



# ADVANCED DEGREE FACT SHEET

Engineer Professional Advisory Committee

Career Development Subcommittee

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## 1. Introduction

Engineers play a significant role in all aspects of PHS activities, while working in concert with various professional disciplines and non-PHS agencies. In light of the diverse specialties and roles within the category, PHS engineers may find themselves in a position to consider various options for continuing education during their careers.

The pursuit of higher education represents a significant personal, professional and financial commitment, which strongly influences the path and identity of a person's career. In selecting an advanced degree, it is in the interest of the engineer to consider a program that maximizes his or her potential for upward mobility within PHS, and it is in the interest of the PHS to guide engineers toward educational tracks that add value to the category. Along with existing guidance on creditable graduate education for appointment to the Commissioned Corps<sup>1</sup>, the Career Development Subcommittee hopes to assist engineers who seek to advance their education during the course of their PHS careers.

With regards to advanced degrees, the 2012 Engineer Category Promotion Benchmarks<sup>2</sup> specify a "master's degree or doctoral degree from an approved school in engineering, public health, or another field of clear potential value in Corps engineering activities." The following sections provide information to help determine whether a school is approved and to evaluate the potential value of a non-engineering, non-public health degree to Corps engineering activities.

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<sup>1</sup> Category Specific Appointment Standards, Section 6-4, CCI 231.03, 2011  
Engineer's Career Planning Handbook, Chapter 5, Section 1.a.iii, EPAC, 2003

<sup>2</sup> <http://dcp.psc.gov/PY2012.aspx>

## **2. Accreditation**

For a school to be considered approved, it must be accredited by a professionally recognized independent organization. Additional information on accreditation is available through the U.S. Department of Education (DOE) and the Council for Higher Education Accreditation (CHEA) at the following websites:

DOE: <http://ope.ed.gov/accreditation/>

CHEA: <http://www.chea.org/>

It is especially important to distinguish accredited schools from “diploma mills” that offer degrees for a fee without regard for professional standards of accreditation and coursework. For example, if a program is willing to offer “credits” based on job experience, this could be one indicator that the institution is a diploma mill. Officers are encouraged to review the DOE website for more information to help identify and avoid diploma mills:

<http://www.ed.gov/students/prep/college/diplomamills/diploma-mills.html>

## **3. Approved Advanced Degree Programs in Engineering**

To be considered an approved school in engineering, the institution must be accredited by the Accreditation Board for Engineering and Technology (ABET). The ABET website ([www.abet.org](http://www.abet.org)) contains a directory of accredited programs, which officers can search by school, state, and area of study.

It is important to note that ABET accreditation is typically applied to the lowest level qualifying degree that an institution offers in a particular program. Officers seeking advanced engineering degrees should look for programs that have been accredited at the bachelor’s degree level or higher. For example, if a school’s civil engineering program is accredited at the bachelor’s degree level, then the same school’s civil engineering program at the master’s degree level would be considered approved. As of October 1, 2010, there are 2,078 engineering bachelor degrees and 35 master’s programs that have been accredited by the Engineering Accreditation Commission (EAC) of ABET.

## **4. Advanced Degrees and Professional Engineering Licensure**

Academic requirements for professional licensure may also factor into an engineer’s choice of advanced degree program. It is important to note that the National Society of Professional Engineers (NSPE) and the National Council of Examiners for Engineering

and Surveying (NCEES) have recently advocated proposals<sup>3</sup> to require a master's degree as a prerequisite for licensure as a professional engineer. The specifics of the new requirement, which must be adopted by state licensing boards to affect actual policy, are currently under development with a target date of 2020.

## **5. Approved Advanced Degree Programs in Public Health**

To be considered an approved school in public health, the institution must be accredited by the Council on Education for Public Health (CEPH). CEPH is an independent agency recognized by DOE to accredit schools of public health and public health programs offered in settings other than schools of public health. The CEPH website ([www.ceph.org](http://www.ceph.org)) contains a directory of accredited schools and programs, which officers can search by school, degree, concentration, state, and online programs. As of October 26, 2011, there are 49 schools of public health and 84 other public health programs accredited by CEPH.

The Association of Schools of Public Health (ASPH) represents the 49 CEPH-accredited schools. The ASPH website ([www.asph.org](http://www.asph.org)) contains a directory of the accredited programs, which officers can search by school, degree, area of study and distance learning programs.

The Schools of Public Health Application Service (SOPHAS) is the application service used by 39 of the 49 CEPH-accredited schools of public health. The SOPHAS website ([www.sophas.org](http://www.sophas.org)) also has a program search and links to many resources that officers applying to public health programs may find helpful.

## **6. Other Fields of Potential Value to Corps Engineering Activities**

PHS engineers may choose from a variety of assignments in areas that include research, facilities engineering, regulatory compliance and program management.<sup>4</sup> Some career paths may lead an officer to consider an advanced degree outside the fields of engineering and public health. To be considered approved, an alternative advanced degree program must meet the accreditation standards of the independent organization recognized by the profession. The “potential value” of a particular degree should be measured against the mission of the officer’s OPDIV as well as the Mission of PHS Engineers, which states that:

*Engineers play a vital role in the overall PHS mission to protect, promote, and advance the health and safety of the nation. PHS engineers:*

- *Provide sound engineering expertise in the support of specific agency objectives,*

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<sup>3</sup> [http://www.ncees.org/About\\_NCEES/Engineering\\_education\\_initiative.php](http://www.ncees.org/About_NCEES/Engineering_education_initiative.php)

NSPE Professional Policy No. 168

<sup>4</sup> Engineer’s Career Planning Handbook, Chapter 4, Part 2, EPAC, 2003

- *Use engineering skills to safeguard the public and to research and identify solutions to the many health-related problems that face our nation,*
- *Remain on the cutting edge of engineering disciplines and technology as we face the health and environmental challenges of the future,*
- *Provide assistance directly to the American people in the form of professional consultation and the provision of health-related facilities.*

For additional assistance with individual career development planning, officers are encouraged to participate in the PHS Mentoring Program for Engineers.<sup>5</sup> Officers may also consult the Chief Engineer for guidance on the potential value of a particular advanced degree program.

## **7. Recommendation**

PHS engineers are encouraged to pursue advanced education in a manner that promotes the core values of leadership and excellence in their professional and personal lives. In light of the diverse specialties and roles within the engineer category, the EPAC recognizes that various advanced degrees may be of potential value to Commissioned Corps engineering activities.

However, there is not a predetermined formula for assigning value to a particular advanced degree. The promotion benchmarks serve as a useful guideline in this regard, but the perceived “value” may fluctuate according to the views of a particular promotion review board or changes to the career path of a particular officer. Additional factors in assessing the value of an advanced degree may include:

- Strength and reputation of the degree granting program or institution;
- Level of advanced degree (master’s or doctorate); and
- Transcripts, CV’s and other documentation of academic achievement.

Ultimately it is the responsibility of the individual engineer to demonstrate the value of his or her degree to PHS engineering activities. Officers are encouraged to use documents such as CVs and Officer’s Statements to showcase their credentials and draw a clear link between education, goals, achievements, and overall value to the missions of PHS and their respective OPDIVs.

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<sup>5</sup> Information on the PHS Mentoring Program for Engineers is available at <http://www.usphsengineers.org/>