# A PRACTICAL APPROACH TO TEACHING THE ASPECTS OF PLANT CLOSING IN AN UNDERGRADUATE OPERATIONS MANAGEMENT COURSE

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In light of the recent economic downturn, the introduction and instruction of methods and practices related to plant and facility closings are topics that are long overdue as part of the Operations Management course content presented in our Business Schools. Operations Management textbooks provide little to no coverage of operations shutdown for plant closing. As a result, this topic is frequently excluded from Operations Management courses. Two elements missing from most OM courses are a textbook chapter covering the closing process and inclass exercises/activities related to applying that process. This paper addresses the key topics needed for a textbook chapter dealing with the operational aspects of closing a facility. Such topics include employee impact (and dealing with employee retraining), the WARN act (including ERISA issues), inventory disposition, and quality control. Teaching notes for each section are included, with an overall discussion of class activities related to the topics. We provide educators with a best practices approach to teaching students how to handle the operation of the plant in this difficult time. There are activities that the operations manager should start doing, stop doing and keep doing. A frank, practical experience-based perspective is given.

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#### 1. INTRODUCTION

Businesses come and go. While much has been written concerning the fundamental decision process of whether or not to close a facility, little is done to prepare management to handle the actual shutting down of the operation. The "art" of closing a plant is one learned through practical experience, not textbook learning. As more manufacturing moves out of the US, it seems only logical that the functional decisions and practical applications of managing a plant closing be incorporated into the fundamental elements of an operations management course and associated text. Very recent publications, including Harvard Business Review (Freeman, 2009) and HR Magazine (Fox, 2009), show that an increase in bankruptcies and plant closings should indicate the immediate need for inclusion of these practices in the instruction of executives, managers and business students in general.

In this paper, we present the issues and considerations of a facility closing. Most obvious in this approach are the operational aspects of running the plant to closure. How will inventory, in all of its forms, be handled, dispositioned and processed? How should capital projects be handled? Should they be completed or stopped immediately? How should staffing be dealt with? Should key personnel be offered incentives to stay to completion?

Another consideration lies in the area of Human Resource Management. How will the company deal with its personnel? What considerations should be made regarding potential problems with employees? What about employee retraining? How will future benefits or compensation be handled? Also, in closing the facility, there no doubt will be legal issues and considerations. How will the Worker Adjustment and Retraining Notification Act (WARN) impact the closing? Will there be issues related to pensions and retirement benefits? What about issues of discrimination, taxes, and the environment?

Finally, we will provide some ideas of how to teach and train students to understand the complex issues that are inter-twined in the process of closing a facility so that they can get an idea of how to plan and prepare for such a closing, as well as implement the plan and interact with that closing.

#### 2. OPERATIONAL ISSUES AND CONSIDERATIONS

Considerations related to operations are the more obvious to be addressed in closing any plant. Product inventory, maintenance and operating supplies inventory, cycle counting, capital projects, and to some extent from the operational side, staffing and morale are all issues that plant management will be forced to deal with in the closing of the operation. Planning ahead will help management to minimize problems in the effort to close the plant.

# 2.1. Inventory management

Sound inventory management advises the Operations Manager (OM) that all inventory items do not deserve the same amount of attention. Using Pareto's Law, inventory items are classified as A, B or C based on their annual dollar volume. The highest annual dollar volume items are classified as A items. A suggested division is 15% for A, 35% for B and 50% for C items (Heizer & Render, 2004).

The objective of classification is to establish the appropriate degree of control over each item. It is recognized that criteria, other than annual dollar volume, can be used to determine the A, B, C classification. The OM responsible for closing a plant should consider classification based on the projected number of days on hand rather than annual dollar volume. Inventory with projected on hand balances that significantly exceed the targeted shutdown date or have no reasonable expectation of a customer requirement should be classified as A items. Finished goods or raw material inventory with high demand or that can be transferred to a surviving plant should be classified as C items.

The plant cannot close until the inventory is gone. Therefore, the OM needs to determine a disposition for all inventory items. The A items are the most ready for disposition. There are a finite number of disposition options: Sell (e.g. customer, auction, e-Bay, and salvage outlet), Scrap, Rework, Return to vendor, Donate. The OM will find the disposition process extraordinarily time consuming.

