The technical director in a theatre company is usually responsible for the engineering, organization, and financial management of scenery construction and installation, and for coordinating the integration of scenery with other production elements including lighting, sound, costumes, properties, and stage management. Through education and practice, a good technical director develops a wide-ranging set of skills necessary to serve as the “general contractor” of theatre production. But to be a fully actualized participant in the discipline of theatre, a technical director should learn to become something more than
the person who puts things together for theatrical purposes. A well-equipped technical director is a full participant in articulating the purpose of theatre, and up-and-coming technical directors should be taught the importance of theatre to our civilization. A good technical manager understands how theatre is comprised of people exploring, by performing stories about themselves, their identities, ideals, fears, and inspirations, often in an emotionally-charged atmosphere where people can feel vulnerable. Well-prepared technical managers recognize their role in this process, providing structure to the substance of the art, and encouraging a balance between creativity and efficiency, two concepts that do not always naturally go together. Maturity is necessary for a person to help create art in a productive environment. As technical production educators, we can create quality academic experiences by consciously teaching professional maturity along with the strategies and techniques of theatre production.

The study and practice of theatre operations is a valuable part of an academic experience because theatre technology almost perfectly embodies the spirit of education, in that it exposes the student to a range of interconnected experiences and encourages the development of measurable intellectual and practical skills. A theatre technology curriculum introduces students to the basics of structural design, teamwork, project management, budget estimates, expense coordination, resource coordination, and the basics of personnel management. Any higher education, regardless of the specialty, should help students learn how to think critically, communicate effectively, work in concert with others, and solve problems in every aspect of life. And therein lies the most important goal for an educator working with students in theatre production: to teach students how to connect discipline-specific skills to an understanding of the world around them in ways that encourage personal success in the future.

In practice, theatre technology is the ability to transform materials, labor, and time into structures and systems that elegantly and effectively support artistry. It is dominated by sawdust, sparks, diagrams, spreadsheets, and all kinds of physical materials that get reshaped and assembled into presumably more interesting things. Theatre technology is a concrete world, but the best teachers demonstrate how, between the lines on cost-estimating spreadsheets and somewhere in the clutter backstage, students can learn creativity, enterprise, self-reliance, and inspiration that can be applied not only to successful careers but to bettering themselves. As educators, we should consciously strive to imbue the hands-on realities of technical production with opportunities to model and encourage professional
maturity, by focusing on five themes that lend themselves to this overarching goal: collegiality, equanimity, acceptance, practicality, and order.

We should teach collegiality

In practical technical theatre education, the education process is driven by the collaborative moments between technicians, managers, and other artists as we cooperate to bring a production to the audience. Effective cooperation between professionals may be the most universally valuable skill we teach in academic technical theatre. As the steward of practicality on a team that is almost always comprised of creative, passionate, artistic individuals, the technical director is in a unique position to encourage thoughtful and deliberate problem solving when disagreements arise between colleagues, whether or not they are “in charge” of a meeting or project at the moment. I teach my students that the first rule of good theatre practice is some variation on “don’t be a jerk.” I encourage students to dismiss the conventional idea of a “chain of command,” and instead adopt the idea of a “chain of responsibility,” in that the people you report to have increased responsibilities, rather than just have more power than you do. For those higher up on the chain of responsibility, being accountable is more productive than being “in charge,” and this attitude tends to encourage collegiality and mutual respect between practitioners at all levels of responsibility.

In some cases, collegiality becomes more difficult because of personal history. Students live and work closely together, invariably forming romances and other social relationships that can sour over time while collaboration must continue. This sort of close-knit community doesn’t end with college and is a staple of life in the theatre. If students are taught early in their careers that personal relationships must not impact their work, they are more likely to develop ways to compartmentalize their social lives as necessary (the plot of Kiss Me, Kate notwithstanding). This sort of compartmentalization is not restricted to romance. Early in my academic career a young technical manager lamented that fellow students were not giving him the respect he thought he deserved, so I unobtrusively observed his work and saw that he participated in horseplay and favoritism with students he was ostensibly supervising. This led to a mentoring session about the importance of context. We do not behave with our friends the same way in the park as we do in church; similarly we adopt a different set of expectations for time at work compared to time away from work, and we should require that
our colleagues/friends uphold those expectations too. My student began to imagine wearing an invisible jacket and tie when “on the job” and found it helped remind him of the relevant context, with the result that he began to command respect from his young colleagues. In training new theatre managers since then, I have successfully used the metaphor of the “jacket and tie” (or whatever business attire a student prefers, regardless of gender) to explain the importance of professional distance.

