YIIP1100
PROJECT MANAGEMENT (5 CR)

INTRODUCTION
JOUNI HUOTARI
HTTP://HOMES.JAMK.FI/~HUOJO/OPETUS/YIIP1100/

YIIP1100 PROJECT MANAGEMENT

- Compulsory Professional Studies for YII11S1

- Prerequisites: project work experience

- Objectives:
  - to know the basic terms and principles, methods, and techniques of project selection, initiation, planning, execution, follow-up and control, and closure
  - to be able to create and maintain a project management plan

- Suggested learning method: read the material before attending classes so we can discuss the most important issues together

QUICK REVIEW: DO YOU KNOW THESE PM RELATED … ?

… acronyms:

- PM
- PMO
- WBS
- BCWP
- PMBOK
- PERT
- CPM
- TQM

… terms:

- Scope
- Project vs. Program(me)
- Project office
- Project charter
- Gantt chart
- Critical path
- Risk register

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SCHEDULE

http://homes.jamk.fi/~huojo/opetus/YIIP1100/

ASSESSMENT

1. Project management plan and its presentation: 40%

2. Exercises and assignments (including exam and a self-assessment in the beginning and at the end of this course): 40%

3. Learning report: 20 %

• Grading Scale: 0-5

• Implementation: Introduction, classroom-based "lectures" and laboratory work, intermediate checking of the project work, and the final seminar take place in the classrooms and computer laboratories

• The assignments (self-assessment, the project plan) and exercises are returned to the Optima learning environment

GRADING (DETAILS)

Grade	Points	Explanation
Fail = 0	0 – 39.9	Just not good enough
1	40 – 51.9	Passed ☺
2	52 – 63.9	Satisfactory
3	64 – 75.9	Good
4	76 – 87.9	Very good
5	88 – 100	Excellent work in all areas!

DECISIONS AND THEIR RATIONALE

- http://homes.jamk.fi/~huojo/opetus/YIIP1100/YIIP1100decisions.htm

1. Competences and competence areas taken from international institutes.

2. Special focus on lean and agile methodologies.

3. Discussions instead of traditional lectures

1. COMPETENCES

- As a project manager, you need competences as described in <u>IPMA Competence Baseline</u> (ICB)
  - get familiar with those competences
  - evaluate on what level you are
  - this self evaluation is needed if you want to have <u>IPMA's certification</u>.

- Evaluation is needed for at least two purposes:

  1) you might want to apply for recognition of your prior learning (<u>application form is in JAMK's web site</u>), and

  2) you can replace part of your studies by giving lectures from your expertise area.

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2. LEAN AND AGILE METHODOLOGIES

- In a typical software project you need to know and understand and apply principles of lean and agile methodologies

- Some experts are invited to give their ideas of applying lean thinking and agile way of work

- We also offer you an environment which includes tools for agile (software) project management

- We discuss the pros and cons of using agile and traditional methods (see e.g. article in the Project Smart's web site)

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3. DISCUSSIONS INSTEAD OF TRADITIONAL LECTURES

- Approximately half of the YII11S group (=you ☺) have already applied SCRUM (or similar approach) in projects => we shall share our experiences with each other

- Only a few lessons covering just the main project management knowledge areas taken from the only ANSI standard for project management: [Project Management Body of Knowledge](#) (PMBOK® Guide)

- Although this book is mentioned as a course book, you just need to know and understand the basics of each knowledge area

4. EVALUATION BASED ON ESSENTIALS OF PM

A. Self assessment as mentioned in decision 1 above
    You need to read ICB (pdf-version, located e.g. in the Optima environment) and fill an Excel-version both in the beginning and in the end of the course

B. Project management plan for your studies; this includes topic selection (must be done before the end of the course); schedule (MS Project file or similar; including a Gantt chart), risk register etc. + its presentation

C. Learning report covering the topics included in this course + its presentation

D. Examination testing mainly that you understand basic project management terms and topics such as risk management and can apply them in practice

RECOMMENDED MATERIAL

- The IPMA Competence Baseline (ICB)

- Project Management Institute, A Guide to the Project Management Book of Knowledge (PMBOK), PMI Publications

