

LEADING AND MANAGING: GETTING YOUR PERSONAL HOUSE IN ORDER

The real contest is always between what you've done
and what you are capable of doing.

You measure yourself against yourself and nobody else.

(Geoffrey Gaberino, Olympic swimmer)

Before you, as a student of engineering or as an entry-level person, can be broadly involved in the managing and leading functions discussed in lecture 1, you must lead and manage yourself. That is, whether on a day-by-day or year-by-year basis, what do you want to accomplish and how are you going to do it?

Consider a balance between success and significance as a way of thinking about your career. Define success as that which benefits you and perhaps your family or other dependents. Success indicators include income, net worth, and material possessions.

In contrast, significance is your positive impact on others. Success is about you, or me, and our “stuff” while significance is mostly about others.

British Prime Minister Winston Churchill described the difference between success and significance when he said “We make a living by what we get and we make a life by what we give.” Both success and significance are important. A comfortable, financially-secure lifestyle may be high on your agenda. But, you may also seek significance, may want your life to mean more than successfully accumulating “stuff.” If you resonate with the success – significance career and beyond model, then begin pondering the success – significance balance that suits you.

Keeping your personal house in order requires self-discipline.

2.1 Time Management: But First Roles and Goals

Time is a Resource

College students and young, harried practitioners often claim they “don’t have the time” as though they have less time than other people. Each person has 24 hours a day and 365 days per year. Between college graduation and retirement at around age 65, you have about 400,000 hours at your disposal. Some engineering and other technical program graduates will use their time wisely to achieve much in their personal, family, financial, community, and professional lives. They will

achieve their desired mix of the previously-mentioned success and significance. Others will fill many of those 400,000 hours with mediocrity. These individuals might live their last years regretting that they didn't do more with their gift of time. "We must all suffer one of two pains: the pain of discipline or the pain of regret," according to motivational speaker Jim Rohn, "discipline weighs ounces while regret weights tons." Without careful management, much of the time allotted to each professional is lost forever.

Go to the article below for more on the "Regrets of the dying"

- <https://bronnieware.com/blog/regrets-of-the-dying/>

Roles, Goals, and Then, and Only Then, Time Management

Before focusing on the speed of your life, think about its direction. In other words, first choose your roles, then set goals for each. Then, and only then, focus on managing your time.

Adopt a holistic approach. Select your key roles in life, at least for the foreseeable future. Then establish goals and create action plans that will help you fulfill those valued roles. Mahatma Gandhi, Indian nationalistic leader and nonviolence advocate, stressed the need to identify key roles and act on them when he said: "One man cannot do right in one department of life whilst he is occupied doing wrong in other departments. Life is one indivisible whole."

Celebrate your goals and your efforts to achieve them. Your goals should be a source of pleasure in that they give added meaning to your life.

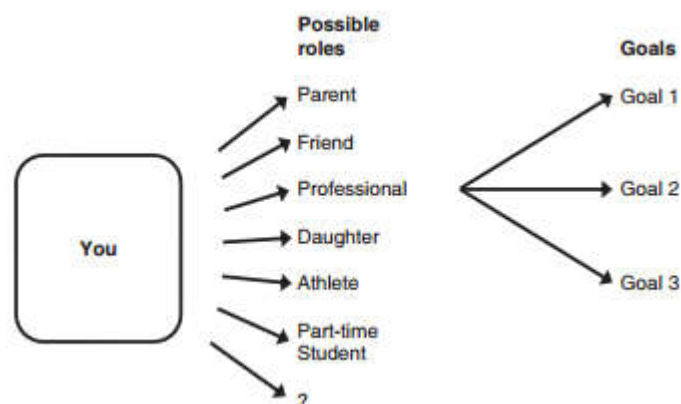


Figure 2.1 First choose your desired roles, set goals for each, and then focus on time management.

Clearly, you can establish goals without first defining roles. The danger is that you will inadvertently omit or diminish important segments of your being. You risk incurring deep regrets that cannot be remedied. In contrast, the suggested “roles—then goals” process leads to a balanced life.

Time Management: The Great Equalizer

While talent and intelligence will influence the student and the entry-level technical person’s success or failure, how each uses his or her allotment of time will have a profound influence. As management expert Peter Drucker said, “time is our scarcest resource and unless it is managed, nothing else can be managed.” Unlike talent, intelligence, wealth, and other personal attributes and assets, time is distributed equally. Accordingly, effective use of time can be the great equalizer.

Regardless of your talent, intelligence, and other personal attributes, you can be equal to others if you thoughtfully manage your use of time. You have the power, if not the responsibility, to carefully manage how you use your time in fulfilling your chosen roles and pursuing your chosen goals. Lives are built on the use of minutes, hours, and days. No one can get more time, but anyone can do more with what he or she gets.

In a narrow sense, time management means getting more productivity out of a person’s allotment of time by efficiently handling communication, telephone calls, correspondence, meetings, and various tasks and responsibilities. In a broad sense, time management means going well beyond these practical tools and techniques and building a meaningful life in accordance with your desired roles and supporting goals.

How the young professional decides to use his or her minutes, hours, and days determines how that young professional will spend his or her life. If you don’t decide how to use your time, be assured that others will decide for you.

