ENGINEER/SCIENTIST AS A MANAGER

- Location: Knoxville, Tennessee
- Duration: One week
- Dates: September 16-21, 2001
- Tuition: $3,450 (includes textbook, materials, meals and lodging)
- Class size is limited

1. PARTICIPANT PROFILE
Engineers, scientists and other technical professionals who are taking on new or additional managerial duties will find this Engineer/Scientist as a Manager specifically designed for their professional development. The course is also invaluable for anyone responsible for managing technical employees.

2. OVERVIEW
Engineer/Scientist as a Manager presents fundamental tools for effectively supervising the activities of others. The program emphasizes sharpening and building administrative skills and understanding organizational behavior. The course first presents basic concepts of management and then applies each concept to the unique environments of science and engineering. With extensive opportunities to exchange ideas and assess problems, participants are able to stimulate fresh thinking, expand their own points-of-view and extend their capacities to perform.

3. KEY OBJECTIVES
- Enhance management skills involved in leading individuals, groups and organizations
- Increase awareness of the need to accept responsibility for the continuous improvement of operations
- Develop effectiveness in leadership and an understanding of managerial and professional values
- Identify the special problems of technical organizations and to learn to work with them effectively
- Encourage an understanding of group dynamics and decision-making techniques

4. METHODS OF INSTRUCTION
This course places a greater emphasis on practicality and results than on theory alone. The program uses management cases taken from real-life scientific organizations along with decision exercises and films.

5. FACULTY
Engineer/Scientist as a Manager is taught by nationally recognized faculty members of The University of Tennessee and other universities, including:
- H. Dudley Dewhirst, professor of management at The University of Tennessee. Dr. Dewhirst's background includes process development research, operations analysis and management evaluation for Exxon USA.
- Gary B. Roberts, associate professor of strategic management and entrepreneurship in the School of Business Administration at Kennesaw State College in Marietta, Georgia. Dr. Roberts has consulted with such companies as IBM, AT & T, McDonald’s and First Georgia Bank.
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6. FACILITIES
Classes are held in the executive classrooms of The University of Tennessee Center for Executive Education. These facilities are specifically designed for group-interaction programs.

Accommodations are single-occupancy rooms at a nearby hotel.

7. CONTACT
For more information on Engineer/Scientist as a Manager, please call or write:

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Center for Executive Education
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FAX (865)974-4989
E-mail TheCenter@utk.edu

For current news on the Center for Executive Education and its offerings, visit our web site at http://TheCenter.utk.edu

Competitive Challenges.
Real-World Solutions.
8. COURSE CONTENT

Engineer/Scientist as a Manager incorporates four main themes:

Theme I: Developing a philosophy of management grounded in reality.
Participants are challenged to examine their "philosophy of management". Everyone has such a philosophy, but, like one's philosophy of life, it is rarely examined. This philosophy, to a great extent, dictates everything a manager does, including the way he or she communicates; develops and uses power and influence; and manages subordinates, peers and bosses. If new ideas, positive change and renewed enthusiasm for the managerial role are to result, participants must explore, probe and question their philosophies.

Throughout the course, faculty members strive to "tell it like it is". They deal with the realities of life as a manager with several initial sessions describing and exploring the playing field. Why is the field characterized by brevity, variety and fragmentation? What does it take to get promoted? What basic motives or orientations lead to a successful managerial career? How is that orientation different from that of successful technical professionals?

The participant benefits by:
► Becoming more comfortable with their managerial roles
► Understanding how to succeed as a manager
► Learning how to deal effectively with the classic conflicts between managers and technical professionals

Theme II: Dealing with classic management issues.
The classic challenges of leadership, motivation and performance appraisal are central to the program. Discussion, role-playing and decision exercises are used to bring excitement and reality to these topics. Also used is a leadership exercise developed explicitly for engineers and scientists to explore delegation decisions in a variety of situations. This allows faculty to provide individual feedback on leadership to each participant. Faculty members present methods of enhancing performance by “making heroes” of those you lead.

The participant benefits by:
► Learning a leadership model that calls for flexibility in different situations
► Using their own experience to develop an approach to motivation
► Receiving feedback on their own leadership/delegation style
► Practicing performance coaching
► Learning the keys to developing highly motivated, strongly committed employees

Theme III: Managing teams and networks.
Groups and teams are becoming more important as organizations turn to increasingly flat cross functional organization designs. Working with teams places demands on managers to develop power and influence to successfully manage relationships with others whose cooperation is needed.

In dealing with this theme, the course examines what makes groups cohesive and
explore the development of norms which influence how well groups and teams perform. Participants work on the management of problem solving groups, exploring the benefits of well-managed group decisions and the pitfalls of inappropriately used and poorly managed decisions.

The participant benefits by:
- Developing a clear understanding of what makes groups and teams effective
- Learning to manage problem solving groups
- Practicing team decision making and receiving feedback on team skills
- Learning to avoid the ever-present dangers of groupthink and “trips to Abilene”
- Developing methods to better manage relationships with peers and bosses

Theme IV: Focus on special problems in managing scientists and engineers.
Managing professionals presents some critical issues for the manager. Young professionals finish school and join organizations believing they are ready to do great things. Initial assignments and early treatment are important predictors of their long-term success, yet these two critical areas are more often than not, mismanaged. In addition, mature professionals who have reached a career plateau are the backbone of most technology-based organizations. Course instructors use cases to explore ways to help young professionals through their inevitable period of adjustment and to create a challenging and motivating climate for the seasoned professionals.

To ensure that participants develop ways to manage problems they face in their own organizations, instructors ask that they (individually or in small groups) prepare a short case for the class to discuss. Participant cases provide lively discussion and help participants learn from their peers.

The participant benefits by:
- Understanding the “period of adjustment” which new engineers and scientists experience and developing ways to help newcomers become contributors more quickly
- Learning how to keep plateaued employees productive
- Developing ways to enhance creativity and innovation
- Working on issues of importance in his or her own organization

9. RELATED COURSES
Related courses currently offered by the Center for Executive Education include:
- Executive Development Program
- Management Development Program
- Project Management: Beyond the Techniques

10. HOW TO APPLY
To apply for the Engineer/Scientist as a Manager program, please call (865)974-5001 or fax (865)974-4989 for an application form.
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<tr>
<th>Day</th>
<th>Morning Sessions (8:10-11:30 a.m.)</th>
<th>Afternoon Sessions (1:00-4:15 p.m.)</th>
<th>Evening Sessions</th>
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<tr>
<td>S</td>
<td>Registration and Check-In 4:30-6:00 PM</td>
<td>Introduction  The Nature of the Manager's Job</td>
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<td>Managing and Professional Motivation</td>
<td>Effective Use of Power and Authority</td>
<td>Management Decision Exercise</td>
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<td>Leadership Model  Technical Managers' Leadership Exercises</td>
<td>Motivation  Communication and Performance</td>
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<td>Group Dynamics  Leading Problem Solving Groups</td>
<td>Group Decisions</td>
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<td>Special Problems  Young Engineer/Plateaued Performer</td>
<td>Live Case Discussion</td>
<td>Managing the Boss</td>
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<td>Creativity &amp; Innovation  Integrative Exercise</td>
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