



ACCREDITING BUREAU OF HEALTH EDUCATION SCHOOLS
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MEMORANDUM

TO: ABHES-Accredited Institutions and Programs
Recognized Accrediting Agencies
State Departments of Education
U.S. Department of Education
Interested Parties

FROM: Florence Tate, Executive Director

DATE: August 18, 2017

SUBJECT: Final Revisions to *Accreditation Manual*

The Commission of the Accrediting Bureau of Health Education Schools (ABHES) considered carefully the comments received to its June 14, 2017, Call for Comment. The Commission acted to adopt the below final standards and/or revisions to the 17th Edition of the *Accreditation Manual*, effective immediately. New language is **underlined** and deleted language **struck**.

Annual Sustaining Fees*

***An Institution/Program which becomes a member (including non-main and/or satellite campus inclusions) during the first quarter of the fiscal year shall pay the full amount of applicable annual sustaining fees. An Institution/Program which becomes a member (including non-main and/or satellite campus inclusions) during any succeeding quarter shall pay a proportional amount of the applicable sustaining fees determined by the number of quarters remaining in the fiscal year after becoming a member including the quarter in which the Institution/Program became a member**

Additionally, the Commission acted to adopt the below final standards and/or revisions to become effective January 1, 2018 in the new 18th Edition of the *Accreditation Manual*. New language is **underlined** and deleted language **struck**.

INTRODUCTION TO ACCREDITATION

Unlike other countries, which have centralized authority exercising national control over educational institutions, the U.S. Constitution reserved to the states and local governments the primary responsibility for education. In interpreting and exercising that responsibility, however, the states often differed radically, and the unevenness and lack of uniformity of educational standards and practices led in the late 19th century to the beginnings of what later came to be called accreditation.

Accreditation was and is a direct creation of the academic and professional educational communities. The accrediting bodies are voluntary, non-governmental associations of institutions, programs, and professionals or practitioners in particular fields involved as a community in fulfilling two fundamental purposes: quality-assessment (evaluating an institution or program to determine whether it meets or exceeds stated standards of quality), and quality-enhancement (assisting the institution or program in continuing to improve itself).

There are two ~~basic~~ types of educational accreditation: institutional, and specialized or programmatic. Accrediting bodies that conduct accreditation are national or regional in scope and comprise the institutions that have achieved and maintain accredited status. Accrediting bodies that conduct accreditation of a program that prepares students for a profession or occupation are often closely associated with professional associations in the field.

The Accrediting Bureau of Health Education Schools (ABHES) conducts both institutional and specialized, programmatic accreditation. Formed in 1964 as the Accrediting Bureau of Medical Laboratory Schools, its present name was assumed in 1974 ~~in order~~ to identify more properly its activities and expanded scope. ABHES is recognized by the Secretary of Education as a specialized, national accrediting body determined to be a reliable authority as to the quality of training offered by the educational institutions and programs it accredits. Its² approved and recognized scope includes degree and non-degree granting private, postsecondary institutions offering educational programs predominantly in allied health; and the programmatic accreditation of public and private medical assistant, medical laboratory technician, and surgical technology programs.

~~Non-accredited institutions and programs may well have high quality and standards. They cannot, however, provide a reliable, third party assurance that they meet or exceed standards.~~ Accreditation provides that assurance of quality through. ~~The process requires~~ a rigorous self-evaluation by the institution or program, an appraisal by competent professionals who are respected peers, and a subsequent review and decision by ~~the central governing group,~~ the ABHES Commission. Periodic re-examinations are required ~~in order~~ to ensure that standards are being maintained, areas in which improvement is needed are identified, and plans are developed for addressing needed improvements. The accrediting body annually publishes lists of institutions and programs that continue to achieve an acceptable level of quality based on the established standards included in this manual.

~~ABHES believes that the accrediting process is the most significant means of raising the standards of institutions and that the process not only provides significant benefits to the institutions, but to individual practitioners in the occupational fields. Ultimately, the public, the community, and the nation benefit from competently trained personnel.~~

The *Accreditation Manual* describes the (1) general information relative to Commission operations; (2) eligibility criteria and requirements for institutional and programmatic application; (3) procedures used in the accreditation process; and (4) standards used in evaluating both institutions ~~as a whole~~, including each of its programs, and those seeking ~~new or renewed~~ programmatic accreditation. ~~The accrediting policies, procedures and standards described in this manual represent careful study, research, and continuous analysis of the best validated concepts currently in use for accreditation throughout the nation, with adaptations to institutions and programs specializing predominantly in the allied health education professions.~~

CHAPTER I – GENERAL INFORMATION

SECTION A – The Bureau

Subsection 2 – Recognition

ABHES is an independent non-profit agency unrelated to any trade or membership organization.