Young people do not have a monopoly on irresponsible or impetuous behavior, but seasoned observers recognize there is often a correlation between inexperience and personality conflict. As we coach young theatre practitioners in the art of getting along, we should teach them that others’ poor behavior is not a license to behave poorly, but that they should never have to tolerate abuse or exploitation. It’s important to know who is above their immediate supervisor in the chain of responsibility and to feel empowered to expect decent working conditions and fair treatment. One of the most enduring pitfalls of the theatre is the stereotypical dictatorial director, a problem that is more likely to occur when artistic responsibility and financial responsibility rest with the same person. Internal checks and balances are necessary to a healthy theatre company, and we must not allow an artists’ vision to require unreasonable sacrifices from others.

If the $800 ball gown that the producing artistic director simply must have results in a budget shortfall elsewhere filled by unpaid overtime, somebody has failed in his responsibilities and should be held accountable. When a glib demand for creative solutions results in dangerous late-night work sessions or other counterproductive activity, young practitioners should know who will be their advocate in the chain of responsibility. We should never teach that such “martyr theatre” is acceptable. In academia and in the industry, the best way to teach collegiality is to be a good colleague, because students and young colleagues are almost always watching and are certainly aware of the nuances of faculty or senior staff cooperation.

We should teach equanimity

When students are in doubt about what to do next, teach them to ask, “What’s the worst that could happen?” and act in accordance with the answer to that question. A technical director is often surrounded by excitable, energetic artists, and it’s easy to get caught up in the emotions of our work, especially when things do not go according to plan. Technical directors and their stage management colleagues should always be the calm havens in any artistic storm. Young practitioners
are especially prone to react with defensiveness if not taught how to 
ride out inevitable setbacks with dignity, and they should learn that 
a calm demeanor inspires confidence in times of crisis. For example, 
during a performance an inexperienced volunteer flyman bumped 
a backdrop onto the stage before frantically hauling it clumsily out 
past another incoming scenery piece, causing the arriving piece to 
sway gently throughout the following scene. The student technical 
director did not overreact and stop the show, but he did immediately 
schedule a refresher training session for the fly crew. When I saw 
the technical director inspect both pieces of flying scenery carefully 
during intermission, I knew he acted with equanimity but not at 
the expense of safety. He had asked himself, “What’s the worst that 
could happen?” and decided the answer was, “Something might be 
loose on the scenery due to the minor impact,” but he also planned 
preventive measures for another possible result: a repeated error by 
an inexperienced volunteer. And because he was also taught the value 
of collegiality, the young technical director didn’t yell at anybody, 
remembering that when you’re yelling, you’re not solving the problem.

We might also encourage students to use the question, “What’s 
the worst that could happen?” when navigating the line between 
creativity and carelessness. Will a bold choice result in more trouble 
than it is worth? Will a scenic element made entirely of hanging soup 
spoons be too noisy back stage to justify the value it might add to the 
overarching “consumer consumption” metaphor of a production? Will 
saying “yes” to constructing a design inspired by M.C. Escher result in 
budget-busting work sessions building staircases to nowhere? I teach 
my theatre technology students to respect the creativity of their design 
and artistic direction colleagues by never saying “No” when asked 
about creating scenery for a production. The answer should always be, 
“Yes, if…,” followed by a responsible and trustworthy assessment of 
the time, money, and human resources necessary to realize the vision 
being proposed. In most cases of artistic over-reaching, this collegial 
approach will help the design team arrive at a vision that is more 
appropriate to the resources available, without the technical director
being cast as a naysayer or killjoy. Students always seem to appreciate a particular quote by This American Life radio show host Ira Glass, from the episode about a badly-managed production of Peter Pan: “Great, massive, heart wrenching chaos and failure are more likely to occur when great ambition has come into play.” Balance is key in theatre technology, especially in our professional behavior.