Time Management Tips: The ABCs

- a) Define roles, set goals, and determine action items.
- b) Plan each day
- c) Act immediately and constructively
- d) Bring solutions—Accompany each problem with at least one solution

- e) Identify and use your best time
- f) Organize your space—Create an efficient work environment
- g) “Chain” yourself to the task until it is done
- h) Distinguish between efficiency and effectiveness
- i) Create professional files
- j) Keep related materials together
- k) Meet only when necessary
- l) Apply the 20/80 rule
- m) Break projects into parts
- n) Use discretionary time wisely
- o) Avoid telephone and email tag
- p) Delegate
- q) Keep door closed but access open
- r) Write it down—Document-document-document
- s) Network
- t) Minimize “toxic” situations
- u) Use travel and waiting time productively
- v) Meet with yourself
- w) Log your time
- x) Adopt a holistic philosophy
- y) Guarantee small successes
- z) “Goof off”

Define Roles, Set Goals, and Determine Action Items:

It is the foundation of your time management and warrants repetition. Conceptualize, refine, and write-out monthly, annual, and multi-year goals for personal, family, financial, community, and professional areas and affairs. Clear goals, consistent with your selected roles and quantified to the extent feasible, are crucial to charting and navigating the seas of a business and professional career.

Think of your daily activities as falling into one of the four quadrants shown in Table 2.1. As suggested by the four quadrants, you can easily get diverted, goals keep you on track. So does consciously thinking about what you are doing, how productively you are using your time.

Clearly, you should try to spend most of your time professionally, and perhaps beyond, in the first, that is, important row.

Table 2.1 Time can be categorized into four quadrants on an urgency and importance basis.

| | Urgent (U) | Not Urgent (NU) |
|---------------------------|-------------------|------------------------|
| Important (I) | | |
| Not Important (NI) | | |

Consider these examples of one possible activity for each of the four quadrants:

- Example of I-U: “Boss” says do this now.
- Example of NI-U: The office “whiner” drops in to complain, to play “ain’t it terrible” or “did you hear what they are doing now?”
- Example of NI-NU: Reading junk snail mail or junk email.
- Example of I-NU: Completing an action item related to one of your goals.

Perhaps the acronym SMART will help you formulate your goals. Each goal should be:

- Specific
- Measurable—cast in quantitative terms if at all possible
- Achievable—while the goal will stretch you, you must be able to accomplish it
- Relevant—the goal is appropriate for your chosen roles and, as appropriate, your organization’s current circumstances
- Time-framed—you establish a schedule for achieving the goal or its components.

Don’t assume that friends, colleagues, professors, supervisors, supervisees, and others know your goals by virtue of working with or near you. Similarly, thinking that all good things will come your way if you simply “put your nose to the grindstone” is naive. Rather than being timid or overly modest about professional and other goals, adopt a proactive communicative approach and then be prepared to follow through as opportunities arise.

Plan Each Day

Plan each study or work day, prioritizing tasks, in writing, according to importance. Such planning, which might be done the evening before or first thing in the morning, will require less than 15 minutes of time but be highly productive.

He who every morning plans the transactions of the day
and follows that plan carries a thread that will guide him
through the labyrinth of the most busy life.

The orderly arrangement of his time is like a ray of light
which darts itself through all his occupations.

But where no plan is laid, where the disposal of time is
surrendered merely to the chance of incidence,
chaos will soon reign.

~Victor Hugo, French writer and Politician

This is how Benjamin Franklin, organized his day:

<https://www.theladders.com/career-advice/lessons-from-benjamin-franklins-daily-schedule-that-will-double-your-productivity>

(Benjamin Franklin is best remembered as one of the Founding Fathers of the United States, but he achieved much more in his lifetime. During Franklin's 84 years alive, he invented the lightning rod, made significant discoveries in physics and population studies, wrote best-selling books, composed music and played the violin, harp and guitar at a high level, founded many civic organizations, including the University of Pennsylvania in Philadelphia, Pennsylvania)

| | | |
|--|----|---|
| The morning question, What good shall I do this day? | 5 | Rise, wash, and address <i>Power- ful Goodness</i> ; contrive day's busi- ness and take the resolution of the day; prosecute the present study; and breakfast. |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |
| | 1 | |
| | 2 | |
| | 3 | |
| | 4 | |
| Evening question, What good have I done today? | 5 | Work. |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |
| | 1 | |
| | 2 | |
| | 3 | |
| | 4 | |
| | 5 | Read or overlook my accounts, and dine. |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |
| | 1 | |
| | 2 | |
| | 3 | |
| | 4 | |
| | 5 | Put things in their places, sup- per, music, or diversion, or con- versation; examination of the day. |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |
| | 1 | |
| | 2 | |
| | 3 | |
| | 4 | |
| | 5 | Work. |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |
| | 1 | |
| | 2 | |
| | 3 | |
| | 4 | |
| | 5 | Sleep. |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| | 12 | |
| | 1 | |
| | 2 | |
| | 3 | |
| | 4 | |

Figure 2.2 Benjamin Franklin's Daily Schedule

Act Immediately and Constructively

After interacting with someone, try to immediately do something constructive. For example, after reading an e-mail, hanging up after a telephone conversation, or saying good-bye to someone who visited

you, take a specific action such as scheduling a meeting, drafting an email or memorandum, obtaining a file, or asking a colleague for information. Rather than only making a note to do some tasks and adding that note to your "to do" pile, try to take one meaningful step.

