

**PDHonline Course R701 – 2 PDH** 

# Maryland Laws and Rules for Professional Engineers

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# **Maryland Laws and Rules for Professional Engineers**

## John C. Huang, Ph.D., P.E.

# **Course Outline**

State laws require that all licensed professionals become familiar with the rules regulating their professions. This course provides a review of the Maryland Board Rules for Professional Engineers contained in Title 9 of Code of Maryland Regulations (COMAR), which include Chapter 01 Procedural Regulations, Chapter 02 Hearing Regulation, Chapter 03 Code of Ethics, and Chapter 06 Continuing Professional Competency Requirements under Subtitle 23. In addition, it covers recent amendments to COMAR 09.23.03.09, which allow for the use of digital signatures by licensees.



This course includes a multiple-choice quiz at the end, which is designed to enhance your understanding of the course materials.

# Learning Objectives

At the conclusion of this course, the student will:

- Be familiar with Maryland Board Laws and Rules;
- Be aware of the unprofessional conduct;
- Understand the range of penalties for professional misconduct;
- Be familiar with the mandatory continuing education requirements;
- Be familiar with the roles and responsibilities of a professional engineer; and
- Have a better understanding of the requirements and other regulatory provisions for practicing engineering in the state of Maryland.

# Background

Prior to January 1, 2018, all Maryland licensees are required to obtain 24 Continuing Professional Competency credits in each biennium to renew their licenses. At least 18 out of 24 CPC credits must be in Category A programs; no more than 6 may be in Category B programs. However, the rules for continuing education for Maryland engineers are revised as follows, effective January 1, 2018:

- A. A licensee shall complete a minimum of **16 PDH** units earned from the participation in and completion of qualified programs described as:
  - 1. Technical, research, analytical, or design aspects of engineering;
  - 2. Laws and regulations applicable to the practice of engineering in Maryland;
  - 3. Engineering-related computer hardware and software topics;
  - 4. Standards of practice or care;
  - 5. Professional engineering ethics;

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- 6. Project management, risk assessment and management, or emergency and disaster management; or
- 7. Similar topics aimed to maintain, improve, or expand the skills and knowledge relevant to the licensee's field of practice.
- B. A minimum of 1 PDH in each biennial licensing term shall be earned from the participation in the completion of qualifying programs with content related to the following:
  - 1. The awareness of ethical concerns and conflicts related to the practice of engineering;
  - 2. An enhanced familiarity with the code of conduct for professional engineers;
  - 3. An understanding of standards of practice or care related to the practice of engineering; or
  - 4. Laws and regulations applicable to the practice of engineering in Maryland.
- C. A maximum of 8 PDH hours earned in excess of 16 units that are required for license renewal during the licensing term can be carried forward to apply as credit toward the next individual licensing term.
- D. Licensees renewing for the first time after receiving their initial license are exempt. Carry-forward hours are not permitted on the first renewal cycle.

Renewing engineers may download the <u>CPC Reporting Form</u> (Word) for use in maintaining your records. The records must be maintained for at least four years from the date of completion of the qualifying program.

## **Course Introduction**

Besides meeting specific requirements, such as education, experience, and examination, a professional engineer must get familiar with the state laws and rules in order to practice engineering in any state. While the laws and rules do vary from state to state, the basic requirements for the qualifications and professional conduct are very similar throughout the United States.

Many state boards periodically disclose in their newsletters the disciplinary actions taken by the boards against the licensees who violated the Board Rules. The most common types of violations are:

- 1. Performed services outside his/her area of competence.
- 2. Practiced engineering without being licensed in the state of the project.
- 3. Practiced or offered to practice engineering while not properly licensed.
- 4. Failed to have a resident licensed professional in responsible charge in each office.
- Board Laws & Rules
- 5. Failed to properly sign, seal and date documents.
- 6. Affixed his/her seal to work not done under his/her direct supervision or responsible charge and without preparing his/her own evaluations and written report.
- 7. Affixed his/her seal to inadequate design documents, failing to protect the public.

Other types of violations include:

- 1. Produced a deficient, substandard, or inaccurate report, failing to protect the public.
- 2. Contracted with the non-licensed individual to provide certain professional services.
- 3. Failed to avoid conflicts of interest.
- 4. Committed a crime.

To avoid the above violations, it is highly recommended that all licensees periodically review the Board Laws and Rules. As a professional engineer, the licensee shall at all times recognize the primary obligation to protect the safety, health, property, and welfare of the public. If a licensee's professional judgment is overruled under circumstances where the safety, health, or welfare of the public is endangered, he/she shall inform the proper authorities and his/her employer of the situation as may be appropriate.

### www.PDHonline.com PDH Course R701 www.PDHonline.com Title 09 DEPARTMENT OF LABOR, LICENSING, AND REGULATION

### Subtitle 23 BOARD FOR PROFESSIONAL ENGINEERS

#### **Chapter 01 Procedural Regulations**

Authority: Business Occupations and Professions Article, §14-205 and 14-208; State Government Article, §10-204; Annotated Code of Maryland

09.23.01.01. 01 Duties of Board Officers.

A. The Chairman shall preside at meetings of the Board, execute the decisions of the Board, and perform other duties which the Board may from time to time direct.

B. The Vice-Chairman shall perform duties that the Board may from time to time direct. In the absence of the Chairman, the Vice-Chairman shall preside at meetings of the Board and perform other duties of the Chairman as directed by the Board.

C. The Secretary shall perform such duties as the Board may from time to time direct.

09.23.01.02. 02 Board Meetings.

A. A meeting of the Board shall be held each month at the Maryland Department of Labor for the purpose of acting upon applications and conducting other business, except that a specific meeting may be cancelled by the consent of the Board.