We should teach acceptance

Most students who choose to study theatre technology understand they will rarely if ever get audience notice and in many cases made the career choice in part because they prefer to remain behind the scenes. But as teachers we sometimes encounter in our students a sense that the efforts of technical directors and related support staff are under appreciated. We should cultivate in our students an appreciation for different types of compensation and recognition, but also make sure as we shape the practitioners of the future that the efforts of those backstage experts are recognized in appropriate ways. It may seem like a small thing, but students rarely have moved past the phase of checking the play program to see their name, and even I like to make sure my name has been spelled correctly and isn’t relegated to the bottom of a list somewhere behind the local advertisements.

Monetary compensation in the arts is rarely equitable, and if we fail to teach our students how to feel appreciated in ways that are unconnected to a paycheck, we may be setting them up for avoidable job dissatisfaction. At some time during a student’s passage through our Bachelor of Arts degree program, I ask them to talk about their motivation for choosing a theatre technology career and try to advise them if their expectations for recognition (or financial gain) are perhaps unrealistic.

The value of mentoring does not disappear at graduation, with senior colleagues often being very helpful to younger or less experienced technicians, and it helps students to learn how to seek out and recognize healthy mentoring relationships. I try to teach students the difference between favoritism and mentoring: if it’s mentoring, the junior participant is working harder and being expected to do more than average, with hard work and dedication resulting in additional professional and instructional attention. Favoritism just means somebody is slacking off, and while it is unfair and sometimes inescapable in any industry, it shouldn’t be confused with mentoring.

Nothing seems to raise the cry of “unfairness” than a piece of scenery being cut from production after an eager student has spent considerable time and attention bringing it to fruition. Designs
change, the artistic director’s vision may evolve in rehearsals, and
the technical director is rarely consulted on these developments.
To commiserate, I share a story about building scenery to support
an opera version of The Crucible during my first year of graduate
school. My pièce de résistance was a highly stylized movable judge’s
bench with elaborate molding and meticulously-placed bits of faux
wood planking. To my chagrin, the unit was cut when the director
finally noticed it on the design drawings and remarked to the student
designer that a trial in a Puritan church would not feature courtroom
furniture. As I dismantled the piece in the shop, one of the painters
casually remarked on how the scenery required several techniques that
were new to me, which was comforting because it reminded me how
much I learned while building the piece. If a student feels discouraged
when his or her work is excluded from a final production, it gives us
the chance to consider the value of alternative forms of compensation;
even if a masterpiece of scenic technology doesn’t make it to opening
night, we have learned something by creating it and have been granted

the ability to hone our craft. We’ve been paid, one way or another.

We should teach practicality
A talented master carpenter of my acquaintance often quoted
legendary guitarist Robert Fripp: “Honor sufficiency and honor
necessity.” Fripp became a motivational speaker after a career in
music including playing with the British rock band King Crimson
and would often use in his lectures various versions of this theme:
“When we honor necessity, we do what is required of us; regardless
of like and dislike and personal interest. When we honor sufficiency,
we use the right amount of the right kind of energy necessary to do
the job, to discharge the function.” It is good advice to impart to our
students.

the effect is equally impressive to the audience if
the effect is executed by an elaborate show control
computer program or by two undergraduates
watching each other carefully as they manipulate
cables behind a scenic ground row by hand.
In those rare occasions when time and money allow it, we might have staff paint the back sides of all scenery to provide a tidy finish. But in most cases, we have to be satisfied with slapping on a label and move on to the next item to be constructed before a rapidly-approaching opening night arrives. I try to impart a sense of craftsmanship to my technology students, but of equal importance is their ability to discern the difference between a luxury and a critical scenic element. Navigating decisions about what is necessary and sufficient becomes a matter of honoring the scenic design and ensuring participant safety. If time allows, we can add non-critical finishing touches to those parts of our work that do not directly impact the artistic narrative. It is important to teach students how to apply the sufficiency-necessity balance to operations as well as construction techniques. When the twenty-foot-tall French doors open at a gesture from Dracula, the effect is equally impressive to the audience if the effect is executed by an elaborate show control computer program or by two undergraduates watching each other carefully as they manipulate cables behind a scenic ground row by hand.