# 2.2. Maintenance and operating supplies (MRO) inventory

High dollar value MRO items are often kept on the balance sheet rather than expensed. As these parts are installed or used, they are removed from the balance sheet and expensed. Unfortunately, the operation may not have paid adequate attention to its MRO inventories. Best practices for ongoing operations should require periodic or annual physical inventory of MRO items. If the operation has an extensive "bone yard" of maintenance parts, this can be a very time consuming process. Finished goods and raw materials inventories receive the scrutiny of cycle counting programs and, if still required, an annual full

physical inventory. In the case of MRO inventory cycle counting, staff may not have the needed training to handle unique maintenance parts. The maintenance supervisor or mechanic has the parts knowledge but may be lacking the time or desire to complete the counting and record keeping aspects of the task.

If the accuracy of the MRO inventory is questionable, the OM responsible for plant closing should begin the process with a full physical inventory. After a physical inventory has verified the existence of the MRO items, the next step is to assess the value of these items and determine a disposition. Can the OM realize this value through the sale, return to vendor or transfer of these items to ongoing operations? The organization may find itself in the unfortunate position of discovering high balance sheet dollars for near worthless MRO items or the possibility of a negative salvage value.

# 2.3. Cycle counting

If a closing plant uses annual dollar volume to classify its items for cycle counting, the plant may close before a C item is scheduled to count. If days on hand are used for classification, the C items could be scheduled for counting in the days or weeks preceding the shutdown or when the item is scheduled for final use or transfer.

The OM closing a plant should reconsider the benefits of spending time improving inventory accuracy. The OM should give serious consideration to using cycle counters to handle the tasks of inventory disposition. The process of making arrangements for inventory sale or packaging an item for return to vendor can consume huge amounts of staff time. Cycle counters are often familiar with plant procedures, vendors, purchasing agents and shipping procedures. They can be the best resource to handle the disposition task.

# 2.4. Capital projects

The Capital Project approval process is a complex and conceptually difficult topic. Fortunately, once a capital project is approved, the process typically looks only forward and assumes the project will be completed and not abandoned. Unfortunately, if a plant is closing, this assumption is no longer valid. Capital expenditures justified and approved under the assumption of an ongoing operation need to be re-evaluated under the assumption of a date certain for shutdown. The OM needs to undertake a review of all authorized capital projects.

The decision to abort or complete a capital project is a one project at a time process. Since time is of the essence, the OM should give this task a high priority. A capital intensive operation may have a sizable capital budget involving the purchase of high dollar assets. A delay in reviewing a project could result in a lost opportunity to cancel an equipment order.

Organizations often classify capital projects by their justification. These classifications may include: Employee Safety, Regulatory Compliance, Product Quality, Cost Improvement, or Replacement of worn asset. It is logical to review capital projects by this same classification.

Projects whose justification was related to employee safety, environmental regulation or maintaining or achieving product quality are often by their nature fast track, high priority projects. The OM should not assume that these projects must proceed. Consideration should be given to an earlier shutdown or outsourcing of the involved processes or products. For example, if environmental compliance is an issue, consideration should be given to outsourcing the process. If product quality can no longer be achieved or maintained without a capital investment, perhaps the product is a candidate for early shutdown or purchase from an external source.

Cost improvement projects should be reviewed against their payback period. It is highly unlikely that the payback period will occur before the plant closing date. Project savings calculations should undergo serious scrutiny. In light of the plant closing date, these savings may no longer be valid. It is rare for cost improvement projects to survive against a payback period and savings calculation review.

For projects justified as the replacement of worn assets, consideration should be given to temporary repair, leasing or early shutdown of the asset. If the replaced asset can be transferred to another plant, the justification needs to include the cost to dismantle, ship and reinstall. The OM of the receiving plant should be involved in this decision.

# 2.5 Staffing and morale considerations

Upon completion of the capital project review, the next step for the operations manager is to re-assess staff needed to implement the remaining projects. Initially, the project managers will be involved in canceling equipment purchases, stopping construction crews, returning materials and dismantling equipment. After these tasks have been completed, the project engineers and

other staff members with capital project management responsibilities have a reduced workload. It may be appropriate to begin severing employment or reassigning staff.

The operations manager should communicate capital project cancellations with tact and sensitivity. The project managers are likely to have little enthusiasm for canceling the project they worked so hard to justify and design. The aborted projects will serve as a reminder to all employees of the inevitability of the plant closure.