B. The regular meeting held in the month of July shall be designated the Annual Meeting. At this meeting, Board officers shall be elected for the fiscal year beginning July 1. If the July meeting is cancelled, the next regular meeting shall be designated the Annual Meeting.

C. Special meetings, in addition to the regular meetings, may be held at any time or location at the discretion of the Board.

D. A special meeting may be called by the Board or by the Chairman.

09.23.01.03. 03 Licensee's Seal.

A. A licensee who engages in the practice of engineering in Maryland shall obtain an impression seal or a rubber stamp facsimile.

B. A licensee's seal shall be a seal consisting of the pictorial device of the Great Seal of Maryland as a center, surrounded by the words "State of Maryland" and "Professional Engineer" and the licensee's name and license number.

09.23.01.04. 04 Examinations.

A. All examinations, except by specific action of the Board to the contrary, shall be those developed by the National Council of Examiners for Engineering and Surveying (NCEES).

B. An applicant shall apply directly to NCEES to take or retake the Fundamentals of Engineering examination.

C. An applicant to take or retake any of the Principles and Practice of Engineering examinations (the PE

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examination) shall apply directly to the Board. Applications which are not complete in all respects, as detailed in the most current application form, will not be reviewed by the Board.

D. An applicant who fails any PE examination three times may take the examination again only if the applicant complies with the requirements set forth in Business Occupations and Professions Article, §14-309, Annotated Code of Maryland, and submits to the Board documentation that is acceptable to the Board indicating the applicant's updated work experience or education.

09.23.01.9999. Administrative History

Effective dates:

Regulations .01-.08 effective April 9, 1973

Regulation .09 effective November 27, 1974 (1:5 Md. R. 241)

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Chapter revised effective January 23, 1981 (8:2 Md. R. 111)

Regulation .07A amended effective April 23, 1984 (11:8 Md. R. 714)

Regulation .09B amended effective December 24, 1982 (9:24 Md. R. 2389); July 9, 1990 (17:13 Md. R. 1610)

Regulation .09C-F amended effective February 14, 1983 (10:3 Md. R. 209)

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Chapter revised effective September 28, 1992 (19:19 Md. R. 1705)

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Chapter revised effective March 1, 2004 (31:4 Md. R. 314)

Regulation .04 amended effective June 13, 2011 (38:12 Md. R. 704); September 1, 2014 (41:17 Md R. 970); April 8, 2019 (46:7 Md. R. 370)

#### **Chapter 02 Hearing Regulations**

Authority: State Government Article, §10-204; Business Occupations and Professions Article, §14-205 and 14-208; Annotated Code of Maryland

09.23.02.01. 01 Hearings Before the Board.

A. Except as otherwise provided in §B of this regulation, all contested case hearings before the Board are governed by COMAR 09.01.02.

B. The administrative unit shall send the hearing notice described in COMAR 09.01.02.07B at least 30 days before the hearing.

09.23.02.02. 02 Hearings Delegated to the Office of Administrative Hearings.

All contested case hearings delegated to the Office of Administrative Hearings are governed by COMAR 09.01.03.

09.23.02.9999. Administrative History

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Chapter revised effective September 28, 1992 (19:19 Md. R. 1705).

Regulations .01—08 repealed and new Regulations .01 and .02 adopted effective March 1, 2004 (31:4 Md. R. 314)

#### **Chapter 03 Code of Ethics**

Authority: Business Occupations and Professions Article, §14-205, 14-208, and 14-4A-02, Annotated Code of Maryland

09.23.03.01. 01 Responsibility to the Public.

Effective date: January 23, 1981 (8:2 Md. R. 111).

A licensee shall make every reasonable effort to protect the safety, health, property, and welfare of the public. If the licensee's professional judgment is overruled under circumstances when the safety, health, property, or welfare of the public is endangered, the licensee shall inform the employer or client of the possible consequences.

09.23.03.02. 02 Public Statements, Reports, and Testimony.

A. A licensee making public statements on engineering questions shall disclose when the licensee is being compensated for making the statement.

B. A licensee may express publicly a professional opinion on an engineering subject only when that opinion is founded upon adequate knowledge of the material facts and a background of technical competence in the subject matter.

C. In any professional report, statement, or testimony, a licensee may not be untruthful, deceptive, or misleading.

09.23.03.03. 03 Competency for Assignments Undertaken or Approved.

A. In practicing engineering, a licensee shall act with reasonable care and competence, and shall apply the technical knowledge and skills which are ordinarily applied by professional engineers of good standing, practicing in the same field of engineering.

B. A licensee may undertake to perform engineering assignments only when qualified to do so by education or experience, or both, in the specific field of engineering involved.

09.23.03.04. 04 Conflicts of Interest.

A. A licensee shall make every effort to avoid conflicts of interest with the employer or client. Whenever conflicts of interest appear unavoidable, however, the licensee shall disclose promptly and fully all the circumstances to the employer or client.

B. A licensee shall inform promptly an employer or client of any business association, interest, or circumstances which may influence the judgment or the quality of services rendered to the employer or client.

C. A licensee may not accept compensation, financial or other, from more than one party for services pertaining to a project unless full disclosure is made by the licensee to all interested parties.

D. A licensee may not solicit or accept financial or other valuable consideration from any material or equipment supplier for specifying the supplier's products, except when the licensee is a previously

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announced employee or agent of the supplier.

E. When acting as the interpreter of engineering documents and the judge of performance under the documents, a licensee shall render decisions impartially, not favoring either party to the documents.

09.23.03.05. 05 Full Disclosure.

A. A licensee shall accurately represent to a prospective or existing client or employer the licensee's qualifications and the scope of the licensee's responsibility in connection with work for which the licensee is claiming credit.

