The mission of a university is carried out chiefly through its academic departments. The effectiveness of academic departments determines the effectiveness of the institution as a whole. The job of department chair is, therefore, a critical role in the success of the institution.

In an effort to learn about strategies for effective departments and chairs, we asked for names of exemplary chairs. One name kept coming up: Max Carbon, retired chair of Nuclear Engineering and Engineering Physics at the University of Wisconsin-Madison, 1962 to 1992. And anyone who named Max just stopped there, as if there were some great gap between Max and anyone else. So, we decided to learn from Max. This article is an interview, offering insights into the leadership approach established by this respected department chair.

In addition to his outstanding leadership, Max was unique in that he served this role for over 30 years. The typical length of tenure for chairs at UW-Madison is three to five years. In 1958, Max Carbon served as chair of a nuclear engineering committee with faculty from across engineering and from chemistry and physics. This committee established a master’s degree program which grew to include Ph.D. and bachelor’s degrees. When the nuclear engineering program became a separate undergraduate/graduate “Department of Nuclear Engineering” in 1962, Max Carbon was its initial chairman. He served in that role until his retirement in 1992. During his tenure, he also served as a member of the U.S. Nuclear Regulatory Commission’s Advisory Committee on Reactor Safeguards from 1975-87. This committee is the key external advisory committee for the NRC and the Congress on nuclear reactor safety.

During Dr. Carbon’s tenure as chair, the Department of Nuclear Engineering and Engineering Physics (NEEP) at UW-Madison established a leading national reputation in the field. Dr. Carbon’s leadership guided the successful development of a highly controversial field through a difficult time in history.

This article, however, is not about the Department of Nuclear Engineering. It is about an effective academic leader. Here is our interview with Max.

As chair, what did you view your role to be?

the department met its commitments,
and #2, to provide leadership. To meet our commitments as a department, we were obligated to provide a quality education to the students, including ensuring that our curriculum was up-to-date; stay within budget; meet federal and state requirements; meet deadlines established by higher administration, etc.

In short, my role was to determine what needed to be done and then ensure that someone did it.

In my leadership role it was my responsibility to set the tenor of departmental operations, which, for me, included such points as: our mission is to teach, we must treat students courteously and respectfully, we should aim to be a top-notch department (to be the best, if possible), we must put in a day’s work for a day’s pay, etc. Another crucial leadership role was planning, both short-term and long-term.

Within this role, what did you view as your most important responsibilities?

I felt that possibly my most important responsibility was to identify and attract outstanding faculty members, to give them the tools to work with, to keep impediments out of their way, and to reward them for their work.

Along with this, a major responsibility was in long-range planning. In NEEP, we thought in terms of teaching and research areas, of establishing teams or critical masses, of the kind of staff needed to meet our long-range goals, of the needs for women and minority recruitment, of retirements and timing, of the phasing out of teaching and research areas and in the initiation of new ones, etc.

Please tell us more about how you identified and attracted outstanding faculty.

We went to great lengths in our hiring process to get the best people in the field. Some of our strategies included:

- We viewed hiring as an ongoing process. We recruited almost continuously. When freezes occurred, we invited potential recruits to give seminars. We were always identifying the best in the field, keeping track of them, building a relationship with them. Then, when it was time to hire, we were ready to jump. This was especially important for hiring women and minorities.

- We normally identified potential candidates by personal calls to faculty at other schools or to colleagues in our field (or from our own personal knowledge). We certainly advertised openings as legally required, and we carefully reviewed all responses. However, people of the quality we sought seldom pay attention to advertisements, and I can’t remember a single case where we ended up hiring an individual as a result of an advertisement.

- The judgements of the quality of potential candidates were based on recommendations of people who themselves were known to be high quality and who knew the candidate
We took a long range approach to hiring. We never sought to “hire someone to teach NE 401 next semester”. It usually took at least a year to recruit and bring to the campus people of the calibre we sought. In one case we recruited an individual for three years.

