

## **Lessons Learned: Improving the New Faculty Orientation Program**

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# Lessons Learned: Program Structure for a Formalized New Faculty Orientation

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### Introduction

The Air Force Institute of Technology (AFIT) is located at Wright-Patterson Air Force Base near Dayton, Ohio. The Institute provides technical and professional continuing education for the United States Air Force and is also home to a fully accredited graduate program, the Graduate School of Engineering and Management. AFIT offers Master's and Doctoral degrees in STEM areas in support of the mission of the US Air Force. AFIT is unique from most universities on a number of aspects, including its two categories of faculty personnel: military and civilian. The civilian faculty tend to be traditional tenure-track and typically remain at the institution for much or most of their careers. The military faculty, however, are assigned to faculty positions for anywhere from three to six years, depending on their career field and the needs of the Air Force.

Two categories of faculty at AFIT mean that there is a significant influx of new military faculty annually. The new faculty orientation program must be structured to accommodate a cohort of new faculty that are predominantly military members. The orientation program must be flexible in meeting the needs of a diverse cohort of new faculty that enter their positions with varied backgrounds and, in many cases, little or no prior teaching experience. Instruction in effective course design and classroom instruction is, therefore, of particular importance for faculty that are selected largely for high level skills in their discipline and a promising agenda of research. As noted by Felder [1]:

As everyone knows, skilled professionals routinely receive training before being certified to practice independently. Electricians, machinists and chefs get preliminary instruction and then serve for months or years as apprentices. Accountants, psychologists and physicists and physicians spend years earning degrees in their fields, and the physicians spend additional years in supervised internships and residencies. It would be unthinkable to allow people to practice a skilled profession without first being trained for it, especially if their mistakes could cause harm to others...unless, that is, they are college professors. (p. 5)

Given the unique nature of AFIT, the overall design of the orientation is crucial to the success of the program and preparing new faculty for enacting their roles and completing work

expectations. The inclusion of a course design workshop provides classroom management and instructional tools and the individual mentoring program added in 2017 provides a form of apprenticeship to support and guide the newest faculty in the departments.

## **Background**

The New Faculty Orientation at AFIT is a formalized program, planned and coordinated through the Office of Faculty Development and is held once each year prior to the fall term. The goals of the program are to provide a comprehensive orientation to the institution and the teaching and research goals of AFIT. The orientation provides information regarding institutional resources as well as support and guidance to help integrate and acclimate new faculty. Barlow and Antoniou [2] propose "ensuring that new staff have access to the information and facilities they need from the start in order to reduce frustration and enable them to develop confidence and begin to feel in control from an early stage" helps to acclimate new "lecturing staff" into the Institute and their roles.

The orientation is designed to also foster a sense of competence, collegiality, and inclusion and to promote collaboration. The AFIT orientation intent is consistent with the orientation goals outlined by Welch [3]:

model a learning-centered environment and set the stage for new faculty to be learning centered; enable new faculty to be knowledgeable about the college, its campuses, its programs, and its services; encourage new faculty to be collegial, involved in college and campus arenas, and have experiences and relationships with colleagues at other locations and in other departments; and establish expectations for new faculty to maintain vitality and to continue their professional growth as they move through their careers. (p. 12)

The AFIT orientation is structured as a two-week training program made up of five key components: a course design workshop; professional development sessions; institutional information; mentoring information and introductions; and panel discussions in areas such as teaching excellence, research excellence, and work/home balance. The design and structure of the program was modified in 2017 in response to informal feedback from previous participants and input from the Faculty Development Advisory Board. Subsequently, a system of data collection was embedded into the 2017 orientation to enable assessment of participant perceptions of the usefulness of each element in the orientation and to suggest areas for change and improvement. A survey instrument consisting primarily of Likert scales was developed specifically for this purpose.

## **Lessons Learned**

The orientation program of 2017 was built upon the work in the previous year by two faculty member volunteers (one military and one civilian), as the position of Director of Faculty Development was vacant at that time. The incoming Director worked with the faculty volunteers to modify and improve the program based on feedback received from participants in the 2016 orientation. There was no evaluation process built into the 2016 program; therefore, all input regarding the program was informally received. The following changes were made based on information from both the facilitators and faculty who experienced the 2016 orientation.

1. The time frame of the program was modified from nine days over a span of three weeks to eight days over two weeks. Previous cohorts had verbalized that the orientation was overly

lengthy and prevented them from working on their new teaching and departmental responsibilities.