B. A licensee may not deliberately make a materially false statement or fail deliberately to disclose a material fact requested in connection with the licensee's application for licensure or renewal of licensure.

09.23.03.06. 06 Compliance with Laws.

A. In the conduct of the licensee's engineering practice, the licensee may not knowingly violate any state or federal criminal laws.

B. A licensee shall comply with the licensing laws and regulations governing the licensee's professional practice in this or any other jurisdiction in which the licensee practices engineering.

09.23.03.07. 07 Professional Conduct.

A. A licensee may not either offer or make any payment or gift to a government official, whether elected or appointed, with the intent of influencing the official's judgment in connection with a prospective or existing project in which the licensee is interested.

B. A licensee may not either offer or make any gifts, other than gifts of nominal value including, for example, reasonable entertainment and hospitality, with the intent of influencing the judgment of an existing or prospective client in connection with a project in which the licensee is interested.

C. A licensee may not engage in conduct involving fraud or wanton disregard of the rights of others.

D. A licensee may not assist the application for licensure of a person known by the licensee to be unqualified in respect to education, training, experience, or character.

E. A licensee possessing knowledge of a violation of this chapter by another licensee shall report this knowledge to the Board.

09.23.03.08. 08 Names of Entities.

A. An individual, a partnership, a corporation, a limited liability company, or any other entity through which engineering is practiced, shall use a name that complies with appropriate requirements set forth in the Corporations and Associations Article, Annotated Code of Maryland, and Business Occupations and Professions Article, Title 14, Annotated Code of Maryland.

B. A business entity may not use the term "engineering" or any of its derivatives, unless that entity employs, on a regular basis, a licensed professional engineer.

C. A misleading designation may not be used or implied in the name of a sole proprietorship, partnership, or corporation, limited liability company, or any other entity offering engineering services in Maryland.

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09.23.03.09. 09 Signing and Sealing Requirements.

A. A licensee may sign and seal plans, specifications, drawings, reports, or other documents that are required to be signed and sealed pursuant to the Business Occupations and Professions Article, §14-4A-02, Annotated Code of Maryland, only if the following requirements are met:

(1) The licensee is competent in the subject matter of those documents by virtue of education or experience, or both; and

(2) The licensee either:

(a) Personally prepared the documents, or

(b) Approved the documents.

B. Definition. For purposes of §A(2)(b) of this regulation, the term "approved" means that the licensee satisfied the following criteria:

(1) Had technical knowledge and responsible control over the content of technical submissions during their preparation; and

(2) Performed substantive review and had authority to make revisions with regard to the preparation of submissions described in this regulation.

C. A licensee may complete, correct, revise, or add to the work performed by another licensee when engaged to do so by a client, if the following requirements are met:

(1) The client furnishes the documentation of the work submitted to the client by the first licensee;

(2) The first licensee, if still engaged in a business of providing engineering services, is notified in writing by the second licensee of the engagement referred to in this section immediately upon acceptance of the engagement; and

(3) The second licensee signs, seals, and is responsible for the completions, corrections, revisions, or additions that the second licensee made.

D. Nothing in §C of this regulation is intended to relieve the first licensee from any liability that the first licensee is deemed to assume for work performed by the first licensee pursuant to the requirements set forth in this regulation.

E. Original Signature.

(1) A licensee who prepared or approved documents in accordance with the criteria set forth in this regulation shall place the licensee's original signature and date of the signature on the documents required to be signed and sealed pursuant to Business Occupations and Professions Article, §14-4A-02, Annotated Code of Maryland.

(2) For the purposes of this regulation, the term "original signature" means:

(a) A handwritten signature in permanent ink; or

(b) A digital signature, which satisfies the following requirements:

(i) It contains identification unique to a licensee using it, such as the licensee's name and license number;

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(ii) It is under the exclusive control of the licensee using it;

(iii) It cannot be repudiated and is independently verifiable; and

(iv) It is linked to the document in such a manner that any subsequent modifications to the document after the digital signature was appended to it will result in the document no longer being prepared or approved by the licensee.

F. Nothing in this regulation is intended to modify any of the requirements applicable to professional certifications or titleblocks more specifically set forth in Regulation .10 of this chapter.

09.23.03.10. 10 Titleblock Rules.

A. A person may not remove a titleblock from any print or reproduction of the documents described in this chapter.

B. The titleblock shall contain at least the printed name of the engineering entity.

C. The directors of a corporation, partners of a partnership, or members of a limited liability company through which engineering is practiced, may designate another employee of the entity to sign and seal the documents in accordance with the requirements set forth in this chapter, if:

(1) The designee is licensed in the State to practice engineering; and

(2) The designee prepared or approved the documents for a particular project in accordance with this chapter.

D. Documents described in this chapter shall contain the following certification: "Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No.\_\_\_\_\_, Expiration Date:\_\_\_\_\_\_."

E. The titleblock, certification, seal, and signature shall appear close to each other.

09.23.03.11. 11 Failure to Respond.

A. An applicant or licensee shall respond in writing to a written communication from the Board within 30 days of the date of mailing.

B. The Board shall send a written communication by first-class mail to the last known address furnished to the Board by an applicant or licensee.

C. It is a responsibility of an applicant or licensee to notify the Board in writing if there has been a change in applicant's or licensee's address.

D. Failure to respond as required by this regulation may be considered by the Board to be a violation of Business Occupations and Professions Article, §14-317(a)(1)(vi), Annotated Code of Maryland.

