# Contents

*Introduction* xxvi

*Assessment Test* xxxi

## Chapter 1  
**What Is a Project?**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is It a Project?</td>
<td>1</td>
</tr>
<tr>
<td>Projects vs. Operations</td>
<td>2</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>3</td>
</tr>
<tr>
<td>Project Characteristics</td>
<td>5</td>
</tr>
<tr>
<td>What Is Project Management?</td>
<td>7</td>
</tr>
<tr>
<td>Programs</td>
<td>7</td>
</tr>
<tr>
<td>Portfolios</td>
<td>8</td>
</tr>
<tr>
<td>Project Management Offices</td>
<td>9</td>
</tr>
<tr>
<td>Skills Every Good Project Manager Needs</td>
<td>10</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>12</td>
</tr>
<tr>
<td>Organizational and Planning Skills</td>
<td>13</td>
</tr>
<tr>
<td>Conflict Management Skills</td>
<td>14</td>
</tr>
<tr>
<td>Negotiation and Influencing Skills</td>
<td>14</td>
</tr>
<tr>
<td>Leadership Skills</td>
<td>15</td>
</tr>
<tr>
<td>Team-Building and Motivating Skills</td>
<td>15</td>
</tr>
<tr>
<td>Role of a Project Manager</td>
<td>16</td>
</tr>
<tr>
<td>Understanding Organizational Structures</td>
<td>16</td>
</tr>
<tr>
<td>Functional Organizations</td>
<td>17</td>
</tr>
<tr>
<td>Projectized Organizations</td>
<td>20</td>
</tr>
<tr>
<td>Matrix Organizations</td>
<td>22</td>
</tr>
<tr>
<td>Project-Based Organizations</td>
<td>26</td>
</tr>
<tr>
<td>Understanding Project Life Cycles and Project Management Processes</td>
<td>26</td>
</tr>
<tr>
<td>Project Phases and Project Life Cycles</td>
<td>26</td>
</tr>
<tr>
<td>Project Management Process Groups</td>
<td>29</td>
</tr>
<tr>
<td>Understanding How This Applies to Your Next Project</td>
<td>36</td>
</tr>
<tr>
<td>Summary</td>
<td>36</td>
</tr>
<tr>
<td>Exam Essentials</td>
<td>37</td>
</tr>
<tr>
<td>Review Questions</td>
<td>39</td>
</tr>
</tbody>
</table>

## Chapter 2  
**Creating the Project Charter**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploring the Project Management Knowledge Areas</td>
<td>45</td>
</tr>
<tr>
<td>Project Integration Management</td>
<td>47</td>
</tr>
<tr>
<td>Project Scope Management</td>
<td>49</td>
</tr>
<tr>
<td>Project Time Management</td>
<td>50</td>
</tr>
</tbody>
</table>
Contents

Project Cost Management 51
Project Quality Management 52
Project Human Resource Management 53
Project Communications Management 54
Project Risk Management 55
Project Procurement Management 55
Project Stakeholder Management 56
Understanding How Projects Come About 56
Needs and Demands 57
Feasibility Studies 59
Performing Project Selection and Assessment 60
Using Project Selection Methods 62
Applying Project Selection Methods 68
Kicking Off the Project Charter 70
Project Statement of Work 70
Business Case 71
Agreements 72
Enterprise Environmental Factors 72
Organizational Process Assets 73
Tools and Techniques 75
Formalizing and Publishing the Project Charter 75
Pulling the Project Charter Together 76
Key Stakeholders 76
Project Charter Sign-Off 79
Identifying Stakeholders 79
Identify Stakeholders Inputs 79
Stakeholder Analysis 80
Stakeholder Register and Strategy 83
Introducing the Kitchen Heaven Project Case Study 83
Understanding How This Applies to Your Next Project 87
Summary 88
Exam Essentials 89
Review Questions 91