We sought quality people, usually from the top 5% of the best departments in the country. One person we hired was described by his major professor at Berkeley as “the best graduate student I have ever seen.” Another was described by a professor at Cal Tech as “one of the two best people we have had in Engineering Science in the last five years.” Another was called “one of the two best students we have had in Nuclear Engineering at MIT in the last ten years.” We rarely hired our own graduates, and never as “fresh Ph.D.s”.

Incidentally, I did not recruit people. A chair can take the leadership in recruiting, but the entire faculty plays a major role.

Once you hired these outstanding people, did you do anything to help them succeed? Or since they were top-notch, did you assume they would be able to swim by themselves?

Although we hired some senior people, our normal approach was to identify outstanding young people, hire them with the expectation that all would make tenure, and give everyone all the support we could for him/her to get ahead. For example, assistant professors were given light teaching loads so they could establish their research programs quickly. They were excused from most committee assignments. They were helped with funding for research equipment. They were invited to join successful research teams and share in funding as well as participate in on-going research, etc.

We assigned mentor teams of two senior professors to help each new person. They would provide advice, follow the progress of the newcomer, etc. This was done long before the rest of campus did it.

What else did you view as important roles for you as chair?

I tried to shield faculty from administrative matters as much as possible. I saw my job as dealing with those matters so that faculty could be free to do their work. I tried to appoint as few committees as possible and call as few meetings as possible. We tried to handle administrative matters in the chair’s office rather than passing them on to individual professors.

We hired a department administrator 30 years ago to handle much of the administrative workload, including budgetary matters. This individual also helped faculty with their research budgets.

Did you do anything to recognize and reward people?

I tried to ensure that our people’s salaries were on par with their peers at
the best programs in the country. I never tried to hire a person at as low a salary as possible. That is a mistake. I tried to ensure that their starting salaries were competitive, based on their qualifications. This normally meant starting salaries near the upper end of the Dean’s permitted range.

What was your philosophy concerning workload expectations?

I considered my primary boss to be the faculty, not the Dean. However, people were expected to produce. Everyone had at least a 100% workload. I believed we had an obligation to the taxpayer. Salaries were based heavily on merit. Full professors salaries varied by 20-30%.

What was your view of the relative importance of teaching and research?

Teaching and research are BOTH important. Faculty positions were described as half-time teaching and half-time research. We demonstrated that faculty can perform top-notch teaching AND top-notch research. Typically, we had the best teacher ratings in the college. We also had the highest research income per faculty member.

We only had one or two poor teachers, but they suffered significant salary restrictions.

How did you make decisions in your department?

We operated by consensus. Our aim was 100% open communication. We discussed matters openly in department meetings. We would go around the table and ask everyone to express his or her view. Our major decisions were almost always by unanimous agreement. One individual who refused to fit in was not encouraged to remain.

We brought assistant professors into full participation in dialogues on budget, hiring, priorities, etc. Only senior faculty voted on some matters such as promotion to tenure, but the participation by all added value to our decisions and helped develop our junior faculty.

Everyone was expected to be at every department meeting unless he or she had a valid excuse (out of town, high-level visitor, teaching a class, ....)

I served as “Executive Vice President,” not as head or supervisor. Faculty set policy; I executed it. I brought options and recommendations to faculty. They decided by vote. Alternately, faculty committees brought recommendations to the faculty.

It was our department, not mine. I tried to avoid the use of the word “I.” For example, “We need a department meeting to discuss....” instead of “I am calling a Department meeting....”

NEEP operated on the concept that the
The department was a team of people, (instead of a group of individuals), that we had a common goal, that we should help one-another, that two plus two could equal five.

Salary raises were determined by a two-person committee consisting of the chair and one appointee. Appointees rotated yearly so everyone in the department participated in turn. Each faculty member filled out a form: “Highlights for the Past Year.” This form was discussed in interviews yearly. During these interviews, each faculty member was asked to express his or her views on questions such as: “Who are the three or four most valuable members of the Department?” “What are the strengths of each member of the Department?” and “Which members deserve the largest raises?”