09.23.03.9999. Administrative History

Regulations .01, .04, .05, and .07 amended effective December 29, 1978 (5:26 Md. R. 1922)

Originally promulgated as COMAR 09.23.01.10. Recodified effective January 23, 1981 (8:2 Md. R. 111)

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Regulation .04D adopted effective September 7, 1987 (14:18 Md. R. 1965)

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Chapter revised effective September 28, 1992 (19:19 Md. R. 1705)

Regulations .02-.06 repealed and new Regulations .02-.10 adopted effective December 29, 1997 (24:26 Md. R. 1757)

Regulation .03B amended effective March 1, 2004 (31:4 Md. R. 314)

Regulation .09 amended effective September 1, 2014 (41:17 Md R. 970)

Regulation .09E amended effective July 16, 2018 (45:14 Md. R. 696)

Regulation .10D, E adopted effective July 2, 2007 (34:13 Md. R. 1151)

Regulation .11 adopted effective October 20, 2008 (35:21 Md. R. 1824)

Regulation .11 amended effective December 17, 2018 (45:25 Md. R. 1205)

#### Chapter 04 Fees

Authority: Business Occupations and Professions Article, §14-101, 14-207—14-209, 14-306, 14-310—14-312, 14-314—14-316, and 14-320; Business Regulation Article, §2-106, 2-106.1, and 2-106.2; Annotated Code of Maryland

#### 09.23.04.01. 01 Purpose.

This chapter is intended to carry out the provisions of Business Regulation Article, §§2-106.1 and 2-106.2, Annotated Code of Maryland, and Business Occupations and Professions Article, Title 14, Annotated Code of Maryland. In particular, it is intended to set various fees in order to cover the actual documented direct and indirect costs of fulfilling the statutory and regulatory duties of the State Board of Architects, the State Board of Certified Interior Designers, the State Board of Examiners of Landscape Architects, the State Board for Professional Engineers, and the State Board for Professional Land Surveyors.

09.23.04.02. 02 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "Board" means the State Board for Professional Engineers.

(2) "Design boards" means collectively the:

(a) State Board of Architects;

(b) State Board of Certified Interior Designers;

(c) State Board of Examiners of Landscape Architects;

(d) Board; and

(e) State Board for Professional Land Surveyors.

(3) "License fee" means the fee paid by an applicant or licensee, as applicable, in connection with the

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issuance and renewal of a license and the issuance of a limited license and a reciprocal license.

(4) "Secretary" means the Secretary of Labor.

09.23.04.03. 03 Fees and Costs.

A. The Secretary and the design boards have agreed to average their direct and indirect costs, based on the calculation of costs performed by the Secretary in consultation with the design boards. Based on these calculations, the Board sets the following fees:

(1) License fee - \$76.50;

(2) Engineer-in-training certification fee - \$15;

(3) Nonrefundable initial application fee payable in connection with:

(a) An application for license - \$50;

(b) An application for license by reciprocity - \$50;

(4) Reinstatement fee - \$100;

(5) Retired Status License fee - \$50;

(6) Reactivation fee - \$168;

(7) Verification fee - \$20;

(8) Replacement license certificate fee - \$35.

B. An applicant for the appropriate licensing examination shall pay the examination, re-examination, or testing service fees directly to the National Council of Examiners for Engineering and Surveying (NCEES), as these fees are established by NCEES.

C. An applicant approved by the Board to take the appropriate licensing examination, and to whom the Board or the Board's designee sent an applicable admission notice, is not entitled to a refund of applicable fees paid under §B of this regulation.

D. An applicant who notifies the Board or the Board's designee of the applicant's election not to take the appropriate licensing examination before the Board or the Board's designee sends to the applicant an applicable admission notice is entitled to a refund of applicable fees under §B of this regulation.

09.23.04.9999. Administrative History

Effective date: September 28, 1981 (8:19 Md. R. 1565).

Regulation .01 amended effective April 25, 1983 (10:8 Md. R. 725); December 28, 1987 (14:26 Md. R. 2745); August 8, 1988 (15:16 Md. R. 1914); October 17, 1988 (15:21 Md. R. 2468); July 19, 1993 (20:14 Md. R. 1168); February 28, 1994 (21:4 Md. R. 276)

Regulation .01 repealed and new Regulation .01 adopted as an emergency provision effective August 22, 1997 (24:19 Md. R. 1335); adopted permanently effective December 29, 1997 (24:26 Md. R. 1757)

Regulation .01 amended as an emergency provision effective October 15, 1998 (25:23 Md. R. 1694); emergency status expired April 15, 1999

Regulation .01 amended as an emergency provision effective June 7, 1999 (26:13 Md. R. 1017);

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emergency status expired August 22, 2000; amended permanently effective October 18, 1999 (26:21 Md. R. 1629)

Regulation .01 amended as an emergency provision effective December 11, 2000 (28:1 Md. R. 20); amended permanently effective April 30, 2001 (28:8 Md. R. 760)

Regulation .01B amended as an emergency provision effective February 25, 2000 (27:7 Md. R. 703); amended permanently effective October 30, 2000 (27:21 Md. R. 1975)

Regulation .02 adopted effective December 24, 1982 (9:24 Md. R. 2389)

Regulation .02 repealed effective September 28, 1992 (19:19 Md. R. 1705)

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Regulation .01 repealed and new Regulations .01—.03 adopted as an emergency provision effective July 1, 2003 (30:14 Md. R. 933); adopted permanently effective November 10, 2003 (30:22 Md. R. 1579)

Regulation .03 amended effective July 11, 2011 (38:14 Md. R. 789)

Regulation .03A amended effective March 12, 2007 (34:5 Md. R. 560); November 1, 2010 (37:22 Md. R. 1553); January 23, 2012 (39:1 Md. R. 17); March 4, 2013 (40:4 Md. R. 345); December 12, 2013 (40:24 Md. R. 2016)