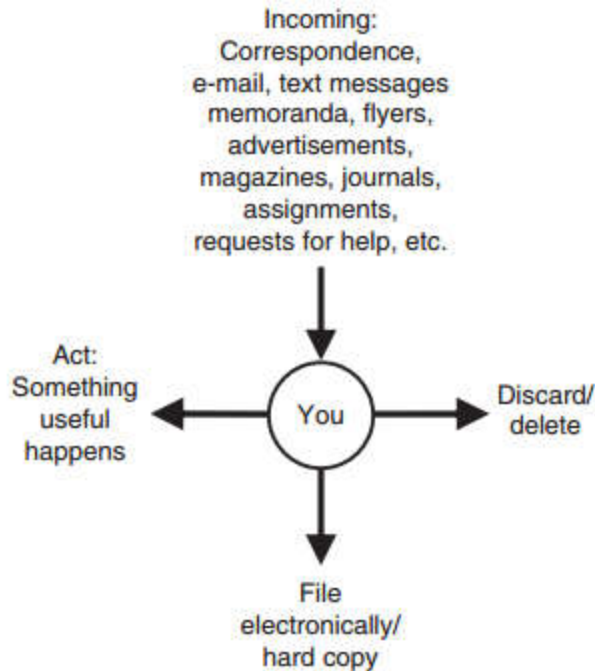


Figure 2.3 Act immediately and constructively.

Bring Solutions—Accompany Each Problem with at Least One Solution

Make sure that you provide solutions when you present a problem to your supervisor.

Insist that subordinates bring solutions when they bring problems. Anyone who is perceptive enough to identify a problem is capable of suggesting at least one solution to the problem.

Identify and Use Your Best Time:

Identify your best time of day in terms of energy level and intellectual and creative ability, and try to schedule your most challenging study or work tasks into that time period. Some individuals are morning people or larks, some are night people or owls.

Organize Your Space—Create an Efficient Work Environment:

Examine the arrangement of your office, cubicle, or other study or work space. Small changes can result, over time, in time saved. For example, consider moving the printer closer to you, putting frequently used reference books and materials within arm's reach, and/or using your desk drawers as “in and out baskets.”

“Chain” Yourself to the Task Until it is Done:

Commit to studying, analyzing, or writing for an hour; calculating for half an hour, or emailing for 30 minutes. Activity is not necessarily progress. The bottom line: Prioritize your tasks and then focus on one task for a significant period of time.

Distinguish Between Efficiency and Effectiveness:

Distinguish between doing things right and doing the right things, giving preference to the latter. Avoid doing useless tasks efficiently. A situation like that often arises because the original need for a report or other action has vanished but the process, which has been well established, is blindly adhered to.

Create Professional Files:

You should have a storage and retrieval system. Please respect the expectations and rules regarding confidential information associated with your employment.

Therefore, beginning in college and continuing into professional practice, develop personal professional files. These files, which will start modestly and are likely to include digital and hard copy items, might be set up based on an initial set of technical and non-technical categories.

Keep Related Materials Together:

Work out a system to keep all the physical parts of a task or project together as it moves from person to person within an office or between offices.

Meet Only When Necessary:

To the extent feasible, ask or insist that all meetings, begging with your college days, are carefully planned and conducted and that follow-up responsibilities are clearly assigned. This guideline applies to all meetings—including conference calls.

Apply the 20/80 Rule:

Most activities involve input and output, work and results, effort and accomplishments, or other cause and effect relationships.

But each unit of input, work, effort, and cause does not necessarily lead to the same relative result. Some kinds of input, work, effort, and cause are more productive than others. This is the concept portrayed by the 20/80 rule shown in **Figure 2.4 below**. Simply stated, 20 percent of the total input produces 80 percent of the total results. While there is no strong substantiation for the rule in a quantitative sense, the 20/80 rule—also called the Pareto Principle (Covey 1990)—makes intuitive sense.

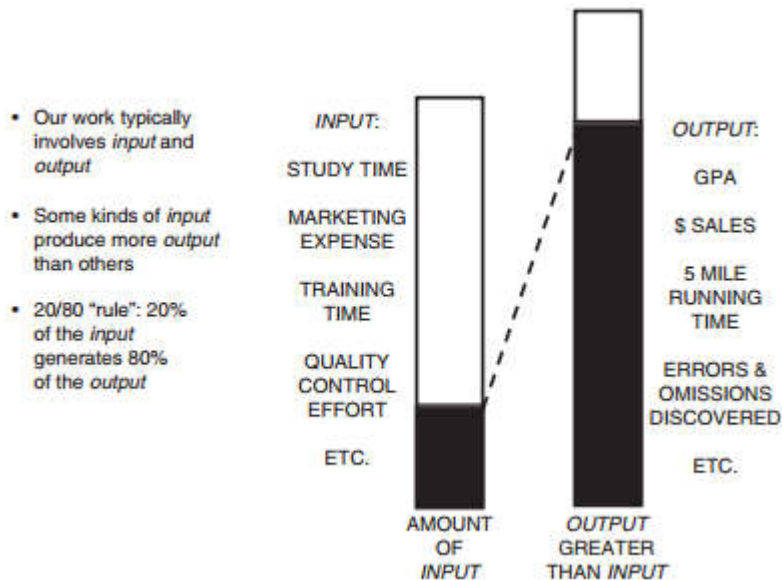


Figure 2.4 Apply the 20/80 rule by searching for and focusing on those inputs that produce the greatest outputs.