Table 1. Teaching notes - Operational Issues and Considerations

Instructional direction	Student understanding	Discussion or simulation
Introduce students to the concepts of inventory management, but within the context of a closing facility whose intent is to close with near zero inventory and minimum loss on the balance sheet.	Students should have an understanding of the idea that inventory must be eliminated as part of the plant closing, and that efforts will have to be coordinated with many areas of the operation, including purchasing agents, material controls personnel, and members of shipping and receiving.	Provide a list of possible inventory items that may be found in a typical manufacturing facility. Have the class discuss various methods that they might use in order to reduce and eliminate the inventory: reduced pricing, alternative applications, etc.
Provide lists of various capital projects that may have been planned or started, and lead discussions on the decision process of which projects to scrap and which to complete.	Students should have a level of understanding of capital projects so that they can grasp the importance of which projects are still needed and which are no longer required when the plant is closing.	• Introduce a situational discussion; a homeowner is considering putting in a swimming pool and replacing the roof. If the home owner decides to sell the house, which if any of these projects should be completed?

# 3. HUMAN RESOURCE MANAGEMENT ISSUES AND CONSIDERATIONS

Employees whose unproductive behaviors result from ineffective human resource (HR) management activities (e.g., selection and training) may serve as an impetus to plant closings (LaRusso, 1989). Focusing on the organization's human capital should therefore begin long before the possibility of closing. However, once the decision has been reached to close the plant, organizational decision-makers ironically must focus on employee-centered activities as they plan for separating those employees. Involving HR in closing efforts helps fulfill the role of HR in reconciling "bottom-line outcomes with employee well-being" (Rynes, 2004, p. 211).

Plant closure may exact substantial damage on the employee-employer relationship. Separated employees experience concern over the uncertainty of their futures as the closure decision erodes their perceptions of the employer being the source of job security; interestingly, non-affected employees as well as employees of other organizations who hear of the closure respond with similar angst, further complicating normal operations at neighboring companies (LaRusso, 1989).

Several approaches exist for addressing this anxiety. Advanced notice and a thorough explanation of the reasons for the adverse action can increase employees' trust in the organization and perceptions of procedural justice (Brockner, Konovsky, Cooper-Schneider, & Folger, 1994), or that the procedures the company used to determine an outcome or decision were fair, regardless of the outcome (Lind & Tyler, 1988).

Advanced notice is more likely when the reason for the layoff or plant closure is endogenous (e.g., organizational changes) rather than exogenous (e.g., economic downturn) and when managers feel they have more control over notifying their employees (Gilliland & Schepers, 2003).

Managers who feel they have more control over the notification and who view the affected employees as valuable contributors in the past tend to have more interpersonal sensitivity, which increases the employees' perceptions of just treatment (Gilliland & Schepers, 2003). Thus, employees offered explanations and advance notice may be less likely to diminish efforts or engage in dysfunctional behaviors as they wind up their tenure at the plant. Furthermore, in a case study of manufacturing workers, longer notice was associated with a lower incidence of joblessness and lower likelihood for the

workers to suffer from depression and alienation (Zippay, 1993). Practically, these suggestions can be implemented with little cost or planning; advance notice exists as part of the communication plan and managers can engage in role playing to help them respond to the unique concerns of each employee while delivering a consistent message across employees.

Other research, however, suggests that advance notice provides opportunities for sabotage and exacerbates early turnover among employees (Tang & Crofford, 1999). Working with Human Resources, management might develop a list of potential high risk employees, including supervision and management. Personnel known to have financial problems, no apparent life outside work, couples who are both employed in the facility, as well as the "odd employee" would be a starting point for evaluating potential problem personnel.

Such dysfunctional behaviors may be mitigated by assigning employees tasks immediately that help them prepare for the shutdown (LaRusso, 1989). Focusing them on essential tasks for the shutdown in addition to focusing the employees on the mental fact that the closure will happen also helps shorten their emotional adjustment period (LaRusso, 1989).

Another area for which the company may have concern is in how assets will be handled. Admired companies often tout that their people are their most important asset. Interestingly, plant closures make this mantra even more compelling; key personnel should be retained and transferred to other jobs in the organization (LaRusso, 1989).

For example, GE offered preferential hiring at other GE locations for displaced workers (Tang & Crofford, 1999). In order to act expeditiously, however, the company needs a current inventory of its employees' talents via an updated HRIS, talent inventory databases, or other easily-accessible sources.