Regulation .03B amended effective May 10, 2004 (31:9 Md. R. 712)

Regulation .03B amended as an emergency provision effective April 13, 2008 (35:9 Md. R. 892); amended permanently effective July 17, 2008 (35:14 Md. R. 1246)

Regulation .03B, E amended as an emergency provision effective April 4, 2006 (33:9 Md. R. 795); amended permanently effective August 14, 2006 (33:16 Md. R. 1365)

Regulation .03B amended effective January 23, 2012 (39:1 Md. R. 17); November 11, 2013 (40:22 Md. R. 1876); April 24, 2017 (Md. R. 402); September 10, 2018 (45:18 Md. R. 834)

Regulation .03E repealed effective September 10, 2018 (45:18 Md. R. 834)

#### Chapter 05 Unapproved Option—Engineering Curriculum

Authority: Business Occupations and Professions Article, §14-205, 14-208, and 14-305, Annotated Code of Maryland

09.23.05.01. 01 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "Board" means the Board for Professional Engineers.

(2) "Engineering subject" means an area of study rooted in mathematics and basic sciences but carried further towards creative application and design by providing a bridge between basic science and engineering practice.

(3) "One quarter hour" means credit which is awarded for instruction equivalent to 2/3 of the contact hours required for 1 semester hour of credit.

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(4) "One semester hour" means credit which is awarded for a minimum of:

(a) 15 hours (50 minutes each) of actual class time, exclusive of registration, study days, and holidays;

(b) 30 (50 minutes each) of supervised laboratory time, exclusive of registration, study days, and holidays.

09.23.05.02. 02 Engineering Curriculum.

A. An engineering curriculum is a course of study which imparts knowledge of the mathematical and natural sciences and trains an individual to apply that knowledge to developing ways to use the materials and forces of nature for the benefit of mankind. An "engineering curriculum of 4 scholastic years or more" is defined to be both an approved and unapproved college or university engineering and sciences curriculum consist of at least:

(1) 15 semester-hours of instruction in mathematics that emphasizes mathematical concepts and principles rather than computation, which shall include differential calculus, integral calculus, and differential equations;

(2) 15 semester-hours of instruction in basic sciences including general chemistry and general physics with calculus;

(3) 30 semester-hours of instruction in engineering subjects, that includes a course, project, or thesis that focuses upon engineering design; and

(4) 15 semester-hours of instruction in advanced mathematics, basic science, or engineering.

B. Incorporated in the engineering curriculum as integral elements of instruction shall be:

(1) Hands-on, quantitative laboratory work correlated with the science and design instruction;

(2) For graduation subsequent to 1975, at least one high-level computer language such as FORTRAN, PASCAL, C/C++, or MATLAB so that the student is able to compose computer programs to solve problems in science and design; and

(3) Demonstrated familiarity with probability, statistics, and linear algebra.

09.23.05.03. 03 Engineering Subject Courses.

Engineering subject courses shall be selected from subject areas such as:

- A. Statics and dynamics;
- B. Strength of materials;
- C. Materials science;
- D. Thermodynamics;
- E. Transfer and transport phenomena;
- F. Electrical, electronic, and computer engineering;
- G. Solid state physics, nuclear physics, and quantum optics;
- H. Physical chemistry, inorganic, and organic chemistry;

I. Electrodynamics;

J. Digital signals and systems;

K. Finite element analysis;

L. Transient analysis and feedback control theory;

M. Engineering design;

N. Fluid mechanics, hydraulics, and gas dynamics;

O. Civil and structural engineering;

P. Sanitary and environmental engineering;

Q. Computer science, other than computer programming skills;

R. Biochemistry, biophysics, and biomechanics;

S. Geochemistry and geophysics;

T. Engineering economics; or

U. Other subject areas acceptable to the Board.

09.23.05.04. 04 Evidence of Completion.

An applicant who has graduated from a college or university curriculum which does not meet the standards set forth in Regulation .02 of this chapter may present to the Board evidence of satisfactory completion of instruction in other programs of study required by the Board to meet the requirements of Regulation .02 of this chapter.

09.23.05.05. 05 Burden of Persuasion.

The applicant shall:

A. Have the burden of persuasion that the applicant's curriculum is substantially equal to the engineering curriculum defined in Regulation .02 of this chapter.

B. Submit a university circular, official college catalog which includes, as a minimum, brief course descriptions of the courses identified in the student academic transcript or an independent evaluation satisfactory to the Board. When the evidence submitted by the applicant does not appear to the Board to qualify the curriculum as an engineering curriculum, the Board may require the applicant to submit further evidence.

09.23.05.06. 06 Approved and Unapproved Curricula.

The Board considers an applicant's curriculum to be an approved curriculum if the applicant is:

A. A graduate of a bachelor's degree program in a branch of engineering for which the college or university has met the basic-level criteria of the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET), and which is listed in the ABET Accreditation Yearbook, as it may be amended or modified from time to time;

B. A graduate of a master's or doctoral degree program in a branch of engineering for which the college or university has met the advanced-level criteria of the EAC/ABET, and which is listed in the ABET

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Accreditation Yearbook, as it may be amended or modified from time to time;

C. A graduate of a master's or doctoral degree program in a branch of engineering for which the college or university has met the basic-level criteria described in §A of this regulation; or

D. A graduate of a degree program approved by the Board.

09.23.05.9999. Administrative History

Effective date: January 14, 1988 (15:1 Md. R. 19).