Break Projects into Parts:

As a result of an engineering or other technical education, most entry-level professionals have developed an ability to examine complex mechanical, electrical, and other physical systems; identify their components; and understand the interrelationships between them. This analytic skill is transferable and applicable to any complex system regardless of whether it is primarily technical or non-technical in nature.

Use Discretionary Time Wisely:

Let’s take another look at the time-use quadrants (Table 2.1) introduced earlier. One way of looking at the ways you use time in your work environment is to view it as:

- “Boss”-imposed or professor-imposed, such as doing what he or she asks you to do.
- System-imposed, such as completing time sheets and other forms.
- Self-imposed, such as getting into the upper right-hand quadrant while carrying out your various student and employee responsibilities.

Invest some time, if not daily at least weekly, in that third bullet which is another way of describing that upper right important, but not urgent quadrant. Ralph Waldo Emerson, schoolmaster, minister, lecturer, and writer offered this advice: “Guard your spare moments. They are like uncut diamonds. Discard them and their value will never be known. Improve them and they will become the brightest gems in a useful life.”

Avoid Telephone and Email Tag:

Avoid “telephone tag,” the wasteful practice by which two individuals repeatedly place calls to each other but do not connect or in any way exchange useful information. Try to make an appointment for a telephone meeting that you will initiate by calling the other party at the agreed-upon time.

Delegate:

Delegate appropriate tasks, along with the necessary authority, to other capable individuals. Effective delegation, while challenging, can greatly increase your time utilization effectiveness and efficiency and offer organization-strengthening benefits.

Keep Door Closed but Access Open:

Consider adopting, where feasible based on the physical situation and the corporate culture, a closed-door procedure with respect to your office, cubicle, or workspace while implementing an open-door policy with respect to access to you. The closed door procedure doesn’t mean that, if you have a door, you literally should keep it closed. It means you should discourage unnecessary interruptions.

Write it Down—Document-Document-Document:

Be sure that you or others document activities such as telephone or face-to-face conversations, meetings, and field reconnaissance. The time you or others invest in documentation, may seem,

when you do it, like a poor or marginal use of valuable time. However, going back later and trying to remember and reconstruct what happened days, weeks, and months earlier is a greater time sink.

If possible, keep a personal and office diaries.

Network:

Selectively share goals by reaching out to your network. The same idea applies when you have a need for data, information, and ideas. Use your network to make the best use of your time.

Members of your network are likely to:

- Share material that they think resonates with your interests
- Encourage you when they think you are “down”
- Ask about you when you’ve been out of touch
- Open doors for you—sometimes even when you do not ask
- Share lessons learned with you

Minimize “Toxic” Situations:

While networks, or more specifically, the people within them, can be uplifting, other individuals and groups with whom we interact may sap our enthusiasm and drain our energy. We should try to resolve “toxic” situations and/or avoid the people who cause them.

Use Travel and Waiting Time Productively:

Travel and waiting time offers an excellent opportunity to be productive. Work on whatever project prompted the travel and also move forward on other projects. Besides taking materials to read or projects to work on, the traveling professional should also take appropriate tools and supplies.

Meet With Yourself:

Making appointments with yourself” is a legitimate and effective means of managing your time. Consider meeting with yourself in two modes. One is the prospective mode. Plan your day, week, or next few months. Update roles, goals, and action items. The other mode is retrospective. Reflect on recent events and experiences—good and bad. Possibly write about them. Learn what you can from events, activities, and experiences such as attending a meeting, giving a presentation in a college class, having a proposal rejected, or interviewing for employment.

Log Your Time:

Keep a time log, at about 15 to 30-minute intervals, for several days to a week as a way to identify undesirable patterns or trends in time utilization. Deduce ways to be more effective in meeting your personal goals and the goals of your organization.

Adopt a Holistic Philosophy:

Strive to maintain an intellectual, physical, emotional, and spiritual balance. Creative and innovative ideas tend to occur during transitions from one focus to another, such as from work to play. Adopt a holistic philosophy and resist the sometimes strong tendency, in response to the pressures of the work place, to focus excessively on intellectual activities.

Guarantee Small Successes:

“Set yourself up” for at least one significant success each day. Plan each day to include one or more work-related or other activity that is both enjoyable and likely to be accomplished.

Goof Off!:

Life goes fast—be sure to take some time “off the top” for yourself, the things you like to do, and the people you love to be with.

For example, when you attend that next conference, participate in the sessions and meetings. And also, depending on the geographic location, visit the local tourist attractions. Simultaneously recharge your batteries and learn about people and places!

Key Ideas about Time Management

You have all the time there is. While it is certainly influenced by intelligence, talent, other personal attributes, and luck, the difference between the accomplishments of people is heavily influenced by how those people use their time. Time management techniques and tools are intended to help you get more things done and, even more important, to get the right things done. Your approach to time management should be guided by a compatible set of chosen roles and supporting goals.

2.2 Employment or Graduate School?

As you near completion of your undergraduate studies, consider your options which include, but are not limited to, full-time graduate study and full-time employment. If you have a solid academic

record (B or better), consider attending graduate school in engineering or a related field on a full-time basis immediately after earning your first professional degree.