These instruments, commonly used in career management, are especially important in the instance of a plant closing since they can help select the applicant pool or the candidates for positions in other parts of the company. Additionally, updated performance appraisals can assist in placement activities.

For the many employees who are not willing to relocate to another geographic area (Tang & Crofford, 1999) and for those whose skills are not needed in the company, an outplacement center can be useful for employees to find other work elsewhere; a majority of employees value outplacement services, while the organization can avoid paying as much in supplemental

unemployment benefits (Tang & Crofford, 1999). In addition, companies may offer retraining benefits with monetary incentives (Tang & Crofford, 1999). These options address the angst experienced by the community and contribute a more positive perception of the company in the community. Providing employees with time off for job searching or interviews is another way the company can help to ease the pain, while showing a commitment to the human assets.

Although employees may be negatively impacted by the plant closure, the company can demonstrate it still cares about the employees by focusing managers on employee issues related to "health, safety, and environmental activities" (LaRusso, 1989, p. 61), which normally fall into the HR area of responsibility (Rynes, 2004). Care should be taken, though, to diminish the likelihood that employees will file claims that allow them to remain on the payroll for additional financial security or to retaliate against the company for deciding to close the plant (Jennings, 1996).

Jennings (1996) suggests, for instance, that companies prepare detailed job descriptions, have employees sign separation questionnaires attesting to their injuries, and send exiting employees for medical exams to decrease the likelihood of employees filing false claims for Workers' Compensation payments.

Offering a "safety bonus" is another consideration for focusing on closing with minimal injuries. Paying employees a bonus for completing their employment accident free might help improve awareness and caution, while deterring employees from considering the "benefit" of work-related injuries.

If it is true that people are deemed a source of competitive advantage in an organization, then closing the facility should not change this view of employees' importance in the organization. Similar to other resources, human resources can be inventoried and redeployed; however, HR activities such as providing advance notice, outplacement activities, and career management options may help preserve the employee-employer relationship and reduce the emotional ramifications of closing a facility.

Table 2. Teaching notes - Human Resource Management

Instructional direction	Student understanding	Discussion or simulation
Recognize that as part of the closing activity, security becomes an increased activity, and that the human resources function typically takes on this responsibility of assuring increased security.	Students should have an understanding that in the process of closing a plant, management should be prepared to respond and address potential negative employee reactions to the plant closing.	Lead a discussion     based on the     appropriate ways to     handle negative     employees, and to     address the need for     increased security so     that employees are     not threatened or     offended by the     actions.
Discuss the potential need for the students/future managers to provide coaching to employees who will no doubt be displaced at the closing.	Students should have a working knowledge of the hiring process so that they are ready to work with displaced employees when the time comes to help them make a smooth transition.	Have the students     role play the     coaching position in     assisting employees     in preparing for job     transitioning.     Include in this     activity interviewing     simulation so that     students can practice     interviewing     potential job     candidates as well as     being interviewed.

# 4. LEGAL ISSUES AND CONSIDERATIONS

When planning for a plant closing, the first law that comes to mind is the Worker Adjustment and Retraining Notification Act. However, there are a number of other federal and state statutes that impact the closing of a plant. Some are related to mass layoffs and some to particular gradual closures that result in a series of smaller layoffs, rather than one mass layoff.

# 4.1. Worker Adjustment and Retraining Notification Act ("WARN")

The WARN Act is the federal statute requiring employers who employ 100 or more employees to provide notice of a "plant closing" or "mass layoff" to (1) all affected employees or the labor union representing unionized employees; (2)

the applicable state dislocated workers agency, and (3) the chief elected official of the local government in the area in which the plant is located.

"Plant closings" include both permanent and temporary shutdowns of a single employment site or an operating unit within a single employment site that results in 50 or more employees being laid off during any 30-day period. The plant closing provisions are also triggered when incremental layoffs result in an aggregate of 50 or more employees being laid off during a 90 day period. Consequently, if a company laid off 20 employees in June, 20 employees in July and 20 employees in August as it moved towards plant closure, WARN would be triggered.

A "mass layoff" covers situations when neither a plant nor an operating unit within a plant are completely closed, but, nevertheless, at least 50 employees lose their jobs and the total employment loss results in 33 percent or more of the workforce being laid off during any 30-day period. "Mass layoffs" also include any employment reduction of 500 or more employees. Exceptions to the notification requirement are made for unforeseeable business circumstances, faltering companies, natural disasters, and temporary facilities.

