flows. Specific topics include the accounting cycle, asset and liability valuation, income measurement, capital structure, and

financial statement analysis. Includes discussion of financial reporting for Federal Government organizations.

MN3154 Financial Management in the Armed Forces

This course focuses on financial management practices and concepts in the DoD, with emphasis on the Department of the Navy. Topics include appropriations and legal aspects of appropriations; the Future Years Defense Program; the Planning, Programming and Budgeting System (PPBS); budget formulation, review, enactment and execution cycle; federal budget legislation and DoD regulations; ethics in government; management controls; and, DoD accounting terminology and accounting systems. Current financial management issues such as working capital funds, DFAS, non-appropriated funds and unit cost are reviewed. Exercises and case studies are used to develop the students' ability to apply financial management concepts to real life situations.

MN3161 Management Accounting

Introduction to the concepts and systems of cost determination. Attention is given to applying cost concepts and techniques of analysis in a military environment and relating them to Working Capital Funds, pertinent OMB Circulars and DoD Instruction on Economic Analysis. Topics covered include job costing systems, overhead accounting and allocation, standard costs for control, flexible budgeting, cost-volume-profit analysis, performance analysis, cost analysis for structured and unstructured decision-making, and long-term investment analysis.

MN3172 Public Policy and Budgeting

This course analyzes federal policy-making with emphasis on resource decision making for national defense. The roles of principal budget process participants are examined. Executive and congressional budget processes are assessed to indicate how national security policy is resourced and implemented through the budget process. Spending for national security policy is tracked from budget submission through resolution, authorization and appropriation. Budget formulation, negotiation, and execution strategies are evaluated to indicate the dynamics of executive-legislative competition over resource allocation priorities. Students examine the DoN/DoD PPB process as it relates to budget planning and execution.

MN3331 Principles of Systems Acquisition and Program Management

This course provides the student with an understanding of the underlying concepts, fundamentals and philosophies of the systems acquisition process and the practical application of program management methods within this process. The course examines management characteristics and competencies, control policies and techniques, systems analysis methods, and functional area concerns. Techniques for interpersonal relationships will be examined in team exercise settings. Topics include the evolution and current state of systems acquisition management; the system acquisition life cycle; user-producer acquisition management disciplines and activities; and program planning, organizing, staffing, directing and controlling. Case studies are used to analyze various acquisition issues.

MN4151 Internal Control and Auditing

Study of the objectives and activities of internal control. Overview of audits of financial reports and records and of government operations, in accordance with Government Auditing Standards. Specific topics include the design and evaluation of internal controls, auditing standards, audit reports, audit evidence, and audit tests.

MN4153 Seminar in Financial Management

Study of a variety of emerging financial management topics that impact on the Navy's planning, programming, budgeting and operations. It includes discussion of new Congressional, Department of

Defense and Department of the Navy financial management policies. Case studies emphasize current issues affecting the Navy and other DoD organizations.

MN4161 Management Control Systems

Study of the design, implementation, and evaluation of management planning and control systems in Navy and Defense organizations with comparisons to large, complex private sector organizations. Specific topics include the need for planning and control, strategic planning, the resource allocation process, organization of the management control function, measurement of inputs and outputs, pricing government services programming, budgeting, reporting, and performance evaluation.

MN4162 Strategic Cost Management

Examines cost accounting and cost management concepts and policies used to identify, measure, and report cost information for strategic decision making and long-term resource allocation. Includes the study of alternative cost allocation systems, activity-based management, benchmarking, target costing, and value chain analysis. Also covered are the Cost Accounting Standards used by the federal government for negotiated procurement contracts.

MN4163 Decision, Cost and Policy Analysis

Study of sophisticated analytical methods for various cost, policy and decision scenarios in DoD and other organizations. Emphasis is on developing quantitative methods as decision support tools, with available computer software as computational aids. Covered are pertinent segments of DoD instructions in economic analysis, program evaluation, and risk management, relevant quantitative techniques for decision analysis, the conditions for successful applications, data needed for applications, and the use of computational aids for problem solving.

MN0810 Thesis Research

Every student conducting thesis research will enroll in this course.

Elective Courses

MN 4122 Planning and Control: Measurement and Evaluation

Theory and techniques of the managerial functions of planning and control in both governmental and private sector organizations. Emphasis is placed on the effects of the planning and control structure on the behavior of human components of the system. Examples are drawn extensively from the governmental sector. Topics include the problems associated with the utilization of surrogates for measurement purposes, the analysis of the influence of assumptions, values, and objectives on the planning and control process, budgeting, forecasting, performance evaluation, and the reward structure.

MN4152 Corporate Financial Management

This course provides an overview of the basic concepts and principles of financial management in the private sector and its implication on government contracting. It is designed to provide insights into the financial decision making process encountered by commercial enterprises, with particular emphasis on risk analysis, valuation models, cost of capital determination, optimal capital structure, short term financing, long term financing, and working capital management.