Another option is full-time employment supplemented with part-time graduate study leading to a graduate degree in engineering, another technical discipline, business, law, or some other profession.

However, the demands of professional practice will sometimes conflict with classes and study. Increased availability of quality web-based education and training will offset some of the disadvantages of part-time graduate study.

Table 2.2 Consider the pros and cons of full-time graduate study and full-time employment options

| | Full-Time Graduate Study | Full-Time Employment |
|-----|---|---|
| PRO | <ul style="list-style-type: none"> • In-depth knowledge • More career choices and enhanced autonomy • Financial support • “Buy” time | <ul style="list-style-type: none"> • Real-world perspective • Income |
| CON | <ul style="list-style-type: none"> • Study “burnout” • Uncertainty of area of specialization • Short-term cost • Reduced number of employment positions for those who earn PhDs | <ul style="list-style-type: none"> • Technical obsolescence • Low probability of returning to school for full-time graduate study |

When making such decisions consider using a tool called, “Balance Sheet Close Decision Making”. Read more by going to this link below:

- <https://www.benardmakaa.com/balance-sheet-close-and-decision-making/>

Even Charles Darwin used a similar tool when deciding if to marry or not. Read more by going to this link below:

- <https://www.benardmakaa.com/marry-not-marry-by-charles-darwin/>

Learn From Potential Employers

The employment search process, which most engineering and other technical program students undertake near the end of their formal education, provides an excellent opportunity to learn about the value of graduate study. In their zeal to fill positions, recruitment representatives of private and public engineering and similar organizations may disparage full-time graduate study, arguing that advanced degrees are not really needed and that you can always earn a graduate degree on a part-time basis. So that you may gain a comprehensive and balanced view of each recruiter's organization, request a list of top people or a chart showing the organization's personnel structure.

Then find out how many of the organization's upper-level personnel hold advanced degrees. Draw your own conclusions regarding the importance of graduate education.

The New Work Environment: Culture Shock?

Demands and expectations change as you move from the world of study to the world of practice. Completing tasks and projects correctly and on time is further complicated by the expectations that the tasks and projects be done within a budget. You may encounter not only new demands and expectations, but find that they are presented with greater intensity. Finally, the rate of change will probably increase.

Little Tolerance for Tardiness

Although a proposal for an engineering or other professional services contract may be creative in its approach and handsome in its presentation, the proposal is likely to be rejected by the potential client if it is delivered after the stated deadline. The excellent job you do on an assignment from your supervisor is likely to be negated if you complete the assignment late. Young professionals who frequently arrive late at meetings, even if they are well-prepared, risk antagonizing their colleagues, many of whom place a high value on their time.

Assignments are Not Graded

Students grow accustomed to professors reading, critiquing, and grading their work. In the professional world, careful reading of all submitted materials is uncommon and constructive written critiques are rare. Teaching, coaching, and mentoring are simply not the principal business of engineering and similar organizations.

You may have derived satisfaction from grades and other academic recognition you received in college rather than from the intrinsic value of the work. Therefore, you may feel unappreciated as you begin working in the profession because the absence of continuous, positive feedback. Worse yet, your self-confidence may waver because you are not receiving frequent direction and affirmation.

Schedules are More Complicated

The daily and weekly schedule of a typical university student is relatively simple in that so much time is blocked out by predetermined activities and events such as classes and meetings or activities of professional, student government, and other campus organizations. Daily, weekly, and monthly schedules in the engineering and business world are much less repetitive than those of the academic world and are more likely to change quickly and dramatically in response to owner, client, customer, and stakeholder needs.

Higher Grooming and Dress Expectations

Engineering and other technical program faculty members should serve as role models and mentors for their students in all aspects of engineering and business including grooming and dress. *Unfortunately, the appearance of some professors and instructors falls below the standard of the world of professional practice.* This exacerbates the grooming and dress problem for some professional program students. The professional and business community has little tolerance for inappropriate grooming and dress, although its expectations are rarely explicitly communicated. Accordingly, the young professional may lose opportunities and be relegated to secondary tasks because he or she does not understand the importance of personal appearance.

Teamwork is Standard Operating Procedure

Teamwork is becoming standard operating procedure (SOP) in professional practice.

Except for the most trivial planning and design projects, interdisciplinary work and often formal interdisciplinary teams are required. Unfortunately, academia sometimes gives little attention to developing team skills. Students are often pitted against each other in competition for high grade point averages. The resulting individualistic paradigm is not likely to be well-received in the professional practice community.

Expect and Embrace Change

Change is inevitable throughout one's career. Failure to frequently welcome and sometimes lead change will frustrate desires to realize one's potential in the consulting business, industry, government, or academic sectors.

The First Few Months of Practice: Make or Break Time

Success in your first position will depend on a blend of technical and non-technical attributes; you will need to draw on a broad range of KSAs.

Recognize and Draw on Generic Qualities

Appreciate and draw on the valuable generic qualities you should have developed as part of the process of earning an engineering or other technical degree. These qualities are:

- The ability to work hard and exert intense effort. For example, the typical engineering student is required to successfully complete significantly more—and more demanding—courses or credits per year than the majority of the students at a university. Completion of an engineering or similar rigorous degree suggests the student's strong work ethic.
- Persistence—continuing in spite of difficulty, being resourceful and ingenious, and having the ability to see opportunities where others see problems.
- A high degree of analytic ability including skills such as understanding complex processes and systems, identifying components of those systems, understanding the relationships between components, determining the cause of problems or failures, conceptualizing and developing alternative solutions, comparing options, and selecting the best course of action, and implementing the solution.