Chapter 3 Developing the Project Scope Statement 97
Developing the Project Management Plan 99
Developing Inputs 100
Documenting the Project Management Plan 102
Plan Scope Management 104
Understanding the Plan Scope Management Inputs 105
Using Plan Scope Management Tools and Techniques 106
Documenting the Scope Management Plan 107
Documenting the Requirements Management Plan 107
Collecting Requirements 108
Using the Tools and Techniques of the Collect Requirements Process 110
Documenting Requirements 112
Defining Scope 115
Product Analysis 116
Alternatives Generation 117
Writing the Project Scope Statement 118
Understanding the Scope Statement Components 118
Approving and Publishing the Project Scope Statement 125
Updating the Project Documents 125
Creating the Work Breakdown Structure 126
Gathering the WBS Inputs 127
Decomposing the Deliverables 128
Constructing the WBS 129
Creating WBS Process Outputs 137
Understanding How This Applies to Your Next Project 141
Summary 142
Exam Essentials 143
Review Questions 145

Chapter 4

Creating the Project Schedule 151
Creating the Schedule Management Plan 152
Defining Activities 154
Define Activities Process Inputs 154
Tools and Techniques for Defining Activities 154
Define Activities Outputs 155
Understanding the Sequence Activities Process 156
Sequence Activities Tools and Techniques 157
Sequence Activities Outputs 162
Estimating Activity Resources 162
Estimate Activity Resources Inputs 163
Estimate Activity Resources Tools and Techniques 164
Estimate Activity Resources Outputs 165
Estimating Activity Durations 165
Estimate Activity Durations Inputs 166
Estimate Activity Durations Tools and Techniques 166
Estimate Activity Durations Outputs 170
Developing the Project Schedule 171
Develop Schedule Inputs 172
Develop Schedule Tools and Techniques 173
Scheduling Process Outputs 185
Understanding How This Applies to Your Next Project 194
Summary 195
Exam Essentials 196
Review Questions 198
Chapter 5  Developing the Project Budget and Communicating the Plan 205

Creating the Project Cost Management Plan 206
Performing Plan Cost Management 207
Creating the Cost Management Plan 207

Estimating Costs 209
Estimate Costs Inputs 210
Tools and Techniques to Estimate Costs 212
Estimate Costs Process Outputs 214

Establishing the Cost Baseline 215
Determine Budget Inputs 216
Determine Budget Tools and Techniques 217
Determine Budget Process Outputs 218

Understanding Stakeholders 221
Analyzing Stakeholders 222
Stakeholder Management Plan 223

Communicating the Plan 224
Plan Communications Management Inputs 224
Tools and Techniques for Plan Communications Management 225
Plan Communications Management Outputs 229

Understanding How This Applies to Your Next Project 233
Summary 234
Exam Essentials 235
Review Questions 236

Chapter 6  Risk Planning 241

Planning for Risks 242
Planning Your Risk Management 243
Plan Risk Management Inputs 244
Tools and Techniques for Plan Risk Management 245
Creating the Risk Management Plan 246

Identifying Potential Risk 251
Identify Risks Inputs 252
Tools and Techniques for Identify Risks 254
Identify Risks Outputs 260

Analyzing Risks Using Qualitative Techniques 261
Perform Qualitative Risk Analysis Inputs 262
Tools and Techniques for Perform Qualitative Risk Analysis 262
Ranking Risks in the Risk Register 269

Quantifying Risk 269
Tools and Techniques for Perform Quantitative Risk Analysis 270
Perform Quantitative Risk Analysis Outputs 275
Developing a Risk Response Plan 276
Tools and Techniques for Plan Risk Responses 277
Plan Risk Responses Outputs 281
Understanding How This Applies to Your Next Project 285
Summary 286
Exam Essentials 287
Review Questions 289

Chapter 7 Planning Project Resources 295

Procurement Planning 296
Plan Procurement Management Inputs 297
Tools and Techniques for Plan Procurement Management 299
Plan Procurement Management Outputs 304

Developing the Human Resource Management Plan 310
Plan Human Resource Management Inputs 310
Plan Human Resource Management Tools and Techniques 313
Plan Human Resource Management Outputs 315

Quality Planning 318
Plan Quality Management Inputs 318
Tools and Techniques for Plan Quality Management 320
Plan Quality Management Outputs 327

Bringing It All Together 330
Understanding How This Applies to Your Next Project 335
Summary 336
Exam Essentials 337
Review Questions 338

Chapter 8 Developing the Project Team 343

Directing and Managing Project Work 344
Direct and Manage Project Work Inputs 346
Tools and Techniques of Direct and Manage Project Work 347
Outputs of Direct and Manage Project Work 347

Acquiring the Project Team 351
Acquire Project Team Inputs 351
Tools and Techniques of Acquire Project Team 352
Outputs of Acquire Project Team 354