MN4159 Financial Reporting and Analysis

Advanced study of accounting concepts underlying published financial reports. Emphasis is placed on the evaluation of financial reporting approaches and measures from the perspective of managers and users of financial information. Topics include accounting policies and standards; asset and liability recognition, and

valuation; income measurement; and the use of financial report information in financial analysis. Course project investigating financial reporting in DoD settings.

MN4302 Defense Resource Policy and Management

National defense and Navy policy formulation and execution and its impact on the defense budget. Analysis of contemporary defense policy and management issues and their resource implications. Relationships between DoD, the Navy and other military departments, Congress, and the defense industry in the policy and resource decision making process. Textbook written specifically for this course by instructor: Reinventing the Pentagon.

MN4305 Defense Technology Policy

This seminar examines the problems of identifying and acquiring U.S. military technology in the post-cold war environment. Readings in the literature of defense technology, bureaucracy and economics explore changes in the defense technology base, developments in DoD technology policy and organization, including the defense laboratories, defense cooperation, foreign dependence, technology security, shifts in U.S. economic policy and assets and the evolution of global technological capabilities, especially in the Asia-Pacific region.

OA4702 Cost Estimation

Advanced study in the methods and practice of systems analysis with emphasis on cost analysis; cost models and methods for total program structures and single projects; relationship of effectiveness models and measures to cost analysis; public capital budgeting of interrelated projects; detailed examples from current federal practices.

MN3155 Financial Management for Acquisition Managers

This course is a study of financial management practices and issues associated with the Department of Defense (DoD) acquisition programs. The course has emphasis on (1) the DoD resource management process flow from initiation of a new acquisition program through execution of appropriated funds (procurement and research & development accounts) for that program, (2) the congressional approval and review process unique to Defense procurement, and (3) cost estimation, analysis and evaluation as tools for sound acquisition management.

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APPENDIX D. FACULTY SURVEY RESULTS

Appendix D presents the summary results from the 23 separate faculty surveys conducted for the purpose of determining the level of coverage of the CDMF knowledge requirements by the NPS Financial Management Curriculum. The results are presented using the rating scale and formatting scheme shown below.

<u>Rating</u>	<u>Description</u>	<u>Cell Format</u>
0	No Coverage	<input type="checkbox"/>
1	Little Coverage	<input type="checkbox" value="1"/>
2	Some Coverage	<input type="checkbox" value="2"/>
3	Significant Coverage	<input type="checkbox" value="3"/>
4	Thorough Coverage	<input type="checkbox" value="4"/>

The descriptions used in this rating scale are discussed in more detail in Chapter IV. Also, Chapter IV provides a thorough discussion of the methodology used to develop and conduct the surveys.

Core Competency	Knowledge Elements	Specific Topics	Required Courses																Elective Courses										
			General Management										Financial Management						Overall Req'd					Overall FM					
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall Req'd	MN 4152	MN 4159	MN 4302