- Useful PM course: http://www.projectreference.com/

- Outlines of the slides, templates, examples, links, and other materials are located in the Optima learning environment

- Software Project Survival Guide, Steve McConnell

- Webinars, e.g. http://www.iil.com/webinars/

COVERED TOPICS

cf. the ANSI Standard Project Management Body of Knowledge = PMBOK® Guide)

- Project Definition - what constitutes a project
- Project Scope - how to set up a project overview
- Project Teaming - how to build a high performing project team
- Project Planning - how to identify all the interim deliverables, processes, conflicts, and reviews needed to complete the project
- Risk Management - how to assess, quantify, and mitigate risks in a project
- Project Scheduling - who does what when, with critical path and deliverable dependencies aligned with key milestones
- Project Budgeting
- Project Tracking - how to monitor the progress of the project and assess standard indicators to identify impending problems
- Lessons Learned

Figure 1.1 The eight components of Cheetah's Accelerated Project Management framework

Project Launch Facilitation

Project Agreement

Lessons Learned

Success

Teaming Guidelines

Project Tracking

Participation

Staffing and Budgeting

Planning Includes Risks

Scheduling

TASK: IDENTIFY THE MOST COMMON PROBLEMS (PITFALLS, MISTAKES) IN PROJECT MANAGEMENT

- What are the typical problems in projects?

- What kind of solutions you could find for solving them?

- What do you want to learn in this Project Management course?

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TYPICAL PROBLEMS

WHAT DO YOU WANT TO LEARN?

THE FIELD OF PROJECT MANAGEMENT

PROFESSIONAL ORGANIZATIONS
CERTIFICATIONS
TOOLS

THE FIELD

- Professional Organizations
  - Project Management Institute (PMI) (http://www.pmi.org/)
  - International Project Management Association (IPMA) (http://www.ipma.ch/); 45 countries are represented in IPMA (2009)
  - Software Engineering Institute (SEI): http://www.sei.cmu.edu/
  - Association for Project Management: http://www.apm.org.uk/
  - IEEE Software Engineering Group: http://www.computer.org/
  - In Finland: Projektiyhdistys ry http://www.pry.fi/en/
- Certifications
  - USA: **PMI** PMP (PMBOK), CompTIA+
  - Mainly in Europe (+ other countries besides USA and UK): **IPMA** => IPMA 4 Level certification system
  - UK: **PRINCE2** => http://www.prince-officialsite.com/home/home.asp
- Tools
  - Microsoft Project, Primavera, ...
  - See http://www.pm-software-tools.com/

THE PROJECT MANAGEMENT BODY OF KNOWLEDGE (PMBOK)

BRIEF INTRODUCTION

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PMBOK

- Provides the fundamentals of project management
- A collection of processes and knowledge areas generally accepted as best practice
  - 5 basic process groups
  - 9 knowledge areas
- An internationally recognized standard
- Irrespective of the type of project

PROCESS GROUPS

- The five basic process groups are:
  1. Initiating
  2. Planning
  3. Executing
  4. Controlling
  5. Closing
- Processes overlap and interact throughout a project or phase
- Processes are described in terms of:
  - Inputs (documents, plans, designs, etc.)
  - Tools and Techniques (mechanisms applied to inputs)
  - Outputs (documents, products, etc.)

CREATING COMPETENCE

KNOWLEDGE AREAS

1. Project Integration Management
2. Project Scope Management
3. Project Time Management
4. Project Cost Management
5. Project Quality Management
6. Project Human Resource Management
7. Project Communications Management
8. Project Risk Management
9. Project Procurement Management
- Each knowledge area contains some or all of the project management processes
- In addition, Project Learning can be distinguished as a separate knowledge area

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PMI, CAPM, AND PMP

- The Project Management Institute (PMI) is the publisher of PMBOK

- Certification:

  - A Certified Associate in Project Management (CAPM)® has
    - demonstrated a common base of knowledge and terms in the field of PM
    - requires either 1500 hours of work on a project team or
    - 23 contact hours of formal education in project management

  - A Project Management Professional (PMP)® has
    - met specific education and experience requirements,
    - has agreed to adhere to a code of professional conduct and
    - has passed an examination designed to objectively assess and measure project management knowledge
    - must satisfy continuing certification requirements or lose the certification