- Broad and effective communication skills including listening, speaking, writing, and using mathematics and graphics.

Guard Your Reputation

Unlike craftsmen, who are typically judged on material products such as paintings and pottery, engineers and other technical professionals are judged by the credibility of their advice, which is closely tied to their reputation. A client of a technical professional is often not qualified to judge the advice or recommendations of the professional; however, he or she is capable of judging the quality of the professional. Minister and writer Ralph Waldo Emerson said: “What you are . . . thunders so that, I cannot hear what you say . . .” Clients, owners, customers, and the public often cannot “hear” or fully understand what engineers and other technical professionals say, but they can and do judge character and use it to value and trust—or devalue and mistrust—the professional’s advice and recommendations.

Personal reputation, like a hand-crafted crystal vase, takes a long time to create and once damaged, might never be repaired. Tell the truth. Keep your word. Give credit for ideas and information. Do your share. Don’t blame others. Accept responsibility for your errors and, to the extent feasible, correct them.

As bluntly stated by the Roman statesman Cicero, “*A liar is not believed even when he tells the truth.*” One seemingly harmless way in which a young person’s personal reputation may be tarnished is failing to keep what appear to be small promises. For example, you meet someone at a local meeting of your professional society, you exchange business cards, and you promise to send him or her an article about a common interest. But you forget. Or you run into an acquaintance whom you have not seen for some time, talk briefly, and agree you should get together for lunch. You offer to make arrangements. But you forget. Although individual instances like the two cited here might be considered harmless oversights, a series of them will damage your credibility.

Learn and Respect Administrative Procedures and Structure

In the first few days of employment, you are likely to be deluged with forms, written procedures, policy statements, and information about how the organization is structured and how it functions. There isn’t a form that can’t be refined or a procedure that can’t be improved. Perhaps, after you are well-established in the organization, you will want to make constructive comments about

administrative policies, structure, and processes. At the outset, however, you should focus on learning and respecting the established policies, structure, and processes. Focus on doing your assignments well

Complete Assignments in Accordance with Expectations

Regardless of how unimportant or trivial initial assignments may seem, assume that your supervisor knows what he or she is doing. Some of the simple mechanical tasks you are asked to do may, in fact, be tasks typically assigned to technologists, technicians, or other paraprofessional or support staff. Your supervisor may give you these assignments simply because the work has to be done and you are readily available.

Or, your supervisor may be assigning routine, simple tasks to help you develop a comprehensive understanding of the variety of work done in the organization. He or she may be grooming you to assume responsibility for managing that work.

Get Things Done

What and whom you know are secondary to how you utilize what and whom you know to make good things happen. Take the initiative to start an assignment and keep it going. Don't wait for someone to tell you what to do next—decide for yourself or ask. Be resourceful by seeing opportunities in problems and, at minimum, learning from them. Be persistent; don't let setbacks become roadblocks.

As you gradually earn a reputation for meeting expectations and getting things done, reflect on the KSAs that have enabled you to be successful. Also analyze what KSAs need work. Then, in the spirit of continuous personal growth and ongoing contribution to your organization, ask for even more varied and/or challenging tasks.

Trim Your Hedges

Develop the habit of answering questions in a positive manner and stating your findings without excessive qualifications. What you write and say should be in the context of the expected or actual audience. For example, do not begin the answer a question about the required size of an electric motor with, "If I did the calculations correctly . . ." You are responsible for doing the calculations correctly. A qualified answer such as "Based on the limited field data, I believe that there will be

no foundation problems,” might be an acceptable qualification in a conversation with professional peers who understand the complexity of your work, but is not likely to be appropriate in a presentation to a non-technical client. Overly qualifying statements and responses on technical matters beyond your audience’s area of expertise is nonproductive. Listeners may perceive your hedges as a lack of competence, confidence, or commitment.

The tendency to overly-qualify statements and responses suggests inadequate preparation, lack of ability, low self-confidence, or insensitivity to colleagues, clients, owners, customers, and stakeholders and detracts from the performance of the young technical professional. If not rectified, this tendency will interfere with professional advancement within the organization. The fact that you are well-prepared, have ability, and are confident is irrelevant if you are perceived to be otherwise. Perception is fact. When explaining or reporting the results to others, be very sensitive to the nature and interest of the audience. Speak in a simple, declarative, and brief fashion unencumbered with inappropriate caveats.

Keep Your Supervisor Informed

Given the pressure of their responsibilities, many supervisors manage by exception. That is, you are unlikely to hear from them unless your performance is unsatisfactory, is exemplary, or if they have a new assignment for you. These types of management by-exception individuals will probably expect you to function in a similar fashion, especially in your reporting to them. Determine their preferred mode of operation and function accordingly. If you are working with a management-by-exception individual, keep that person informed of the status of your assignments, particularly if the task or project is encountering problems that may have consequences for your supervisor and others.

