| Topic | File name (or example reference) | 4.2 Advertising <br> Models |
| :---: | :---: | :---: |
| Variations of advertising example | Example 4.1 | 1-4, 5-6 |
| Variations of employee scheduling example | Example 4.2 |  |
| Variations of aggregate planning example | Example 4.3 |  |
| Variations of oil blending example | Example 4.4 |  |
| Variations of production process example | Example 4.5 |  |
| Variations of investing example | Example 4.6 |  |
| Variations of pension fund example | Example 4.7 |  |
| Efficiency of banks | P04_41 |  |
| Efficiency of elementary schools | P04_42 |  |
| Efficiency of police departments | P04_43 |  |
| Efficiency of academic departments | P04_44 |  |
| Hiring and firing bus drivers |  |  |
| Scheduling police force |  |  |
| Aggregate planning of shoe production |  |  |
| Blending drugs | P04_48 |  |
| Blending candy |  |  |
| Blending orange juice |  |  |
| Investing bank assets |  |  |
| Investing in stocks |  |  |
| Blending fertilizer |  |  |
| Drug blending |  |  |
| Floor space for TVs, PCs | P04_55 |  |
| Selecting bond portfolio | P04_56 |  |
| Blending and shipping coal | P04_57 |  |
| Producing tables and chairs |  |  |
| Production process for three products |  |  |
| Production process for three products |  |  |
| Investing in five investments | P04_61 |  |
| Investing in two investments | P04_62 |  |
| Investing in three investments |  |  |
| Blending oil |  |  |
| Blending steel | P04_65 |  |
| Blending steel | P04_66 |  |
| Producing wheat and corn | P04_67 |  |
| Blending perfumes |  |  |
| Refining and shipping oil | P04_69 |  |
| Blending cattle feed |  |  |
| Blending and purifying oil | P04_71 |  |
| Producing, shipping, and advertising toys | P04_72 |  |
| Producing two products on two lines |  |  |
| Scheduling bank employees | P04_74 |  |
| Scheduling airline ticket agents | P04_75 |  |
| Blending rocks to fill orders | P04_76 |  |


| Aggregate planning of car production |  |  |
| :---: | :---: | :---: |
| Blending oil | P04_78 |  |
| Aggregate planning of DVD players |  |  |
| Manufacturing automobiles |  |  |
| Determining monthly payments |  |  |
| Mortgage payments |  |  |
| Planning for retirement |  |  |
| Merger negotiations | P04_84 |  |
| Processing Medicare claims | P04_85 |  |
| Determining executive salaries | P04_86 |  |
| Aggregate planning of car production |  |  |
| Renting supercomputers by IRS | P04_88 |  |
| Buying and selling wheat | P04_89 |  |
| Risk index of portfolio | P04_90 |  |
| Blending gasoline | P04_91 |  |
| Production, blending of drugs |  |  |
| Production process for three chemicals | P04_93 |  |
| Production process for three products |  |  |
| Scheduling production of motorcycles |  |  |
| Advertising to increase auto sales | P04_96 |  |
| Purchasing and selling bonds | P04_97 |  |
| Aggregate planning of car production | P04_98 |  |
| Investing in three projects | P04_99 |  |
| Paying off credit card debt | P04_100 |  |
| Producing various length aluminum ingots | P04_101 |  |
| Scheduling three shifts of employees | P04_102 |  |
| Aggregate planning for air conditioners |  |  |
| Scheduling bank employees | P04_104 |  |
| Scheduling police officers |  |  |
| Buying and selling corn | P04_106 |  |
| Disposing of waste | P04_107 |  |
| Blending for transistor production | P04_108 |  |
| Blending turkey meat |  |  |
| Scheduling engine line workers |  |  |
| Processing tax forms at IRS |  |  |
| Managing cash flows with loans | P04_112 |  |
| Scheduling truck production | P04_113 |  |
| Scheduling bank employees to process checks | P04_114 |  |
| Scheduling fiberglass mat production | P04_115 |  |
| Blending perfumes |  |  |
| Blending oils to make gasoline |  |  |
| Production process for six products | P04_118 |  |
| Production process for four products |  |  |
| Production process for three products |  |  |
| Assigning students to schools | P04_121 |  |
| Processing lumber |  |  |
| Selling two products to two customer groups | P04_123 |  |


| Investing and paying bills | P04_124 |  |
| :--- | :--- | :--- |
| Scheduling police officers | P04_125 |  |
| Processing paper for recycling | P04_126 |  |
| Arbitrage on bond sales and purchases | P04_127 |  |
| Scheduling employees at fast food restaurant |  |  |
| Scheduling nurses at a maternity ward |  |  |
| Blending for paper products |  |  |
| Determining cost of producing a product |  |  |
| Aggregate planning, multiple products on machines |  |  |
| Personnel strategy at CPA firm |  |  |
| Difficulty of large employee scheduling problems |  |  |
| Clearing denominators in blending problem |  |  |


| 4.3 Employee Scheduling Models | 4.4 Aggregate Planning Models | 4.5 Blending Models | 4.6 Production Process Models | 4.7 Financial Models |
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| 7-9, 10-12 |  |  |  |  |
|  | 13-16, 17-19 |  |  |  |
|  |  | 20-24, 25 |  |  |
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$\left.\begin{array}{|c|c|}\hline \text { 4.8 Data } \\ \text { Envelopment } \\ \text { Analysis }\end{array}\right)$

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