Chapter revised effective September 28, 1992 (19:19 Md. R. 1705)

Regulation .02A amended effective June 26, 2000 (27:12 Md. R. 1139)

Regulation .02 amended effective March 4, 2002 (29:4 Md. R. 417)

Regulation .03F—H and M amended and N—U adopted effective March 4, 2002 (29:4 Md. R. 417)

Regulation .05 repealed and Regulation .06 amended and recodified to Regulation .05 effective March 4, 2002 (29:4 Md. R. 417)

Regulation .06 adopted effective March 4, 2002 (29:4 Md. R. 417)

#### **Chapter 06 Continuing Professional Competency Requirements**

Authority: Business Occupations and Professions Article, §14-314, Annotated Code of Maryland

09.23.06.01. 01 Purpose.

The public interest requires that professional engineers provide competent services in all areas of practice. The State legislature has determined that it is in the best interest of the public to require professional engineers to comply with the continuing professional competency requirements as a prerequisite to the renewal of a license.

09.23.06.02. 02 Definitions.

A. In this chapter, the following terms have the meaning indicated.

B. Terms Defined.

(1) "Activity" means attending and completing any qualifying courses, seminars, workshops, technical presentations, and other qualifying programs with a clear purpose and objective that will maintain, improve, or expand the skills and knowledge relevant to the licensee's field of practice. Regular duties in the course of employment are not considered qualified activities.

(2) "Authorized provider" means an organization or individual reviewed and approved by the Board.

(3) "Board" means the State Board for Professional Engineers.

(4) "Dual Licensee" means a person who is licensed as both a professional engineer and a professional land or property line surveyor.

(5) "NCEES" means the National Council of Examiners for Engineering and Surveying.

(6) "Professional Development Hour (PDH)" means a contact hour (nominal) of instruction or presentation and is the common denominator for other units of credit.

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(7) "Qualifying program" means any course, seminar, workshop, technical presentation, or other qualifying offering that meets the criteria set forth in Regulation .04 of this chapter.

(8) "Reporting period" means a 2-year licensing period immediately preceding a current individual licensing term.

(9) "Self-directed activity" means an activity that does not involve a face-to-face direct learning experience. The self-directed activity may include, but is not limited to, correspondence courses, online courses, and televised, videotaped, or audiotaped presentations and shall provide for, in addition to the requirements in Regulation .04 of this chapter, clear outcome measures in the form of a narrative, test, report, study, research paper, or any other appropriate form or method.

09.23.06.03. 03 Requirements.

A. A licensee shall complete a minimum of 16 PDH units earned from the participation in and completion of qualifying programs described in Regulation .04 of this chapter as a condition of license renewal in each individual biennial licensing term.

B. A minimum of 1 PDH unit in each individual biennial licensing term shall be earned from the participation in and the completion of qualifying programs with content areas related to the following:

(1) The awareness of ethical concerns and conflicts related to the practice of engineering;

(2) An enhanced familiarity with the code of conduct for professional engineers;

(3) An understanding of standards of practice or care related to the practice of engineering; or

(4) Laws and regulations applicable to the practice of engineering in Maryland.

C. A maximum of 8 PDH units earned in excess of 16 units that are required for a license renewal during the licensing term can be carried forward to apply as credit toward the next individual licensing term.

09.23.06.04. 04 Qualifying Programs.

A. Programs shall meet at least the following criteria in order to be considered qualifying programs:

(1) Maintain and enhance professional competency of professional engineers; and

(2) Foster improvement, advancement, and extension of professional skills and knowledge related to the practice of engineering.

B. Qualifying programs shall have the following content areas:

(1) Technical, research, analytical, or design aspects of engineering;

(2) Laws and regulations applicable to the practice of engineering in Maryland;

(3) Engineering-related computer hardware and software topics;

(4) Standards of practice or care;

(5) Professional engineering ethics;

(6) Project management, risk assessment and management, or emergency and disaster management; or

(7) Similar topics aimed to maintain, improve, or expand the skills and knowledge relevant to the licensee's field of practice.

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C. The determination of whether the activity constitutes a qualifying activity is within the discretion of the Board.

09.23.06.05. 05 Sources of Credit.

A. A licensee may earn PDH units by any of the following methods:

(1) Attending and successfully completing qualifying programs in which the teaching methodology consists primarily of systematic presentation of subjects related to the practice of engineering, and which programs are:

(a) Offered by pre-approved or other authorized providers;

(b) Have a stated purpose and defined content areas; and

(c) Have a clearly stated duration.

(2) Serving as a single or first author of an original paper on engineering subject matters published in magazines, journals, professional proceedings, or other similar publications intended for professional use and distribution;

(3) Serving as a single or first author of an originally published book on engineering subject matters that exhibits excellence in scholarship and has a significant impact and influence on the direction of engineering;

(4) Subject to limitations set forth in Regulation .06 of this chapter, active participation in an engineering professional or technical society;

(5) Obtaining a patent;

(6) Subject to limitations set forth in this Regulation .05, teaching or lecturing of a qualified program, as described in Regulation .04 of this chapter;

(7) Developing examination questions accepted for use on NCEES examinations; or

(8) Other appropriate methods approved by the Board.

B. A licensee may not earn credits for such activities as:

(1) Regular employment as a professional engineer, full-time faculty member, or expert witness;

(2) Marketing or business development or sales;

(3) Equipment demonstrations or trade show displays;

(4) Time management techniques and strategies;

(5) Computer-aided drafting;

(6) Repetitive attendance of the same course or activity;

(7) Attending committee meetings or general business meetings of any organization;

(8) Conversational language courses for personal use;

(9) Executive coaching;

(10) Basic computer software, including, but not limited to, Excel, Word, Outlook, and similar basic

(11) Any other topics not relevant to the practice of engineering.

09.23.06.06. 06 Values of Units.