Module 1 - Resource Management Environment

Government Resource Management Environment	<p>1. The federal legislative process and its genesis</p> <p>2. The authority, responsibility, relationships, and role of the three branches of the federal government</p> <p>3. The role of the President, the Congress, DoD, the Office of Management and Budget (OMB), and other federal agencies in the federal budget process</p>	<p>1. Genesis of Legislative Process</p> <p>2. Legislative Process</p> <p>a.) Forms of Legislative Business</p> <p>b.) Origins of Legislation</p> <p>c.) House and Senate Committees</p> <p>d.) Conference Committees</p> <p>e.) How a bill becomes law</p> <p>f.) Presidential action</p>	<p>MN 3154 2</p> <p>MN 3161 2</p> <p>MN 3172 2</p> <p>MN 3331 2</p> <p>MN 4151 2</p> <p>MN 4153 2</p> <p>MN 4161 2</p> <p>MN 4162 2</p> <p>MN 4163 2</p> <p>Overall FM 3</p>	<p>MN 4152 2</p> <p>MN 4159 2</p> <p>MN 4302 2</p> <p>MN 4305 2</p> <p>MN 3155 2</p> <p>OA 4702 2</p>
	<p>1. Legislative Branch</p> <p>2. Executive Branch</p> <p>3. Judicial Branch</p>	<p>1. Legislative Process</p> <p>2. Executive Branch</p> <p>3. Judicial Branch</p>	<p>MN 3154 1</p> <p>MN 3161 1</p> <p>MN 3172 1</p> <p>MN 3331 1</p> <p>MN 4151 1</p> <p>MN 4153 1</p> <p>MN 4161 1</p> <p>MN 4162 1</p> <p>MN 4163 1</p> <p>Overall FM 3</p>	<p>MN 4152 1</p> <p>MN 4159 1</p> <p>MN 4302 1</p> <p>MN 4305 1</p> <p>MN 3155 1</p> <p>OA 4702 1</p>
	<p>1. The Budget Process</p> <p>a.) Budget Formulation</p> <p>1.) Major Steps and Timeline in Formulation Phase</p> <p>2.) Role of DoD and Other Agencies</p> <p>3.) Role of OMB</p> <p>4.) Role of President</p> <p>b.) Budget Review</p> <p>1.) Role of Congress</p> <p>2.) Role of DoD and Other Agencies</p> <p>3.) Role of President</p> <p>c.) Budget Execution</p> <p>1.) Role of OMB</p> <p>2.) Role of DoD and Other Agencies</p> <p>3.) Budget Execution Terminology</p> <p>d.) Performance Review and Audit</p> <p>1.) Role of Congress</p> <p>2.) Role of DoD and Other Agencies</p>	<p>1. The Budget Process</p> <p>a.) Budget Formulation</p> <p>1.) Major Steps and Timeline in Formulation Phase</p> <p>2.) Role of DoD and Other Agencies</p> <p>3.) Role of OMB</p> <p>4.) Role of President</p> <p>b.) Budget Review</p> <p>1.) Role of Congress</p> <p>2.) Role of DoD and Other Agencies</p> <p>3.) Role of President</p> <p>c.) Budget Execution</p> <p>1.) Role of OMB</p> <p>2.) Role of DoD and Other Agencies</p> <p>3.) Budget Execution Terminology</p> <p>d.) Performance Review and Audit</p> <p>1.) Role of Congress</p> <p>2.) Role of DoD and Other Agencies</p>	<p>MN 3154 2</p> <p>MN 3161 2</p> <p>MN 3172 2</p> <p>MN 3331 2</p> <p>MN 4151 2</p> <p>MN 4153 2</p> <p>MN 4161 2</p> <p>MN 4162 2</p> <p>MN 4163 2</p> <p>Overall FM 3</p>	<p>MN 4152 2</p> <p>MN 4159 2</p> <p>MN 4302 2</p> <p>MN 4305 2</p> <p>MN 3155 2</p> <p>OA 4702 2</p>

Core Competency	Knowledge Elements	Specific Topics	Required Courses																Elective Courses											
			General Management								Financial Management								Elective Courses											
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	Overall Req'd.			
<p>4. Generally accepted organization principles and practices including organizations as systems.</p>	<p>1. Establishing organizational goals and plans</p> <p>a. Planning Process</p> <p>b. Organizational goals</p> <p>c. Linking goals and plans</p> <p>d. Management by Objectives</p>	<p>b. Filling positions from inside the organization</p> <p>2. Performance Management</p> <p>a. Requirements of Civil Service Reform Act of 1978</p> <p>b. Performance appraisal system components and terminology</p> <p>c. Employee/Appraiser participation in performance planning</p> <p>d. Appraisal process</p> <p>3. Training</p> <p>a. The Government Training Act</p> <p>b. The training process</p> <p>4. Equal Employment Opportunity (EEO) Program</p> <p>a. Government Policy on EEO</p> <p>b. EEO Laws</p> <p>c. EEO Discrimination Complaint Program</p> <p>d. Complaint process</p> <p>e. Sexual Harassment</p> <p>f. Affirmative Action</p> <p>5. Addressing and Resolving Poor Performance (Civilian employees)</p> <p>a. Executive Order 12871: Labor-Management partnerships</p> <p>b. Steps for correcting poor performance</p> <p>6. Conflict Management</p> <p>a. Causes of conflict</p> <p>b. Five approaches to deal with conflict</p> <p>c. Guiding principles for resolving conflict</p> <p>d. Methods for best solutions to conflict</p>																												

Core Competency	Knowledge Elements	Specific Topics	Required Courses																		Elective Courses															
			General Management													Financial Management					Overall Req'd															
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702					
Management and Internal Controls	<p>1. Purpose and Requirements of the Federal Manager's Financial Integrity Act of 1982 and OMB Circular A-123</p> <p>2. Internal control standards techniques, and documentation required in the DoD's Management Control Program and relevant guidance and regulations.</p>	<p>1. FMFIA</p> <p>a. Purpose</p> <p>b. Requirements</p> <p>1.) OMB</p> <p>2.) Heads of Agencies</p> <p>2. OMB Circular A-123 Management Accountability and Control</p> <p>a. Purpose</p> <p>b. Requirements</p>																																		
Planning, Programming, and Budgeting		<p>1. Management Controls and Standards</p> <p>a. Key Concepts</p> <p>b.) Assessing and Improving Management Controls.</p> <p>c.) Reporting on Management Control</p> <p>1.) Statement of Assurance</p> <p>2.) Report on Material Weaknesses</p> <p>d.) Management Control Terminology</p> <p>2. DoD Management Control Program</p> <p>a. Policy and Responsibilities</p> <p>3. DoD Management Control Procedures</p> <p>b. Policies and responsibilities</p> <p>4. GAO Standards for Internal Control in the Federal Government</p> <p>a. Definition, Objectives, Fundamental Concepts of Internal Control</p> <p>b. Internal Control Standards</p> <p>1.) Control Environment</p> <p>2.) Risk Assessment</p> <p>3.) Control Activities</p> <p>4.) Information and Communications</p> <p>5.) Monitoring</p>																																		
MODULE II - BUDGET AND COST ANALYSIS																																				