  - Program Management Professional (PgMP)®

  - PMI Scheduling Professional (PMI-SP)®

  - PMI Risk Management Professional (PMI-RMP)®

IPMA COMPETENCE BASELINE (ICB)

BRIEF INTRODUCTION

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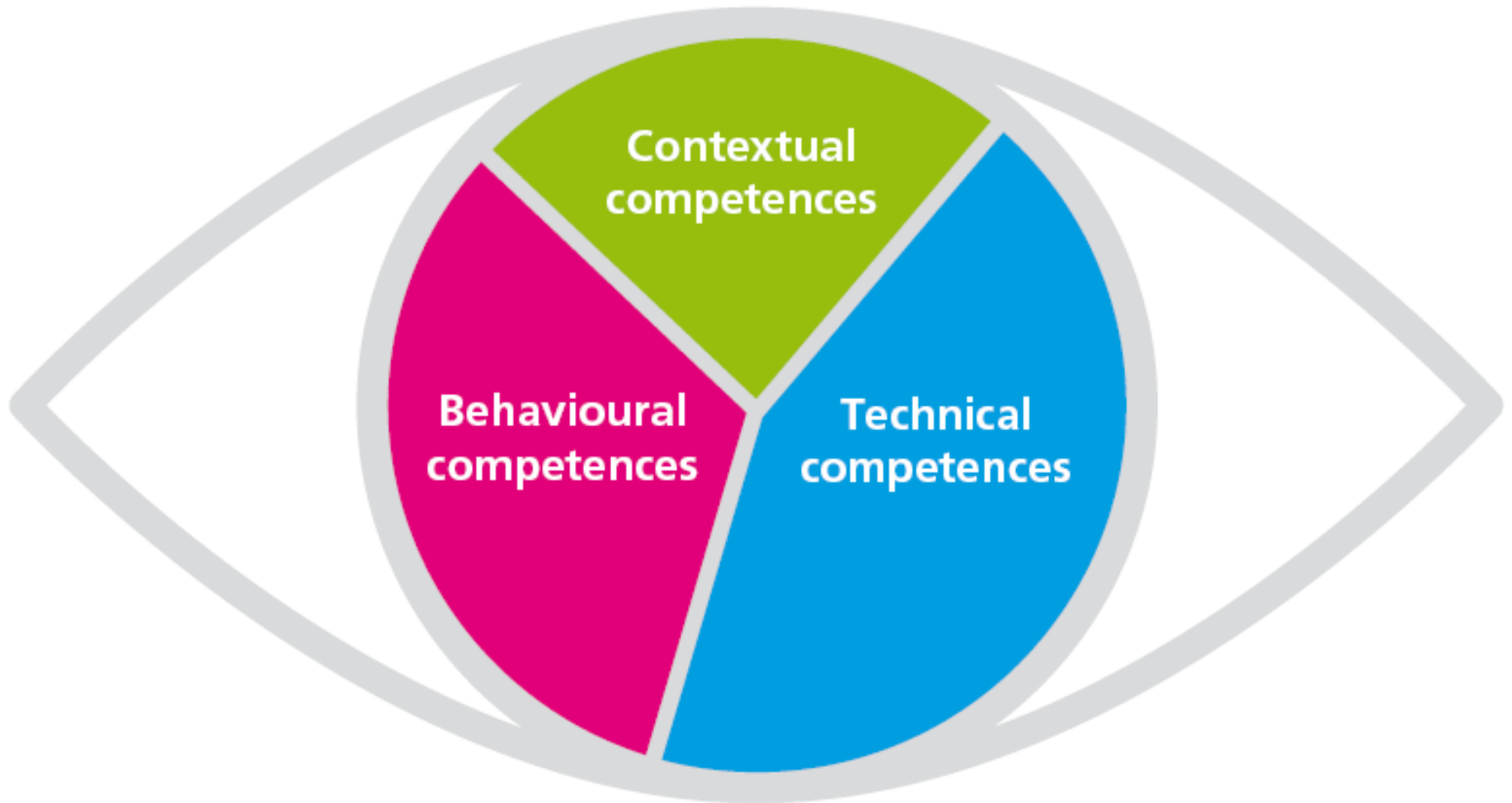JAMK UNIVERSITY OF APPLIED SCIENCES
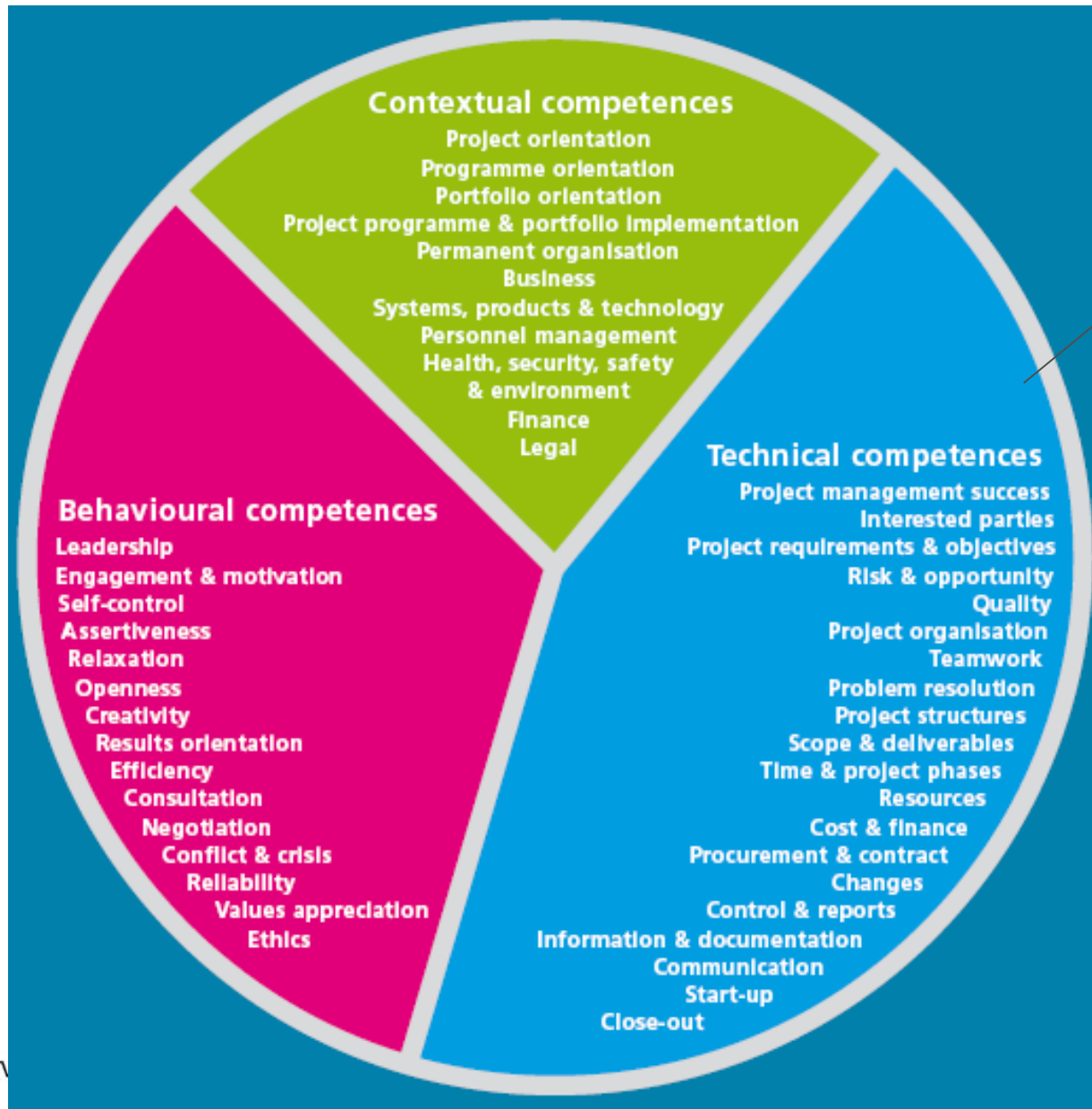
IPMA COMPETENCE BASELINE (ICB)