What are some principles or qualities that you feel were important in your role?

This was part of setting the tenor of the department. Some of the principles I promoted and tried to live out were:

- Treat people like I would like to be treated - with dignity and respect.
- Be patient, willing to listen.
- Keep my word when given to faculty and others.
- Be persistent - carry through on “assignments” from faculty.
- The faculty is a team and some members will likely be brighter than the chair.

How did you make decisions about salary raises?

Solicit and accept good ideas and then implement them. Be willing to listen. Not all good ideas come from the chair.

Every year I requested faculty to write private letters to the Dean to rate me as a chair. I would not have stayed on without strong support.

What did you do to help maximize the potential faculty had to offer?

I tried to do everything I could to ensure that faculty could do their best work. Some of these things included:

- Ensure appropriate recognition through salary, awards, etc.
- Assist in obtaining needed support facilities such as research equipment, computer equipment, and support staff.
- Support a faculty member’s right to discuss matters with higher administrative people.
- Solicit information from individual faculty members. Standard questions in our yearly interviews with each faculty member were “What can the department do to help you meet your responsibilities and advance your career?” and “What can I as department chair do to help you?”
Support faculty when opportunities arose for them to serve on important national committees. Participation on committees helped them develop the networks that advanced their work and enabled them to be ahead of the game knowing about grant opportunities.

*What did you see as the role of the staff?*

The role of the staff was to support students, to support faculty, and in some cases, to initiate and carry out independent research. Our departmental administrative assistant was very important; he handled most departmental budgetary matters, dealt with students, assisted research professors with their budgets, and so on. The staff were highly valued and respected.

*What can central administration do to help a department/chair?*

PI’s are the most important people on campus. Their jobs are more difficult than those of chairs. They are underappreciated. Keep administrative loads off them.

*What would encourage people to become chairs?*

People might be encouraged to become chairs if there were greater recognition for the importance of the position. Also, to some extent, salary recognition would help.

*Are chairs expected to keep up research?*

I expect most chairs want to keep up their research, partly because it is very difficult to restart a research program. However, it is also difficult to keep a vigorous research program in operation unless the department is in a quiet period or unless many administrative matters can be handed to other faculty.

*What can be done to help chairs keep up their research programs?*

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*What can be done to help chairs keep up their research programs?*
This is primarily a departmental matter versus central administration. Chairs can be relieved of teaching duties. They can be provided adequate administrative support. They can be given sabbaticals when they have completed their terms, so they have time to concentrate and reinvigorate their research.

You were a chair for over 30 years, but you have watched most departments have rotating chairs. What is your perspective on the length of the chair role?

I have mixed feelings on this. Generally, chairs should not be rotated more often than three or four years except for failure to perform.

Further, rotation is bad if a good chair is in place and no one wants the job. I think a person must be at least modestly interested in the position to have the enthusiasm to do a good job. Some departments have difficulty finding people willing to undertake the “chore.”

On the other hand, a poor, long-term chair can do considerable damage to a department. Perhaps the best hope is for a good chair who will serve for several years.

I think the University should look at training programs for new chairs, especially for those from weak departments. The program should cover the myriad of administrative procedures he or she will face and an introduction to working with people -- important factors in leadership, how to handle difficult people, how to recruit, etc. I would suggest a required one week training program for new chairs from all departments except the very best.

What can a chair do to help prepare the next chair?

In NEEP, we elected the next chair 1-2 years ahead. During the time before he took over, he attended meetings with me and was involved in all significant issues, including salary reviews.

On a different topic — There is another very important aspect of chairmanship which has been only marginally touched upon above. That involves the human relations aspect of the position. I believe that most employees, whether secretaries or scientists, want to feel that they work for something or somebody who is human rather than for a “computerized answering system.” If any employee has a concern or complaint, it is important that the chair listen and be responsive to the employees needs. This will involve supporting (“or going to bat for”) the person if the complaint is legitimate. If a new, bewildered assistant professor needs morale boosting, the chair should provide it. If an employee has a calamity -- personal, professional, in his/her family, whatever -- a chair must be prepared to assist. This may involve providing assurance, arranging time off, helping a spouse, etc. A chair is the human interface between the employee and what can appear to be a sort of faceless bureaucracy.