Core Competency	Knowledge Elements	Specific Topics	Required Courses																						Elective Courses								
			General Management										Financial Management								Overall Req'd.				Courses								
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702	
	1. DoD Planning, Programming, and Budgeting System (process, terminology, and products) and the role of the key offices in the PPBS process.	<ol style="list-style-type: none"> 1. PPBS <ol style="list-style-type: none"> a. Purpose and Objectives b. Process <ol style="list-style-type: none"> 1.) Planning Phase <ol style="list-style-type: none"> a.) Joint Strategic Planning b.) National Security Strategy c.) National Military Strategy (NMS) d.) Planning phase focus e.) Planning phase process f.) Planning phase product - DPG 2.) Programming Phase <ol style="list-style-type: none"> a.) Purpose b.) POM c.) Integrated Priority Lists (IPLs) d.) Chairman's Program Assessment (CPA) e.) Issue Books f.) DRB Review g.) Program Decision Memorandum (PDM) 3.) Budgeting Phase <ol style="list-style-type: none"> a.) Budget Estimate Submission (BES) <ol style="list-style-type: none"> b.) Budget Review System c.) OSD-OMB Budget Review d.) Resolving Major Budget Issues e.) The Presidents Budget c. Key Officials and their roles. <ol style="list-style-type: none"> 1.) Secretary of Defense 2.) Deputy Secretary of Defense 3.) Joint Chiefs of Staff and Commanders-in-Chief 4.) Vice Chairman JCS 5.) Service Secretaries 6.) Defense Resources Board (DRB) and members. 7.) Under Secretary of Defense (Comptroller) d. PPBS Products (Purpose and Use) (DPG) <ol style="list-style-type: none"> 2.) Program Objective Memorandum (POM) 3.) Issue Books (IB) 																															

Core Competency	Knowledge Elements	Specific Topics	Required Courses												Elective Courses																						
			General Management						Financial Management						Overall Req'd.			Overall Req'd.																			
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702					
Cost and Economic Analysis	<p>1. Fundamental principles of cost and economic analysis and DoD cost guidance and principles.</p>	<p>a. Non Appropriated Funds 1.) Sources, purpose, and use b. Working Capital Funds 1.) Purpose of DWCF 2.) Evolution of Defense Working Capital Fund (DWCF) 3.) Financing of DWCF activities</p> <p>1.) Provisions of the Economy Act. 2.) Types of Reimbursable and Support Agreements a. ISSA b. MOU c. MOA d. Contracts and Leases e. Documentation 3.) Reimbursable costs</p> <p>1. OMB Circular A-76. a. Objectives 2. OMB Circular A-11 a. Procedures for recording refunds 3. Principles of Appropriation Law</p>	2	2																																	
			2																																		
Cost and Economic Analysis	<p>1. Fundamental principles of cost and economic analysis and DoD cost guidance and principles.</p>	<p>a. Definitions 1.) Economic analysis 2.) Cost analysis b. Fundamentals of Economic Analysis 1.) Components of Effective Economic Analysis 2.) Economic analysis limitations 3.) Economic Analysis Processes c. Fundamentals of Cost Analysis 1.) Discounting/Net Present Value Calculations 2.) Payback Period 3.) Break-Even analysis 4.) Return on investment</p> <p>2. Cost guidance and principles a. System affordability</p>	2	2																																	
			2																																		

Core Competency	Knowledge Elements	Specific Topics	Required Courses																							Elective Courses										
			General Management													Financial Management										Overall Req'd										
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702				
		2.) Major Automated Informations System (MAIS) Program 3. DoD Acquisition life-cycle management a. Acquisition Life Cycle 1.) Milestones 2.) Phases b. Life cycle costs (LCC) 1.) Types of cost estimates a.) Program Office Estimate (POE) (CCA) c.) Independent Cost Estimate (ICE) 2.) DoD standardized LCC terms 4. Acquisition Program Elements a. Acquisition Program Baseline (APB) b. Work Breakdown Structure c. Cost Analysis Requirements Description (CARD) d. Cost as Independent Variable (CAIV) 1.) Purpose 2.) CAIV process e. Analysis of Alternatives (AOA) 1.) Purpose 2.) Unit cost reports f. Earned Value Management System (EVMS) 1.) Purpose of EVMS 2.) Contractor requirements 3.) Lower risk programs 4.) Cost, schedule, and performance reports 5.) Contractor cost data report 5. Requirements for Multiyear Procurement (MYP) a. DFARS 217.173 - Multiyear Contract Regulations																																		
Business Management Process Improvement	1. Business Process Reengineering and management of the improvement process.	1. Business Process Reengineering Basics a. Definition of BPR b. BPR Concepts c. Steps in BPR d. BPI Teams e. Benchmarking																																		