A number of state and local governments have enacted their own plant closing requirements. Some of those laws cover smaller workforce reductions and some have more onerous notice requirements.

#### 4.2. National Labor Relations Act ("NLRA")

If the employees of the facility being closed are represented by a labor organization, the National Labor Relations Act will also have an impact. Under the NLRA, a unionized employer is required to bargain with the employee's union regarding the effect of the plant closing on the bargaining unit. In addition, employers may be required to bargain with the labor representative about the decision to close the plant.

If the employees of the closing facility are in the process of organizing a union or have recently voted to be represented by a union, the employer must also be mindful of the rules prohibiting "runaway shops." Under the law, a company may completely shut down *all* operations to avoid unionization. However, an employer may not close one location to avoid unionization, then open another location or move the work of the closed facility to another facility. Similarly, a multi-facility employer cannot close one of its facilities in which

union organizing has occurred in order to send an anti-union warning to the employees of the company's other facilities (Darlington, 1968).

# 4.3. Employee Retirement Income Security Act ("ERISA")

The Employee Retirement Income Security Act governs retirement and welfare plans offered by private sector employers. The law prohibits employers who offer covered benefits from retaliating against employees who are eligible for benefits and from interfering with an employee's rights to benefits under a covered plan. Courts have held that selecting a plant for closure in an effort to keep employees from becoming eligible for benefits violates ERISA (Millsap, 2004).

ERISA also imposes fiduciary duties on employers sponsoring benefit plans. Courts have concluded that this fiduciary duty may include notifying employees of impending plant closures to allow employees to make informed decisions on whether to accept early retirement or related benefits. In addition, ERISA will impact the rights of employees to collect funds from the company's pension plan following a plant shutdown (Brown, 1980).

Finally, if the plant closure results in an employer ceasing to contribute to a multi-employer pension fund, the employer may face withdrawal liability pursuant to the Multi-employer Pension Plan Amendments Act of 1980.

#### 4.4. Older Workers Benefit Protection Act ("OWBPA")

If an employer attempts to get employees to sign releases in connection with the plant closing, the employer must be aware of the Older Workers Benefit Protection Act. Under that statute, to obtain a release of potential age discrimination claims from a worker who is over the age of 40, the employee must be given compensation to which he would not otherwise be entitled and the release agreement must (1) be in writing, (2) specifically mention the Age Discrimination in the Employment Act, (3) advise the employee to consult with an attorney, (4) give the employee at least 21 days to consider the agreement (45 days if the agreement is part of a termination incentive program), and (5) give the employee seven days to revoke the agreement after signing.

In addition, if the employer provides an early retirement incentive in advance of the plant closing, the employer will be required to provide employees with additional information, including the class of employees eligible for the incentive and any potential adverse action if an employee declines the incentive.

# 4.5. Federal and state discrimination statutes

If an employer is completely closing a plant on a certain date, the closure is unlikely to cause concern under federal or state discrimination laws. However, if the plant closure is achieved over time through a series of rifts, employers must consider the methodology used for RIF selections and the impact of that methodology on protected classes under federal and state discrimination law, particularly Title VII of the Civil Rights Act of 1964 and the Age Discrimination in Employment Act of 1967.

#### 4.6. Internal Revenue Code

The plant closing decisions must take into account potential tax implications under the Internal Revenue Code, particularly tax implications arising from the employer's employee benefit plans and any severance agreements entered with employees as part of the reduction-in-force process.

# 4.7. Environmental law and other regulatory concerns

Finally, depending upon the industry, employers should be aware of potential issues arising under federal and state environmental laws or specific regulatory schemes applicable to a particular industry.

Table 3. Teaching notes - Legal Issues and Considerations

Instructional direction	Student Understanding	Discussion or simulation
Advise students to seek out and take advice from legal professionals when dealing with the legal issues related to closing the plant.	Students should be aware that in closing, it is not better to seek forgiveness than to ask permission.     Activities related to closing the plant are often dictated by law, and managers must understand this.	Look for video content on the internet that discusses legal issues related to plant closings, or better yet, bring in a business law professor or a lawyer who can bring direct knowledge to the students.