We thank Max for sharing his experience and insights on the role of an academic department chair.
The success of a university hinges on the success of its departments. The success of departments is largely influenced by the effectiveness of their leaders. The department chair is, therefore, a critical leadership role in a university. Open any book on effective leadership and you will find core principles that have been illustrated in this article through Max’s observations on being a department chair.

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FROM A COLLEAGUE:

by Michael Corradini

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Max Carbon said that hiring the best faculty was one of his highest priorities and that he viewed it as an on-going process. We decided it would be interesting to ask one of his recruits his perspective on Max’s approaches and philosophy. Mike Corradini is still a faculty member in Nuclear Engineering and is now also Associate Dean of Academics for the college.

Here is Mike’s account of Max’s efforts to recruit him to come to Madison and what ultimately convinced him to come.

I was about to accept an offer at Sandia National Lab in the spring 1978 when I got a call from Max Carbon in my MIT graduate office. He introduced himself and told me that Norm Rasmussen had suggested he call to see if I was interested in an assistant professor position at the University of Wisconsin. I thanked him and told him I had just turned down offers from Virginia and Purdue in nuclear engineering and had turned down another industrial offer to go to Sandia when I finished at MIT. Thus, it was too late.

Max then asked me about my thesis. (His area of interest was fast reactors and my thesis application was in fast reactors, so we made small talk.) I think I told him that eventually I really did want to be a professor, but my aim now was to get some experience at a lab first, to do research there and get to know industry people. He thought that
was a good idea and said that UW was always looking for good people and that if I did not mind he would stay in touch, see how it was going at Sandia and see if I could come out to UW later. He also gave me an impression that he was not in a hurry and did not want to pressure me (although now I know that he actually had his way to keep the pressure on).

A year passed and he came out to Sandia for some consulting and we went out to dinner. We discussed Wisconsin, the faculty, how they needed someone in reactor engineering applied to fission and safety and how I might be a good fit. We said goodbye and he called a couple of times that next year (79-80) and then invited me out to UW to give a seminar in March 1980. That went very well. I was very impressed with the faculty and the 'team' atmosphere that they ALL seemed to exude about the work, both research and teaching. I was from MIT and I knew some examples of dysfunctional behavior and I guess I saw a difference in the department at UW. Also, I was in the research area of fission safety and asked around about Wisconsin. I was told they were great in fusion but weak in fission. However, they said Max Carbon was the one of the best people to work for in the world. In fact, one professor in chemical engineering at Northwestern, said then and repeated it often, that Max was the epitome of a gentleman and someone he respected highly.

I might say that Virginia and Purdue had not given up either. Thus, I did visit both of those campuses too. It was clear to me the "family" atmosphere at UW was quite unique. It appeared and it was true that almost everyone was willing to help and assist you as you started. Well, to finish, Max did not stop. In the spring of 1980, he invited me back for another seminar for the 1980 fall semester and invited my wife come along. He made the pitch that 1981 would be a good year to consider a switch. By this time, I was tiring of the atmosphere at a national lab and was ready to go to a university. That, combined with Max's persistence and interest, and the authentic "family" atmosphere that Wisconsin showed made it an easy decision.

I must point out that money was not a prime consideration, although it did help. When I left MIT, a professor was making about 10% less annually than what one would make at a lab. Max made sure his offer was about 10% higher than what I made annually at the lab when I left. I never even considered a "startup" package or other points, although Max did and made sure all was very business-like. In addition, my wife was not too keen on moving to Madison from warm New Mexico. It was a hard sell that took more time for her. In today's market, even more courting of the spouse may be necessary.

The chance to join an exciting and lively "family" was the key to my decision; with a true "servant" and "gentleman" as the leader.

Comments and questions may be directed to:

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