Core Competency	Knowledge Elements	Specific Topics	Required Courses														Elective Courses																					
			Required Courses														Elective Courses																					
			General Management							Financial Management							Overall Req'd.					Overall FM																
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	Overall Req'd.	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702						
Core Competency	Knowledge Elements	Specific Topics	1.) Definition and purpose																																			
			2.) Benchmarking steps																																			
			1. GPRA goals																																			
			2. GPRA requirements																																			
Core Competency	Knowledge Elements	Specific Topics	1.) Five year strategic plans																																			
			2.) Annual performance plans and reports																																			
			a. Terms associated with performance measurement																																			
			1. OMB Circular A-76 and DoDI 4100.33, Commercial Activities																																			
Core Competency	Knowledge Elements	Specific Topics	a. Purpose of commercial activities																																			
			b. Definition and categories of inherently governmental functions																																			
			c. Cost competition process																																			
			1.) Announcements and notifications																																			
Core Competency	Knowledge Elements	Specific Topics	2.) Management study and Most Efficient Organization (MEO)																																			
			3.) Performance Work Statement (PWS)																																			
			4.) Cost comparisons																																			
			d. Outsourcing and Privatization																																			
Core Competency	Knowledge Elements	Specific Topics	1. Sources of miscellaneous funds																																			
			a. Agricultural and grazing leases																																			
			b. Recycling																																			
			c. Sale and outlease (60/50 legislation)																																			
Core Competency	Knowledge Elements	Specific Topics	d. Fish and wildlife conservation program																																			
			2. Authority to use miscellaneous funds																																			
			1. Factors determining availability of budgetary resources																																			
			a. Purpose																																			
Core Competency	Knowledge Elements	Specific Topics	b. Amount																																			
			c. Time																																			
			1.) Annual authority																																			
			Fiscal Law																																			

Core Competency	Knowledge Elements	Specific Topics	Required Courses																	Elective Courses											
			General Management												Financial Management					Overall Req'd.	Courses										
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155
Core Competency	Knowledge Elements	Specific Topics	2.) Multiyear authority																												
			3.) No-year authority																												
Core Competency	Knowledge Elements	Specific Topics	2. Life cycle of an appropriation																												
			a. Phase I - Current appropriations																												
Core Competency	Knowledge Elements	Specific Topics	b. Phase II - Expired appropriations																												
			c. Phase III - Cancelled appropriations																												
Core Competency	Knowledge Elements	Specific Topics	3. DoD Appropriation time limits																												
Core Competency	Knowledge Elements	Specific Topics	2. Constitutional and federal agency authorities for expending funds including authorization and appropriation acts, and continuing resolutions																												
Core Competency	Knowledge Elements	Specific Topics	1. Fiscal laws and regulations in federal financial management																												
			a. Principles of Federal Appropriation Law (The Redbook)																												
Core Competency	Knowledge Elements	Specific Topics	b. Congressional Budget Act of 1974																												
			c. Balanced Budget and Emergency Deficit Control Act of 1985																												
Core Competency	Knowledge Elements	Specific Topics	d. Chapters 13 and 15 of U.S.C.																												
			e. Impoundment Control Act of 1974																												
Core Competency	Knowledge Elements	Specific Topics	f. OMB Circular A-34																												
			g. Anti-Deficiency Act																												
Core Competency	Knowledge Elements	Specific Topics	2. Constitutional authority to expend funds																												
			3. Budget Authority																												
Core Competency	Knowledge Elements	Specific Topics	a. Definition and key concepts of Budget Authority (BA)																												
			b. Flow of funds																												
Core Competency	Knowledge Elements	Specific Topics	c. Recovery of prior year obligations																												
			4. Continuing Resolutions																												
Core Competency	Knowledge Elements	Specific Topics	a. Definition and Purpose																												
			5. Fiscal law terminology																												
Core Competency	Knowledge Elements	Specific Topics	1. Transfers																												
			a. Definition and statutory requirements																												
Core Competency	Knowledge Elements	Specific Topics	2. Reprogramming																												
			a. Definition																												
Core Competency	Knowledge Elements	Specific Topics	b. Key concepts																												
			c. Types of reprogramming																												
Core Competency	Knowledge Elements	Specific Topics	1.) Congressional prior approval																												
			2.) Congressional notification reprogramming																												
Core Competency	Knowledge Elements	Specific Topics	3.) Internal reprogramming																												
			4.) Below threshold reprogramming																												
Core Competency	Knowledge Elements	Specific Topics	5.) Omnibus reprogramming																												