Speak Up and Speak Positively

In addition to asking questions to help you quickly become a productive member of the organization, also gradually begin to offer suggestions when you see what appears to be a better way of doing things. Being new to an organization may be considered a disadvantage, as you have much to learn about the organization and the tasks you are given. But, in a sense, as a newcomer especially from another employer, you have an advantage because you are able to take a fresh, relatively unencumbered look at the organization and your assignments.

Dress Appropriately

Dress and grooming significantly affect the professional success of any young professional. Strive to be well groomed and attractive at all times from the top of your head (e.g., clean, trimmed hair) to the bottom of your feet (e.g., clean, polished shoes).

Appropriate dress and immaculate grooming are, of course, not sufficient, but they are absolutely necessary. While it is true that a person has a right to dress as he or she pleases, it is also true that others have a right to react as they wish to that person's dress and grooming.

The usually unwritten definition of what constitutes acceptable dress for advancing young professionals varies from organization to organization. The extremes range from dark-colored, traditional style suits for men and women to jeans and sport shirts.

To determine the appropriate dress for your organization, observe individuals one or two levels above you in the organizational structure.

Hone Communication Ability

Look for opportunities to develop your communication knowledge and skills. For example, offer to write the minutes for a meeting. As a result, you will probably find that, in addition to honing your writing skills, you obtained the best understanding of the ideas and information exchanged at the meeting. For similar reasons, offer to draft a letter, e-mail, or report that will be eventually sent to one of your organization's clients, customers, or stakeholders. Pursue opportunities to write papers about your work and then present them at meetings and conferences.

Volunteer to make oral presentations to colleagues; clients; customers; and student, community, and professional groups. Every time you prepare for and deliver an oral presentation, you have the opportunity to improve on a skill that is highly valued within the engineering profession and society.

Seize Opportunities for You and Your Organization

Luck results when opportunity meets preparation. You certainly will not be successful solely on the basis of luck. On the other hand, luck opens windows of opportunities, often for only a fleeting moment. As written by Shakespeare in Julius Caesar, "There is a tide in the affairs of men, which, taken at the flood, leads onto fortune; omitted, all the voyage of their life is bound in the shallows

and miseries. On such a full sea are we now afloat; we must take the current when it serves or lose our ventures.”

If you see those opportunities and have the courage to seize them, you and your organization may benefit.

Choose To Be a Winner

Most externally-imposed situations are neutral, that is, they are neither inherently “good” nor inherently “bad.” They are what we make of them. While we cannot control much of what happens to us, we can choose the attitude of our response.

Many apparent problems are actually opportunities in disguise. For example, assume you are asked to work long hours for several days to correct calculation errors made by a recently released employee. You could choose to view this as an unfair imposition, or you may choose to develop a spreadsheet or computer program that could be used not only for this assignment, but also in the future to minimize errors and reduce the amount of time necessary to do calculations.

The longer I live, the more I realize the import of attitude on life.

Attitude, to me, is more important than facts.

It is more important than the past, than education,

than money, than circumstances,

than failure, than successes,

than what other people think or say or do.

It is more important than appearance, giftedness, or skill.

It will make or break a company . . . a church . . . a home.

The remarkable thing is we have a choice every day

regarding the attitude we will embrace for that day.

We cannot change our past,

we cannot change the fact that people will act in a certain way.

We cannot change the inevitable.

The only thing we can is play on the one string we have,

and that is our attitude.

I am convinced that life is 10 percent what happens to me and

90 percent how I react to it.

And so it is with you . . . we are in charge of our attitudes.

~Charles R. Swindoll, Pastor and Author:

Recognize that individual and group attitudes, whether they are predominately positive or negative, are contagious in organizations. Unfortunately, negativism appears to move through an organization with greater ease and speed than positivism.

However, positivism can permeate an organization if a few people at all levels choose to take a winning, rather than losing, perspective and course of action.

2.3 Managing Personal Professional Assets:

Building Individual Equity

Personal Professional Assets

By virtue of individual talents, education, and experience, each young engineer or other technical professional has significant value to society. In contrast with your financial assets, many of which can be measured to the penny, the value of your professional assets defies quantification. In a narrow sense, individual professional assets or personal professional equity might be valued as the present worth of the projected stream of future earnings. In a broader and more accurate sense, the young technical professional's assets are measured by the actual good accomplished and by all the good a person has the potential to accomplish through conscientious use of his or her talents, education, and experience.

Like personal financial assets, personal professional assets can appreciate, remain level, or decline.

Annual Accounting

Beginning as a student, appraise your professional assets at least once a year, perhaps as part of a resume update exercise. What new areas of technology have been mastered? What new managing and leading techniques were used? What new concepts, ideas, or principles were studied? What new skills were acquired? What new challenges and responsibilities were accepted? What new opportunities were seized? What new risks were taken? What knowledge was shared with

professional colleagues? What new contributions were made? In what ways have you been a “good and faithful servant” with talents?

While experience is valuable, too much of one kind of experience can hamper your growth. As you review annual accountings of your professional assets, will you find several years filled with new experiences or one year of experience repeated several times? Resist the temptation to settle into the comfort of routine.

I will commence my journey unencumbered
with either the weight of unnecessary knowledge
or the handicap of meaningless experience . . .

In truth, experience teaches thoroughly
yet her course of instruction devours men’s years
so the value of her lessons diminishes
with the time necessary
to acquire her special wisdom.