One classroom exercise that teaches this theme is the challenge to build a small scenery pallet for a fifty-pound piece of furniture, with the limitation that it must be movable by one stagehand with a pull-line and cannot be more than two inches tall. Students arrive at various workable solutions, often featuring ball-bearing plates, thin steel frames supporting a multitude of light-duty casters, and the use of ultra-high-molecular-weight polyethylene, the famous “slippery plastic.” But the student who decides the best solution is to mount scrap carpet strips on the underside of a piece of three-quarter-inch plywood has perhaps most effectively honored sufficiency and honored necessity.

We should teach the value of order
Left untended, the universe tends toward chaos, and nowhere is this more apparent than in a scene shop or backstage during the first technical rehearsals for a new production. Our theatre technology students should feel prepared to confound chaos whenever possible, but it is not enough to simply encourage them to be well organized. While both order and organization are important, they are distinct goals in the work we do. Organization means having your hardware in well-labeled drawers. Order is having your carpenters and interns anticipating each other’s needs, preventing construction errors, and moving projects smoothly through the shop into production. Organization prevents untidiness. Order prevents chaos.
If your education program includes student technical directors involved in the process of coordinating scenery operations with the stage management staff, you can demonstrate the value of order in how that process is taught. Backstage operations must be carefully designed to avoid injury, embarrassment and wasted effort. Our in-class and lab exercises anticipating technical rehearsals focus on creating a plan that should work, so when inevitable changes are deployed during actual rehearsal operations we have a firm foundation to begin with, clearly documented by running orders, diagrams, and stagehand-specific assignments. These artifacts of the planning process are treated like graded exams before rehearsal, evaluated for forethought and completeness. In practice, they serve as the framework for the experimentation that happens when actual people, and the best of intentions, intersect with lighting and sound cues, musical accompaniment, and inadequate wing space. Flexibility and adaptability, when applied by students in an orderly environment, usually result in a better theatre experience all around, especially during the learning process.

Even in this high-technology era, people still like to have meetings. When wisely planned and efficiently chaired, a meeting with colleagues can go a long way toward encouraging an orderly production. With this goal in mind, I often have students chair production staff meetings or design conferences, reviewing their proposed agenda in advance and critiquing their chairperson decisions afterward. Was the purpose of the meeting clear? Was progress made toward obvious goals? Were conversations that were not relevant to the majority of attendees politely rescheduled for a later time? Were all participants treated politely? When faculty members are involved, this process is often trial by fire for student leaders as they navigate the complexities of professor-as-colleague versus professor-as-authority-figure, but those challenges often help students refine their communication style as they anticipate the subtleties of highly diverse professional theatre environments.

In an ideal world, collegiality, equanimity, acceptance, practicality, and order are inextricably intertwined in healthy professional interactions. As I prepare to teach nuts-and-bolts theatre technology skills, I also find it helpful and personally rewarding to deliberately and consciously consider which of these professional maturity themes my teaching exercises are likely to enhance in my students. To my students I describe our work as being similar to writing haiku, in that we try to make something that captures an extraordinary essence of something greater, using a very specific set
of parameters and with deliberately limited resources.

We know that not every student we teach will enjoy a career in theatre technology, and we know that not every theatre professional we have taught will spend the rest of their lives in the world of theatre. But if we ensure that our educational efforts allow our students to manifest the best attributes of professional maturity in their everyday experiences, whatever those experiences may be, then we can be certain that our investment in our students has been worthwhile.