Core Competency	Knowledge Elements	Specific Topics	Required Courses																	Elective Courses																
			General Management								Financial Management									Overall Req'd					EA 4702	MN 4752	MN 4152	MN 4159	MN 4302	MN 4305	MN 4355					
			MA 2300	MN 0123	IS 2010	OS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	Overall Req'd	MN 4152	MN 4159	MN 4302	MN 4305	MN 4355	EA 4702				
1. Statements of Federal Financial Accounting Concepts (SFFAC) a. Statements of Federal Financial Accounting Standards (SFFAS) d. Interpreting SFFAS			1														1									1	1									
			1															1									1	1								
			1																1									1	1							
			1																1									1	1							
2. Basic federal financial statements including U.S. Consolidated Financial Statements.		1. Basic Federal Financial Statements a. Balance Sheet b. Statement of Net Cost c. Statement of Changes in Net Position d. Statement of Budgetary Resources e. Statement of Financing	1														1									1	1									
			1															1									1	1								
			1																1									1	1							
			1																1									1	1							
3. Role of key governmental organizations impacting DoD accounting.		1. Government organizations and their roles a. Office of Management and Budget (OMB) b. General Accounting Office (GAO) c. Department of Treasury d. Joint Financial Management Improvement Program (JFMIP) e. Federal Accounting Standards Advisory Board (FASAB) f. Under Secretary of Defense (Comptroller) g. Defense Finance and Accounting Service h. Government Accounting Standards Board	1														1	3	2	1						3	3									
			1															1	3	1	1						3	3								
			1																3	2	2	1						3	3							
			1																3	2	2	1						3	3							
4. Types and use of Government Funds and DoD Fund Categories.		1. Federal Funds a. General Funds b. Special Funds	2														2	2	2	1						2	2									
			2															2	2	1	1						2	2								
			2																2	2	2	1						2	2							
			2																2	2	2	1						2	2							

Core Competency	Knowledge Elements	Specific Topics	Required Courses												Elective Courses																		
			General Management							Financial Management					Overall Req'd																		
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702		
Finance	<p>1. Focus of DoD Finance including laws and regulations applicable to payment authorization, computation and certification.</p>	<p>1. Major focus of finance a. Computing entitlements b. Making Payments c. Communications between financial offices</p>																															

Core Competency	Knowledge Elements	Specific Topics	Required Courses																										Elective Courses									
			General Management														Financial Management												Overall Req'd.									
			MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702						
Core Competency	Knowledge Elements	Specific Topics																																				
Core Competency	Knowledge Elements	Specific Topics																																				
Core Competency	Knowledge Elements	Specific Topics																																				
Core Competency	Knowledge Elements	Specific Topics																																				
Core Competency	Knowledge Elements	Specific Topics																																				
Core Competency	Knowledge Elements	Specific Topics																																				
Core Competency	Knowledge Elements	Specific Topics																																				
Core Competency	Knowledge Elements	Specific Topics																																				

APPENDIX E. STUDENT GUIDE

Appendix E is a student guide that was developed as an aid to students preparing for the CDFM exam. It is a stand-alone document that is based upon the findings of this thesis, and as such, much of the information contained in it is also contained in other parts of this thesis.

**A STUDENT GUIDE TO
PREPARING FOR THE
CERTIFIED DEFENSE FINANCIAL MANAGER
EXAM**

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INTRODUCTION

This guide was developed as a self-study aid for Financial Management students preparing for the Certified Defense Financial Manager (CDFM) examination. The guide identifies the body of knowledge the American Society of Military Comptrollers (ASMC), the exam sponsor, has determined to be requisite for passing the exam. The level of coverage of this body of knowledge by the Naval Postgraduate School Financial Management curriculum is also identified to help students identify those areas where additional study may be needed. A detailed list of references is also provided to aid students in obtaining the necessary study resources.

This guide also presents basic information about the CDFM Program, and the structure and format of the CDFM exam to help students understand the exam process so they can better organize their study plans. Additional sources of information about the CDFM exam and its content are also included.

ABOUT THE CDFM PROGRAM AND EXAM

Recognizing the need to broaden and improve the capabilities of the financial management workforce within the DoD, the ASMC has developed a DoD-unique certification program for financial management personnel called the Certified Defense Financial Management (CDFM) Program. The CDFM program was developed to provide a professionally recognized certification tailored to those competencies unique to the DoD financial management workforce. To obtain certification, a candidate must have the following qualifications:

1. A high school diploma.
2. Completed three years of defense related financial management experience or two years of defense related financial management experience if the candidate holds an Associate, Baccalaureate, or higher degree.
3. Successfully complete the CDFM examination.