~ Mandino

Careful Management of Personal Professional Equity

Each young professional is gifted with a unique combination of talents. A challenge in the early years of professional life is to discover and develop through reflection, education, and experience, a special set of KSAs and then to dedicate and direct them to meaningful professional work and service. You should commit to managing personal professional assets at least as well as you manage your financial assets.

Continuing Education

Continuing education is an important mechanism for maintaining your personal professional equity. It is also a requirement for continued licensure as a professional engineer in Kenya.

Entry level engineers or other technical professionals have many means available for immediately beginning their individualized continuing education and professional development programs. Examples are internal and external workshops, seminars, and webinars; university classes, offered in the traditional classroom manner or in a distance education mode and possibly leading to one

or more graduate degrees; and, for the very disciplined person, self-study. “Read widely and eclectically, including articles, books, newspapers, and other publications that address a range of topics—technical, historical, economic, social, and contemporary. Consider the goal of reading a book a month” (ASCE 2008).

For a list book recommendations, check my best book recommendations at the “[Books](#)” page, under, “Best Books I have read since 2015”

- <https://www.benardmakaa.com/books/>

Involvement in Professional Organizations: Taking and Giving

In addition to varied and challenging work assignments and continuing education, active involvement in professional organizations is the third way to increase the value of your personal professional equity.

Entry-level professionals should realize that they will derive a satisfying and prosperous living from their profession and, accordingly, ought to give something back to their profession. English philosopher and statesman, Francis Bacon said: “I hold every man a debtor to this profession; from that which man has a course to seek countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament there unto.”

Note the large number of materials that have been produced for your use, usually in the context of professional organizations, such as books, papers, conference proceedings, and manuals of practice. Most of these are created by volunteers who gave something back. How could you not do the same?

The call to be actively involved in professional organizations goes beyond maintaining one’s currency and meeting an obligation. Such participation provides an opportunity for you to enjoy and benefit from the company of leaders. Engineering and other technical professions and their various subdivisions typically have many members but very few doers. The doers are usually committed, creative, ambitious, and accomplished people. The young professional can learn much from associating with them and the “ticket” is a commitment to being actively involved in the work of professional organizations.

Upon joining such an organization, or moving from the student membership status you had in college to the practicing professional status, select one or more types of activities for your involvement and contribution. Besides attending meetings, consider presenting and publishing papers, serving on and chairing technical and non-technical committees, helping arrange and run meetings and conferences, and serving as an officer.

As noted, presenting and publishing papers is one way to be actively involved in a professional organization. Personal and organizational benefits of individual or co-authored papers include:

Improved writing and speaking ability, which is directly and immediately transferable to many aspects of your professional and personal life.

- Increased confidence as a result of interacting with peers
- Expanded visibility for your organization with emphasis on its accomplishments and abilities
- Earned membership in networks of leaders, which provides quick access to assistance when needed
- Returning something to the profession

Licensing

A system of licensing engineers and certain other technical professionals, such as architects, has been established in the Kenya and elsewhere primarily to protect the public by establishing minimum requirements for individuals who plan and design public facilities.

Laws and regulations specify when engineering work must be done under the direction of a licensed engineer. Licensing laws focus on protecting public health, safety, and welfare.

One benefit of engineers obtaining one or more Professional Engineering (PE) licenses is the availability of more engineering opportunities. Without the license, the engineer will most likely always do engineering work for or under the direction of someone else. With the license, the engineer will be able to do higher level work, be responsible for more engineering projects, have access to more favorable employment opportunities, and be in a position to someday own and operate his or her consulting engineering or other engineering-based business. Holding of one or more engineering licenses is also a mark of achievement.

Download Kenya's Engineers Act here:

https://www.benardmakaa.com/wp-content/uploads/2021/05/EngineersAct_No._43_of_2011_.pdf

More details on Licensing shall be covered in Lecture 8.

“Some words of caution: Be wary of arguments—sometimes very self-serving—against licensure.

“Somes will say that licensure is merely a shallow “prestige” credential and that your employment with them—and perhaps even others—is secure as long as you maintain your technical competence. After all, that’s what really counts. But what if, someday, you want to start your own business—perhaps first as an individual proprietor and then later as the leader of a small and growing engineering firm? Can you exercise that option without a PE? Even if you never start your own firm, but choose instead to spend your professional career as an employee of an engineering organization, state laws require that the engineer in responsible charge of engineering work be licensed. Are you willing to relinquish this opportunity? That is very unlikely, so keep your options open by proactively seeking licensure” (ASCE 2008).

Finally:

“People don’t want to be managed. They want to be lead,” according to John Maxwell, a student of managing and leading. If you want to lead, you must first manage yourself. This includes selecting roles, setting goals, managing your use of time, deciding if graduate study is for you, proactively approaching and performing in your first employment, and managing your professional assets. Just as the condition of a house is determined primarily by the actions, or inactions, of the owner so your condition – your readiness to achieve success and significance and to lead – will be determined primarily by you.

Up to a point a man’s life is shaped by environment, heredity,
and movements and changes in the world about him. Then there
comes a time when it lies within his grasp to shape the clay of his
life into the sort of thing he wishes to be.

Only the weak blame their parents, their race, their times, lack

of good fortune, or the quirks of fate. Everyone has it within his
power to say this I am today; that I will be tomorrow.

~Louis L'Amour, author