Developing the Project Team 355
Tools and Techniques of Develop Project Team 356
Outputs of Develop Project Team 371

Managing Project Teams 372
Tools and Techniques for Managing Teams 372
Managing Project Team Outputs 377
Understanding How This Applies to Your Next Project 380
Summary 381
Exam Essentials 382
Review Questions 383

Chapter 9 Conducting Procurements and Sharing Information 389
Conducting Procurements 390
  Conduct Procurements Tools and Techniques 391
  Conduct Procurements Outputs 397
Laying Out Quality Assurance Procedures 399
  Inputs to Perform Quality Assurance 400
  Perform Quality Assurance Tools and Techniques 400
  Perform Quality Assurance Outputs 403
Managing Project Information 404
  Tools and Techniques of Manage Communications 405
  Output of Manage Communications 409
Managing Stakeholder Engagement 411
  Manage Stakeholder Engagement Inputs 412
  Tools and Techniques for Manage Stakeholder Engagement 412
  Manage Stakeholder Engagement Outputs 412
Understanding How This Applies to Your Next Project 416
Summary 417
Exam Essentials 418
Review Questions 419

Chapter 10 Measuring and Controlling Project Performance 425
Monitoring and Controlling Project Work 427
  Monitor and Control Project Work Inputs 428
  Monitor and Control Project Work Outputs 430
Controlling Procurements 432
  Controlling Procurements Inputs 433
  Control Procurements Tools and Techniques 434
  Managing Control Procurements Outputs 436
Controlling Communications 439
  Control Communications Inputs 439
  Control Communications Tools and Techniques 440
  Control Communications Outputs 442
Managing Perform Integrated Change Control 444
  How Change Occurs 445
  Change Control Concerns 446
  Configuration Control 447
  Change Control System 448
## Perform Integrated Change Control Inputs, Tools and Techniques, and Outputs
- Controlling Stakeholder Engagement 453
- Understanding How This Applies to Your Next Project 456
- Summary 457
- Exam Essentials 457
- Review Questions 459

### Chapter 11 Controlling Work Results 465

- Monitoring and Controlling Risk 466
  - Control Risks Inputs 467
  - Control Risks Tools and Techniques 468
  - Control Risks Outputs 469
- Managing Cost Changes 470
  - Control Costs Inputs 471
  - Control Costs Tools and Techniques 471
  - Control Costs Outputs 481
- Monitoring and Controlling Schedule Changes 485
  - Control Schedule Inputs 485
  - Control Schedule Tools and Techniques 485
  - Control Schedule Outputs 487
- Utilizing Control Quality Techniques 488
  - Control Quality Inputs 488
  - Control Quality Tools and Techniques 489
  - Control Quality Outputs 497
- Validating Project Scope 498
- Controlling Scope 499
  - Control Scope Inputs 499
  - Control Scope Tools and Techniques 500
  - Control Scope Outputs 500
- Understanding How This Applies to Your Next Project 503
- Summary 504
- Exam Essentials 505
- Review Questions 506

### Chapter 12 Closing the Project and Applying Professional Responsibility 511

- Formulating Project Closeout 513
  - Characteristics of Closing 514
  - Project Endings 514
- Closing Out the Project 517
  - Administrative Closure Procedures 518
Close Project or Phase Inputs 519
Close Project or Phase Tools and Techniques 519
Close Project or Phase Outputs 520
Closing Out the Procurements 523
Close Procurements Inputs 524
Close Procurements Tools and Techniques 524
Close Procurements Outputs 524
Celebrate! 526
Releasing Project Team Members 526
Balancing Stakeholders’ Interests at Project Close 526
Competing Needs 527
Dealing with Issues and Problems 528
Balancing Constraints 528
Professional Responsibility 530
Responsibility 531
Respect 533
Fairness 536
Honesty 539
Role Delineation Study 541
Applying Professional Knowledge 541
Project Management Knowledge 541
Education Providers 542
Industry Knowledge 542
Understanding How This Applies to Your Next Project 546
Summary 547
Exam Essentials 549

Appendices 555

Appendix A  Answers to Review Questions 557

Appendix B  Process Inputs and Outputs 577

Initiating Processes 578
Planning Processes 579
Executing Processes 588
Monitoring and Controlling Processes 591
Closing Processes 596

Index 597