The CDFM examination is a computer based, multiple-choice examination divided into three modules that together test one's knowledge of the requisite body of knowledge. The three exam modules are Resource Management Environment, Budget

and Cost Analysis, and Accounting and Finance. Each module contains 80 to 85 questions covering twelve separate competency areas. Two hours are allocated to complete each module. The exam modules may be taken one at a time, or all in one sitting, however, the ASMC recommends that to be fully prepared, the exam modules be taken one at a time following a period of concentrated study in that module. The twelve separate competency areas that are covered in each module are shown in Table 1.

Table 1 CDFM Exam Structure

CDFM Modules	Core Competencies	Weight	Questions
I. Resource Management Environment	1. Government Resource Management Environment	15%	12-13
	2. Defense Resource Management Environment.	35%	28-30
	3. Personnel Management	15%	12-13
	4. Manpower Management	10%	8-9
	5. Management and Internal Controls	10%	8-9
	6. Fiscal Law*	15%	12-13
II. Budgeting and Cost Analysis	7. Planning, Programming, and Budgeting	60%	48-51
	8. Cost and Economic Analysis	20%	16-17
	9. Business Management Process Improvement	10%	8-9
	*Fiscal Law	10%	8-9
III. Accounting and Finance	10. Accounting	35%	28-30
	11. Finance	35%	28-30
	12. Auditing	15%	12-13
	*Fiscal Law	15%	12-13






*The Fiscal Law core competency is in all three modules but considered as only one core competency.

Table 1 also shows the weighting that has been given to each competency area by the ASMC and the number of questions that can be expected in each module based on that weighting. Also note that the Fiscal Law competency is tested in all three modules reflecting the overlap of this competency within each module. ASMC notes that while it is important to be proficient in all competencies, some sections will have a more powerful influence on success than others. For example, the Defense Resource Management Environment competency dominates module I, as does the Planning, Programming, and Budgeting competency in module II. Without sufficient knowledge in these areas, the examinee will most likely fail both modules. See "How To Use This Guide" for information on how to best use the information contained in this guide.

HOW TO USE THIS GUIDE

This guide was designed as an easy to use reference for someone studying for the CDFM exam. The data provided in Appendices A and B, provide the user with specific information as to what material is on the CDFM exam and where references containing detailed information on that material can be found. In Appendix A, each core competency is divided into knowledge elements and then further divided into specific topics resulting in a comprehensive list of the material covered on the CDFM exam. An assessment of the level of coverage of each competency, knowledge element, and specific topic by each of the Financial Management courses is also provided. The level of coverage is assessed using a five point rating scale shown in Figure 1.

Figure 1 Coverage Rating Scale

<u>Rating</u>	<u>Description</u>	<u>Cell Format</u>
0	No Coverage	
1	Little Coverage	
2	Some Coverage	
3	Significant Coverage	
4	Thorough Coverage	

One or more reference numbers are also associated with each competency, knowledge element and specific topic. Each reference number corresponds to a specific reference that is listed in Appendix B. Most of the references in Appendix B are available on-line, and a URL has been included for the user's convenience. References that are not available on-line, mostly textbooks, are so noted at the end of that reference.

As recommended by the ASMC, a comprehensive course of study should be completed for each module prior to taking the exam for that module. Appendix A organizes the core competencies, knowledge elements, and specific topics by module to aid in that endeavor. It is recommended that Financial Management students preparing for the exam follow ASMC's advice and prepare a study plan accordingly. Using this guide, a student can identify how well a specific topic was covered by the courses he or she has taken and develop their study plan accordingly.

SOURCES OF INFORMATION

Listed below are additional resources that may prove useful.

Certified Defense Financial Manager Program Website:

This site is the official website for the CDFM Program. It provides information about the certification program, testing, and training. Much of the information contained in this guide was obtained from this website. It is accessible at the following URL:
<http://www.asmconline.org/cdfm/welcome.html>

Naval Postgraduate School CDFM Training Course Website:

This site, currently titled MN4153 Winter 2001, is a website supporting a new course that is being developed and beta tested at NPS. The purpose of the course is to provide training specific to the DoD financial manager and mirrors a similar course that the ASMC contracted with the U.S. Department of Agriculture to develop called the Enhanced Defense Financial Management Training Program. This website is an excellent source of information in that it provides PowerPoint slide presentations for each of the core competencies and active links to most of the references listed in Appendix B of this guide. It is accessible at the following URL:

<http://www.sm.nps.navy.mil/curric/mn4153/>

Navy Practical Comptroller Course Website

This website supports the NPS Navy Practical Comptrollership Course and has a link to a CDFM review guide that synthesizes the content of the Certified Defense Financial Manager Training Program developed by the U.S. Department of Agriculture under contract with the ASMC. It would be a useful as a quick study prior to taking any of the exam modules. The guide is available at the following URL.