- Discuss the potential need for the students/future managers to provide coaching to employees who will no doubt be displaced after the closing.
- Students should have a working knowledge of the hiring process so that they are ready to work with displaced employees when the time comes to help them make a smooth transition.
- Have the students role play the coaching position in assisting employees in preparing for job transitioning. Include in this activity interviewing simulation so that students can practice interviewing potential job candidates as well as being interviewed.
- Take this opportunity to lead a discussion of other legal issues that the operations management student may face in operating a facility such as sexual harassment, hiring and firing practices, and union organization.

# 5. CLASSROOM ACTIVITIES RELATED TO PLANT CLOSINGS

While there are an infinite number of potential classroom activities that can provide students with a better understanding of plant closings and their roles as managers, we present but a few here, and encourage the reader to rationalize additional methods.

# 5.1. Group role playing

One activity would be to break the class into small groups, each representing the different personnel groups of the operation (management, human resources, labor, legal council, etc.). Have each group discuss and formulate an action plan based on their role in the operation related to the pending closing. Then have the groups interact, so that as each presents its plan of action, the other groups react with plans of their own. This type of group

interaction can teach students not only to develop a plan, but also to be ready and able to adapt the plan in response to the actions of others in the process.

#### 5.2. Simulation

Another activity to help students better prepare for understanding and dealing with plant closings is simulation. Using computer simulation, probabilistic models for each decision can be simulated, allowing the student manager to face the uncertainty of labor reactions, customer and supplier relations, and potential legal aspects of the closing. Through simulation, the students can practice dealing with the uncertain outcomes, and making decisions based on their surroundings.

Other activities related to teaching plant closing practices might include assigning the students research projects to find what real companies have done in handling plant closings, having students prepare plant closing plans related to how they would handle the operational aspects of closing a plant, or simply having an open discussion to get students to present their opinions and ideas related to handling a plant closing.

#### 6. CONCLUSIONS

While plant closings tend to have a negative impact on most involved, operating the closing facility must be handled with a combination of strategy, compassion, and caution. Taking into consideration all of the potential operational issues and concerns, the operations manager must consider all potential problems and issues related to the closing, and make strategically planned decisions to minimize cost and grief, while maximizing the effectiveness of what is typically an inefficient and ineffective work force.

By incorporating these elements essential to closing the plant within a general operations management text, we are confident that future generations of operations managers will be better prepared to handle the tough decisions related to closing a facility, resulting in an easier transition for the employees, while minimizing the losses for the company.

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# PRAKTIČNI PRISTUP PROBLEMATICI ZATVARANJA POGONA U DODIPLOMSKOJ NASTAVI IZ OPERACIJSKOG MENADŽMENTA

#### (studija slučaja)

U kontekstu nedavne ekonomske krize, pristupi upoznavanju i podučavanju metoda i prakse povezanih sa zatvaranjem pogona, u okviru programa operacijskog menadžmenta poslovnih škola, već su odavno zastarjeli. Udžbenici operacijskog menadžmenta ne pružaju nikakav ili tek vrlo oskudan sadržaj problematike zaustavljanja poslovanja i zatvaranja pogona, zbog čega se ova tema često isključuje iz sadržaja ovog kolegija. Sadržaji koji najčešće nedostaju u udžbenicima operacijskog menadžmenta odnose se na poglavlje koje bi obradilo proces zatvaranja pogona, kao i vježbe, odnosno aktivnosti, kojima bi se ilustrirala primjena ovog procesa. U ovoj se studiji slučaja iznose ključni elementi koje bi trebalo uključiti u udžbenički sadržaj, a u što su uključeni: djelovanje na zaposlenike (i njihovo ponovno obučavanje), (američki, op. pred.) pravni propisi koji se odnose na obavještavanje zaposlenika o zatvaranju pogona i njihov status u području mirovinskog i zdravstvenog osiguranja, oslobađanje od zaliha i kontrolu kvalitete. Razvijene su i bilješke za izvedbu predavanja za svaki od elemenata koji se podučavaju, kao i naputci za aktivnosti studenata, koje se odnose na ovu problematiku. Pritom se koristi najbolja poslovna praksa, kako bi se studentima prikazalo upravljanje poslovanjem pogona u ovako teškoj poslovnoj situaciji, pri čemu se naglašavaju aktivnosti koje bi proizvodni menadžer trebao započeti, koje treba održavati, odnosno aktivnosti koje treba zaustaviti. Pritom se koristi iskrena i praktična perspektiva.