A. PDH units are earned or converted from other units of credit as follows:

(1) 1 college or unit semester hour - 45 PDH units;

(2) 1 college or unit quarter hour - 30 PDH units;

(3) 1 continuing education unit - 10 PDH units;

(4) Each published paper or article on an engineering subject as identified in Regulation .04 of this chapter — 5 PDH units;

(5) Each published book on an engineering subject — 24 PDH units;

(6) Teaching of engineering and related subjects on a part-time basis, provided that:

(a) The presenter may claim credit for the first time presentation of the qualifying program; and

(b) The presenter may claim up to 2 times the number of PDH units awarded by the Board for the same program;

(7) Participation in engineering, professional or technical societies, regardless of the number of organizations a licensee may be serving on simultaneously, as an officer, provided that the credit is not considered earned until the end of each year of service completed -1 PDH unit;

(8) Work related to the development and submission of examination questions subject to the following limitations:

(a) Questions accepted for use on NCEES examinations — 2 PDH units per accepted question, up to 4 PDH units per year; and

(b) Attendance and participation in NCEES exam development committee meetings — up to 6 PDH units per year; and

(9) Obtaining a patent — 8 PDH units.

B. The final determinations of value and other matters related to the PDH units are the responsibility of the licensee, subject to review and approval by the Board.

09.23.06.07. 07 Authorizations of Providers/Other Presenters.

A. The Board will review and, if appropriate, approve the providers of the qualifying programs.

B. Providers' Eligibility/Other Presenters.

(1) The following providers are considered to be preauthorized providers without any further action by the Board:

(a) National (ABET/EAC), regional, or State accredited academic institutions;

(b) National, State, or regional engineering professional or technical societies or organizations;

(c) NCEES;

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(d) American Council of Engineering Companies;

(e) International Association for Continuing Education and Training;

(f) Entities that are currently certified as approved providers by preauthorized providers; and

(g) Other entities that may from time to time become approved by the Board.

(2) In order to be eligible to become an approved provider, the provider must offer the qualifying activity that meets the criteria set forth in Regulation .04 of this chapter.

(3) The Board may allow appropriate credits for the attendance and participation in a technical activity or presentation by companies or organizations, whether or not approved by the Board under this regulation, if:

(a) The activity or presentation is consistent with Regulation .04 of this chapter; and

(b) A licensee maintains required documentation in accordance with Regulation .08 of this chapter, including a test or other appropriate outcome measure acceptable to the Board.

(4) Approval of Providers.

(a)The individuals or entities that are not considered to be pre-approved providers, including, but not limited to, professional firms conducting in-house presentations, may be approved by the Board to become authorized providers upon application and approval by the Board.

(b) During the application process, the Board will evaluate the suitability of the provider to serve as an approved provider.

(c) The provider shall submit general information that will enable the Board to evaluate the provider's qualifications. At a minimum, the Board requires the following information to be submitted with each application for approval:

(i) The types and descriptions of proposed or existing courses intended to be offered;

(ii) The number of PDH units to be awarded for each course;

(iii) The identity and qualifications of the course instructors;

(iv) The explanation and sample of outcome measures for any self-directed programs that may be offered; and

(v) The sample course outlines detailing the content of activity to be offered.

(d) The Board may suspend or revoke authorization as a provider if, in the judgment of the Board, the intent of Business Occupations and Professions Article, §14-314(f), Annotated Code of Maryland, is no longer served.

(e) An individual or organization whose provider's privilege has been suspended or revoked may appeal to the Board for a hearing, within 30 days after notification of the action by the Board.

(f) The Board may require approved providers to document the CPC activities for audit by the Board at any time within the 6-year period after the first presentation of the programs. Documentation shall include registration and attendance records, stated purpose, content, presentation, time and length of the activity, and participant evaluations.

C. The Board shall maintain and make available to licensees, as often as it considers appropriate, a roster ©2023 John C. Huang, Ph.D., PE Page **19** of **24** 

09.23.06.08. 08 Record Keeping.

A. Responsibility to Maintain Records.

(1) The responsibility of maintaining records to be used to support the continuing professional competency credit claim is the responsibility of each licensee.

(2) A licensee shall maintain the records for a period of at least 4 years from the date of completion of the qualifying program.

B. Documentation referred to in §A(2) of this regulation, includes, but is not limited to, the following:

(1) Certificates of participation;

(2) Transcripts, if appropriate;

(3) Reprints of publications;

(4) Proof of presentations;

(5) Title and description of the activity;

(6) Dates and times attended;

(7) Presenter's name; and

(8) Any other information that may be required by the Board.

09.23.06.09. 09 Reporting Requirements for License Renewal.

A. A licensee shall attest on the license renewal form to the fact that the licensee has completed all applicable CPC requirements set forth in this chapter before the licensee's license expiration date.

B. The Board at its discretion may audit licensees to ascertain compliance with CPC requirements.

C. Licensees who are audited shall provide any additional documentation required by the Board to complete the audit.

09.23.06.10. 10 Exceptions from Compliance with CPC Requirements.

A. Notwithstanding other requirements set forth in this chapter, a licensee who is granted an initial license may renew a license for the next full term without complying with the CPC requirements if:

(1) The licensee has been granted an initial license and is renewing a license for the next full term; and

(2) The licensee qualifies under the criteria set forth in Title 2.5, Business Regulation Article, Annotated Code of Maryland.

B. Compliance Exception Request.

(1) If a licensee is unable to comply with all or part of CPC requirements due to physical disability, illness, or other extenuating circumstances, the licensee may request the Board or the Board's administrative designee grant a one-time exception from compliance (Compliance Exception Request), provided that the Compliance Exception Request is filed with the Board or the Board's administrative designee at least 30 days prior to the licensee's license expiration date.