- 2. The course design workshop was previously offered over four days from 10 a.m. to 4 p.m. during the week prior to the general orientation program. This was modified to integrate the course design workshop into the general orientation program, placing components in logical sequence over the two-week orientation each afternoon. The course development workshop begins with syllabus development and progresses through construction of learning goals, learning activities, teaching strategy and lesson plans, course evaluation and assessment. When offered prior to the orientation, it was believed that the participants had little in the way of a frame of reference from which to interpret and integrate the information. Additionally, the use of three instructors with each presenting separate components of the workshop was changed to using only one instructor for purposes of continuity and to minimize redundancy. This individual participated in the course development workshop in the previous year and is an accomplished faculty member with expertise in both course development and classroom instruction. This intensive introduction to effective course planning and implementation is consistent with the observations of Jones [4] and Black [5] that an important element of effective instruction is ongoing learning by the faculty member.
- 3. Some components from the previous orientation were eliminated based on feedback and time constraints and others that were deemed important were added. For example, some of the modifications included condensing the registrar's presentation to one block of time instead of two, eliminating the overview of research centers in favor of a walking tour of these facilities with brief introductions from the directors, elimination of a panel presentation on tenure and promotion and incorporation of this information into the introductory presentation by the President of the Faculty Council. The extensive information on promotion and tenure was omitted as the overwhelming majority of military faculty will only complete one tour at AFIT and will not have adequate time to pursue tenure. The civilian faculty have opportunities and resources within their respective departments and the Faculty Council to obtain additional information and guidance.
- 4. Participants were provided with a spreadsheet outlining all activities over the eight days of orientation instead of multiple pages with each day's programming. The one-page general overview proved to be more effective and less confusing and enabled daily and weekly planning to accommodate any personnel processing appointments or demands.
- 5. A presentation on the Institutional Review Board was added to the orientation, as the review process is different in many regards from non-military institutions.
- 6. Also, a brief overview of offices and services that are important for navigating the Institute, such as personnel offices for either military or civilian faculty, payroll, and administration, was added. Law et al [4] writes:

The process ensures that each new faculty member receives essential information (such as organizational issues and teaching modalities), crucial documents (promotion and tenure, committees), and curriculum-relevant materials (Blackboard and teaching technology training). (p. 3)

- 7. A mentoring program was added that is consistent with best practices and models provided by other institutions of higher learning. Sorcinelli [5] reports "new faculty see benefits in working with senior faculty in formal mentor programs". This program has three elements: a) An individual mentoring program where each new faculty member is paired with an experienced faculty member in his/her department; b) Two peer mentoring groups with each headed by a volunteer leader from the group; and c) A series of workshops on topics of relevance to new faculty including "Designing Courses for More Significant Learning," Rethinking Engineering Presentations: The Assertion-Evidence Structure," "Copyright Law: What You Need to Know," and "Teaching Strategies for the Active Learning Classroom."
- 8. An evaluation tool was developed and embedded in each segment of the orientation to enable assessment of the orientation overall and each separate component.

## **Discussion and Conclusion**

The mean attendance at the 2017 orientation was ten new faculty members each day and the overall response rate for the evaluations was 80%. The analysis of the evaluation feedback revealed that 90% of the participants rated the orientation content as excellent, good, or average (Figure 1). 90% rated the structure as excellent, good, or average with the majority in the "good" category (Figure 2). 60% found the length to be good or average, 40% found the length to be fair or poor (Figure 3). 90% rated the orientation as appropriate for their level of experience (Figure 4).

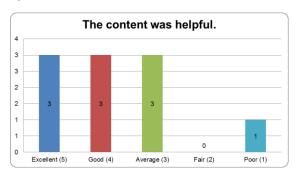


Figure 1. Program Content

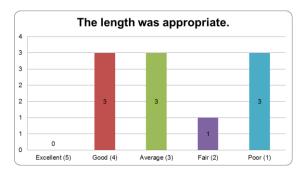


Figure 3. Program Length

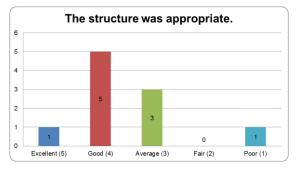


Figure 2. Program Structure



Figure 4: Program Skill Level

The elements of the orientation that were rated as "most liked" were the panel discussions and secondly, the presentation on time management. Criticisms of the orientation program included length (too long) and inclusion of the course design workshop into the general orientation.

Changes planned for the 2018 orientation will incorporate the following 'lessons learned in 2017' which may also be of use to other institutions. These include: revise or eliminate individual elements that were rated poorly; restructure with attention to length to reduce the overall time frame; and, separate out the course design workshop and offer it separately after one to two weeks have elapsed. This change will allow participants to integrate into their departments and receive teaching assignments. Additional revisions are expected each year based on feedback and best practices to create the most effective orientation for the new faculty at AFIT.

## Disclaimer

The views expressed in this paper are those of the authors and do not reflect the official policy or position of the United States Air Force, the Department of Defense, or the U.S. Government.

## References

- [1] R. M. Felder, "New STEM faculty support: Why aren't we providing it?" *Journal of STEM Education*, vol. 13, no. 5, pp 5-6, October-December, 2012.
- [2] J. Barlow and M. Antoniou, "Room for improvement: the experiences of new lecturers in higher education," *Innovations in Education and Teaching International*, vol. 44, no. 2, pp. 67-77, 2007.
- [3] G. F. Welch, "A new faculty orientation program: Building a core of new faculty to shape the future of the college," *New Directions for Community Colleges*, vol. 120, pp. 11-16, 2002.
- [4] A. Jones. "Preparing new faculty members for their teaching role," *New Directions for Higher Education*, vol. 143, pp. 93-100, 2008.
- [5] K. O'Meara, A. LaPointe-Terosky, A. Neumann, "A framework for faculty growth," *Faculty Careers and Work Lives: A Professional Growth Perspective*, ASHE Higher Education Report, pp. 23-32, 2008.
- [6] A. V. Law, C. Jackevicius, W. I. Murray, K. Hess, D. Q. Pham, D. I. Min, and J. Le, "Impact of a faculty orientation and development committee," *American Journal of Pharmaceutical Education*, vol. 76, no. 1, pp. 1-7, 2012.
- [7] M.D. Sorcinelli, "Effective approaches to new faculty development, Journal of Counseling and Development, vol. 72, no. 5, pp. 475-496, 1994.