- World valid standard for education and training in project management

- "Contains basic terms, tasks, practices, skills, functions, management processes, methods, techniques, and tools that are used in good project management practice and theory, as well as specialist knowledge and experience, where appropriate, of innovative and advanced practices used in more limited situations"

(http://www.ipma.ch/certification/standards/Pages/default.aspx)

ICB CONTINUED

Contextual competences
Project orientation
Programme orientation
Portfolio orientation
Project programme & portfolio implementation
Permanent organisation
Business
Systems, products & technology
Personnel management
Health, security, safety
& environment
Finance
Legal

Behavioural competences
Leadership
Engagement & motivation
Self-control
Assertiveness
Relaxation
Openness
Creativity
Results orientation
Efficiency
Consultation
Negotiation
Conflict & crisis
Reliability
Values appreciation
Ethics

Technical competences
Project management success
Interested parties
Project requirements & objectives
Risk & opportunity
Quality
Project organisation
Teamwork
Problem resolution
Project structures
Scope & deliverables
Time & project phases
Resources
Cost & finance
Procurement & contract
Changes
Control & reports
Information & documentation
Communication
Start-up
Close-out

Correspond to PMBOK's 9 knowledge areas and 5 process groups

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ICB: THREE RANGES CONTAINING RELATED COMPETENCE ELEMENTS

- 20 technical competence elements deal with the project management matter, on which the professionals are working

- 15 behavioral competence elements deal with the personal relationships between the individuals and groups managed in the projects, programmes and portfolios;

- 11 contextual competence elements deal with the interaction of the project team within the context of the project and with the permanent organization

ASSIGNMENT: SELF ASSESSMENT

- Perform the IPMA Competence Baseline (ICB) self assessment (NCB = National Competence Baseline)
  - http://homes.jamk.fi/~huojo/opetus/YIIP1100/tasks/
  - Fill the NCB3v102.xls (first quickly, then – after reading the more detailed instructions from NCB3.pdf – more thoroughly)
  - Translated version of National Competence Baseline 3.0: http://www.pry.fi/html/02_documents/PMAF_NCB_3%200_v1.0.pdf
  - Answer as honestly as possible (10 = guru, 7-9 = very high level, 4-6 = medium level, 1-3 low level, 0 = no knowledge)

- Return the document to the Optima environment by 7.10.2011 at 2.30 PM

WHAT NEXT?

- Answer the questions in Optima environment
- Perform the self assessment and return it to <u>Optima</u> environment
- Explore the links provided in Optima and in the course home page (<u>PM_links.pdf</u>)

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ADDITIONAL SELF AND PEER ASSESSMENT LINKS

- Quick test (10 questions): http://articles.techrepublic.com.com/5100-10878_11-1053160.html

- PMP test (75 free sample questions): http://www.oliverlehmann.com/pmp-self-test/75-free-questions.htm

- PM IQ (360° view): http://www.cheetahlearning.com/assessment/

Source:

Provider	URL	Free Test Questions	Comment
9:pm GmbH	de.9pm.biz	20	Prep questions in German language from the translators of the PMBOK Guide
CertGear	www.certgear.com	6	Downloadable free trial copy of CertGear's exam simulator with 20 questions.
Certification.about.com	certification.about.com	20	
Head First Labs	www.headfirstlabs.com	200	PDF file with 2MB for download. It serves as an appetizer for the *Head First PMP* prep book published in 3/07.
MeasureUp	www.measureup.com	7	Simulates online a test environment similar to the original environment.
Oliver F. Lehmann	www.oliverlehmann.com	175	PDF file with 1MB for download. Just like the real thing: Questions are written against the *PMP Examination Specification* and reference to a current project management source
PMExam.com	www.pmexam.com	?	Order their free *Daily Digest* as an e-mail service. A great resource.
PM Study	www.pmstudy.com	50	200 free questions with registration.
PMTI	www.4pmti.com	15	Registration needed.
ProXalt	www.proxalt.com	20	Registration needed.
Tutorials Point	www.tutorialspoint.com	200	
Voight Project Solutions	www.voightps.com	200	Dr. Roger Voight has a large body of free questions. Many of them are also helpful for CAPM candidates.
Test Prep Review	www.testprepreview.com	15	
Whizlab	www.whizlabs.com	15	Downloadable free trial copy of exam simulator with 15 questions.