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(2) If a Compliance Exception Request is based on physical disability or illness, the licensee must provide the Board or the Board's designee with written documentation acceptable to the Board supporting the basis for the request.

(3) A Compliance Exception Request must be accompanied by a detailed proposal acceptable to the Board indicating the licensee's intended plan of compliance with CPC requirements within no later than 6 months after the license expiration date. Failure to provide an acceptable plan of compliance within the time period specified in this regulation may result in the Board's administrative dismissal of the Compliance Exception Request.

#### 09.23.06.11. 11 Failure to Meet the CPC Requirements.

In the event a licensee fails to comply with the CPC requirements set forth in this chapter, the Board, subject to the hearing provisions of Business Occupations and Professions Article, §14–319, Annotated Code of Maryland, may take any and all available disciplinary actions under Business Occupations and Professions Article, §14–317, Annotated Code of Maryland.

09.23.06.12. 12 Reinstatement of License.

A licensee who wishes to reinstate a license shall fulfill at least 16 PDH units by attending and successfully completing one or more qualifying programs described in Regulations .03 and .04 of this chapter for the immediately preceding CPC reporting period and pay all applicable fees.

#### 09.23.06.13. 13 Retired Status.

An individual who elected to receive retired status license shall be exempt from the compliance with the CPC requirements. In the event such individual elects to have the license reactivated, the individual shall fulfill at least 16 PDH units by attending and successfully completing one or more qualifying programs described in Regulations .03 and .04 of this chapter.

09.23.06.14. 14 Dual Licensees.

A licensee who maintains current licenses in the State of Maryland both as a professional engineer and as a professional land or property line surveyor shall fulfill at least 8 PDH units that satisfy the CPC requirements set forth in COMAR 09.13.08 applicable to licensed professional land or property line surveyors, and at least 8 PDH units that satisfy the CPC requirements of this chapter.

09.23.06.15. CPC Units Earned in Other States

The Board will accept CPC units earned for qualifying activities completed in other jurisdictions, provided that:

A. The activity is consistent and complies with the requisite criteria set forth in this chapter;

B. An out-of-State licensee provides evidence of attending and completing a qualifying activity in another state, together with the applicable number of CPC units earned; and

C. An out-of-State licensee otherwise fulfills all other applicable license renewal requirements in the State of Maryland.

09.23.06.9999. Administrative History

Effective date: July 11, 2011 (38:14 Md. R. 789).

PDH Course R701 Regulation .11 amended effective August 18, 2014 (41:16 Md. R. 945) www.PDHonline.com

Chapter revised effective January 15, 2018 (45:1 Md. R. 13).

Regulation .15 adopted effective July 27, 2020 (47:15 Md. R. 713)

# Appendix: PE Seal and Titleblock Rules

Division of Occupational and Professional Licensing

### DIGITAL SIGNATURES

The Board for Professional Engineers has adopted amendments to COMAR 09.23.03.09 to allow for the use of digital signatures by licensees. It is important to note that Maryland Professional Engineers may begin using digital signatures but they are not required to do so. The amendments became effective on September 1, 2014.

### What is a digital signature?

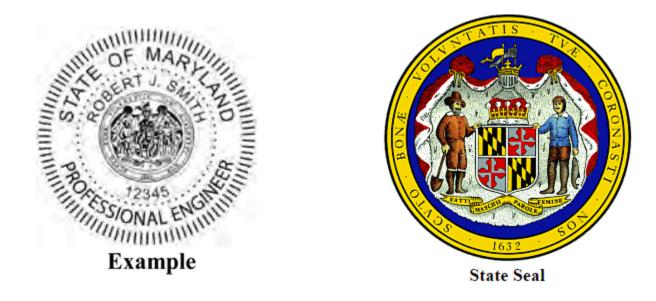
A digital signature is a type of electronic signature that has added security to ensure the identity of the signer and the integrity of the signed document. While an electronic signature is essentially an image placed into a document—easily changed or forged—a digital signature is permanently embedded into the document so that any subsequent editing will automatically invalidate the signature and the document. A digital signature is legally more acceptable than other types of electronic signatures because it offers authentication to both the individual signing the document and to the document itself.

Digital signatures can be obtained through third-party entities known as Certificate Authorities, who usually charge a fee for the service of independently verifying the identity of the signer and issuing the digital certificate. Certificate Authorities use a type of technology known as Public Key Infrastructure (PKI) to create, manage, store and distribute digital signatures. PKI technology provides the same level of security as a traditional wet signature because the digital signature cannot be copied or altered in any way. The document's authenticity is verifiable by checking the digital signature's certificate in a standard PDF viewer, and if the document has been altered since being signed, the certificate will display an "X" or a warning sign in it.

It is important to note that Maryland professional engineers may begin using digital signatures on September 1, 2014, but they are not required to do so. The amended Regulation simply allows for their use by professionals. Furthermore, the Board has no control over the requirements that may be put in place by local jurisdictions regarding the type of particular software packages acceptable to each jurisdiction. Similar regulations enabling the use of digital signatures are being promulgated by the Board of Architects, as well as the Board for Professional Land Surveyors.

### SEAL REQUIREMENTS

A Licensee's seal shall be a seal consisting of the pictorial device of the Great Seal of Maryland as a center, surrounded by the words "State of Maryland" and "Professional Engineer" and the licensee's name and license number. An impression seal, rubber stamp facsimile, or digital seal is acceptable.



### TITLEBLOCK RULES

A professional engineer is required to include the following additional certification when signing and seal plans, specifications, drawings, reports, or other documents:

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No., Expiration Date:."

The titleblock, certification, seal, and signature shall appear close to each other.