<http://pcc.nps.navy.mil/Download/download.html>

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APPENDIX A. CDFM KNOWLEDGE REQUIREMENTS

Core Competency	Knowledge Elements	Specific Topics	Reference	Module 1 - Resource Management Environment																													
				Required Courses					Elective Courses																								
				General Management					Financial Management					Overall Req'd.																			
				MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	MN 3230	Overall GM	MN 2150	MN 3151	MN 3172	MN 3331	MN 4151	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4302	MN 4306	MN 3155	OA 4702			
Government Resource Management Environment	1. The federal legislative process and its genesis	1. Genesis of Legislative Process	1																														
		2. Legislative Process	1,9																														
		a.) Forms of Legislative Business	1,9																														
		b.) Origins of Legislation	1,9																														
		c.) House and Senate Committees	1,9																														
		d.) Conference Committees	1,9																														
		e.) How a bill becomes law	1,9																														
		f.) Presidential action	1,9																														
				1. Legislative Branch	1,4																												
				2. Executive Branch	1,4																												
		3. Judicial Branch	1,4																														
	3. The role of the President, the Congress, DoD, the Office of Management and Budget (OMB), and other federal agencies in the federal budget process																																
		1. The Budget Process	1,2																														
		a.) Budget Formulation	1,2																														
		1.) Major Steps and Timeline in Formulation Phase	1,2																														
		2.) Role of DoD and Other Agencies	1,2,8																														
		3.) Role of OMB	1,2																														
		4.) Role of President	1,2																														
		b.) Budget Review	1																														
		1.) Role of Congress	1																														
		2.) Role of DoD and Other Agencies	1,8																														
		3.) Role of President	1																														
		c.) Budget Execution	1,3																														
		1.) Role of OMB	1,3																														
		2.) Role of DoD and Other Agencies	1,3,8																														
		3.) Budget Execution Terminology	1,3																														
		d.) Performance Review and Audit	1																														
		1.) Role of Congress	1																														
		2.) Role of DoD and Other Agencies	1,8																														

Core Competency	Knowledge Elements	Specific Topics	Reference	Required Courses															Elective Courses																		
				General Management										Financial Management					Overall Req'd					MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702								
				MA 2300	MN 0723	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	MN 3230	Overall GM	MN 2150	MN 3154	MN 3161	MN 3172	MN 3331	MN 4151	MN 4153	MN 4161	MN 4162	MN 4163	Overall FM	MN 4152	MN 4159	MN 4302	MN 4305	MN 3155	OA 4702				
Manpower Management	1. Relate DoD manpower financial budgets to manpower structure including the calculation of manpower requirements using the formula for FTE.	d. Multi-Level Leadership	20																																		
		c. Leading High Performance Teams	20																																		
		5. Decision Making and Organizational Learning	20																																		
		a. Decision Making in Organizations	20																																		
		b. Organizational Learning	20																																		
		6. Motivating Organization Members	23																																		
		a. Motivation approaches	23																																		
		7. Organizational communication	23																																		
		a. The communication process	23																																		
		b. Communication components	23																																		
c. Communication channels	23																																				
d. Communication networks	23																																				

Core Competency	Knowledge Elements	Specific Topics	Reference	Required Courses																	Elective Courses																					
				General Management										Financial Management							Overall Req'd		Courses																			
				MA 2300	MN 0123	IS 2010	IS 3185	OS 3006	OS 3101	MN 3001	MN 3105	MN 3140	MN 3333	MN 4105	NW 3230	Overall GM	MN 2150	MN 3164	MN 3161	MN 3172	MN 3331	MN 4161	MN 4163	MN 4162	MN 4161	MN 4163	Overall FM	Overall Req'd	MN 4152	MN 4159	MN 4302	MN 4305	MN 4306	MN 3155	OA 4702							
		9.) Congressional Reconciliation	1																																							
		10.) Budget Amendments and Supplements	1																																							
		c. Budget Execution Phase	1, 92																																							
		1.) Continuing Resolutions	1, 92																																							
		2.) Apportionments	1, 92																																							
		3.) Apportionment Review	1, 92																																							
		4.) Deferrals	1, 92																																							
		5.) Recissions	1, 92																																							
		6.) Foreign Currency Fluctuations	1, 92																																							
		d. Review and Audit Phase	1																																							
		1.) Agency control over funds	1																																							
		2.) Monitoring budget execution	1																																							
		3.) Budget program review	1																																							
		a.) DoD role	1																																							
		b.) OMB role	1																																							
		2. Management of Funds	1																																							
		a. Availability of funds	1, 43, 49																																							
		1.) Unapportioned appropriations	1, 43, 49																																							
		2.) Unallotted Appropriations	1, 43, 49																																							
		3.) Unobligated Allotments	1, 43, 49																																							
		4.) Unliquidated Obligations	1, 43, 49																																							
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		6.) Expired Appropriation	1, 43, 49																																							
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