CertGear: CAPM Exam Simulator [Question - 1 of 12]

File   Edit   Font   Help

☐ Mark For Review

Question #1. Select The 1 Best Answer(s)

Dennis works for an international manufacturer of consumer electronics. He has been recently assigned to supervise and manage the manufacturing of a new model of flat-screen televisions. His supervisor congratulates Dennis on his expanded responsibilities.

He informs Dennis that his new assignment will be to have the 1000 units of the new flat-screen televisions manufactured by September. Before Dennis begins manufacturing these new units, he needs to determine the characteristics of this new product line, such as screen size, color, resolution, etc. Which of the following tasks must Dennis perform prior to manufacturing the product?

○ (A) Progressive elaboration

○ (B) Submit a RFP to get the detailed requirements

○ (C) Submit a RFQ to get the detailed requirements

○ (D) Consult his supervisor for the detailed requirements

○ (E) Fast-track the project - begin manufacturing the products while the requirements are clarified.

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| REVIEW | | BACK | *Score: 0/0 [0%]* | NEXT | | NOTES | GRADE |

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EXAMPLE

Following is a summary status report of an automation project at the end of Week # 4 from the start of the project: (Please Click On "Exhibit Button" to view the image) The work content of all the activities is linear.

If the project is sold at $75,000 with a profit of $10,000, what would be the EAC assuming that the current cost performance is typical for the rest of the project?

[A] ◯ $86,100

[B] ◯ $77,750

[C] ◯ **$74,600**

[D] ⦿ Cannot be determined

Budget At Completion (BAC) = $75,000 - $10,000 = $65,000.

If the Cost Performance Index (CPI) remains the same, EAC = AC + (BAC-EV)/CPI

= $ 39,000 + ($65,000 - $ 34,000) / (34,000/39,000) = $ 74,600.

Hence choice C is correct while choices A, B, and D are incorrect. Please find the calculation mentioned below.
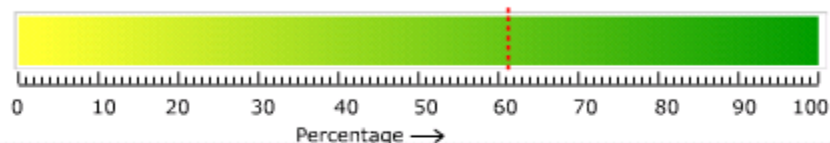
◀ Previous

Go To Question No. 1 ▼

Save Bookmarks   ⊘ Close

Exhibit

Whizlabs PMP Preparation Kit

Trial Exam

Question Wise Exam Report

📧▸ **Email Report** | 🖨 Print

Your Score: 15   Passing Score: 10   Maximum Score: 15

| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

Percentage →

Exam Result Analysis

Good Work! You have passed. Keep scoring high to ensure your success!!

Ensure your success! Buy Full Version

Result: Pass

S No.	Exam Objective	Difficulty Level	Answer	Question Type	Score
1	Initiating the Project	Beginner	✓	Single Choice	1/1
2	Initiating the Project	Expert	✓	Single Choice	1/1
3	Planning the Project	Intermediate	✓	Single Choice	1/1
4	Planning the Project	Beginner	✓	Single Choice	1/1
5	Planning the Project	Expert	✓	Single Choice	1/1
6	Executing the Project	Intermediate	✓	Single Choice	1/1
7	Executing the Project	Intermediate	✓	Single Choice	1/1
8	Executing the Project	Expert	✓	Single Choice	1/1
9	Monitoring and Controlling the Project	Intermediate	✓	Single Choice	1/1
10	Monitoring and Controlling the Project	Expert	✓	Single Choice	1/1
11	Closing the Project	Expert	✓	Single Choice	1/1
12	Closing the Project	Expert	✓	Single Choice	1/1
13	Professional and Social Responsibility	Beginner	✓	Single Choice	1/1

Review Incorrect   **Objective Wise Report**

💾 Save   ⊘ Close

Double click on a question to view its explanation