ABHES is recognized by the United States Secretary of Education (Secretary) for the accreditation of private, postsecondary institutions in the United States offering predominantly allied health education programs and the programmatic accreditation of medical assisting, medical laboratory technology, and surgical technology programs leading to a certificate, diploma, Associate of Applied Science, Associate of Occupational Science, Academic Associate degree, or Baccalaureate degree, and Master's degree, including those offered via distance education. This scope extends to the Substantive Change Committee, jointly with the Commission, for decisions on substantive changes.

ABHES accredits programmatically for the three programs identified above being taught in both public and private institutions. It also accredits institutionally outside of the health education area, provided the institutions retain predominance in health education (see II.A.1.~~ba~~ for ABHES' definition of predominance).

Any proposed change to the mission, policies, procedures, or accreditation standards that alters ABHES' scope of recognition or compliance with requirements for recognition will be submitted to the Secretary.

Subsection 3 – Board of Commissioners

The Board of Commissioners (Commission) is composed of a minimum of nine and a maximum of fifteen ~~thirteen~~ commissioners, including a blend of educators (academic and administrative), ~~both academics and administrators~~, practitioners, and public members. The majority~~Seven~~ of the commissioners are elected by institutional personnel representing institutions and programs accredited by ~~the Commission~~ABHES. The remaining ~~and six of the~~ commissioners are appointed by the Commission itself. At least two commissioners are owner representatives, and at least one-seventh of the commissioners represent the public~~of the appointed commissioners are representatives of the public.~~

The composition of the Commission, the qualifications of the Commissioners, the process for selecting Commissioners, ~~their~~ terms of office for Commissioners, the Commission's powers and responsibilities, the general meeting guidelines, and other important information relative to the operation of ABHES are described in detail in its Bylaws. (See Appendix H, Bylaws)

Subsection 4 – Conflicts of interest and recusal

The Commission conducts its evaluation of institutions and programs in an objective and confidential manner. ~~In order to~~ To ensure objectivity, impartiality, and integrity in the accreditation process, individuals involved in the ABHES accreditation process, including commissioners, evaluators, staff members, committee members, appeal panelists, and consultants will not be involved in considerations or evaluations of institutions or programs that constitute a conflict of interest. ~~Additionally, such individuals~~ Individuals will not accept any gratuity from a reviewed institution or program; and will not disclose any information received as the result of their involvement in the accreditation process and must. ~~It is the responsibility of each to~~ identify actual or potential conflicts of interest to the ABHES Executive Director ~~actual or potential conflicts of interest~~. The ~~executive~~ Executive

~~director~~Director, legal counsel, or the Commission will ~~then~~ determine whether the individual should be recused from review of an institution or program.

Examples of possible conflicts of interest include:

- a. Ownership of stock in the company or parent organization owning the institution.
- b. Current or prior service as an employee, officer or director of, consultant to, or in a business or financial relationship with the institution.
- c. Competition in the same service area as the institution.
- d. Personal friendship other than casual business relationship with owners, operators, or senior employees of the institution.
- e. Any other interest which affects or may affect the objective judgment of the individual (e.g., commissioner, evaluator, staff person), in the performance of his or her responsibilities.

Subsection 5 – Confidentiality

The information provided by institutions and programs subject to ABHES' accreditation will be maintained in strict confidence and ~~be~~ used solely for the purpose of evaluating the institution or program's compliance with ABHES requirements. The individuals involved in the review (~~e.g., commissioners, evaluators, staff~~), will not discuss the accreditation matters related to an institution or program outside normal Commission meetings, unless such discussion is necessary to conduct Commission business effectively. The Commission will, however, notify the Secretary of Education, state licensing agency, and other state regulatory agencies, of an action to deny or to withdraw the accreditation of an institution or program simultaneously with the issuance of its notice of the action taken to the institution, even if the appeal process is not complete.

SECTION B – Policies Affecting Institutions and Programs

Subsection 2 – Public participation

The Commission provides ~~all~~ accredited institutions and programs, the Secretary of Education, state licensing agencies, other state regulatory agencies, accrediting agencies, and other interested parties; an opportunity to comment on proposed new accreditation standards or changes to existing standards to which ABHES-accredited institutions and programs are subject. ~~ABHES also provides opportunity to comment on institutions or programs seeking new or renewal grants of accreditation.~~ If ABHES determines that it needs to make changes to its standards, it initiates action within 12 months to make the changes and completes that action within a reasonable period of time.

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Subsection 6 – Third-party contracts, transfer credits, and articulation agreements

Third-Party Contracts

Third-party contracts refers to situations in which an institution or program arranges to have some portion of its services delivered by another party. This is distinct from transfer of credit by which the institution or program recognizes coursework completed at another accredited institution. In the case of a third-party contract the services provided, including any coursework, ~~is~~ are treated as if the services had been provided directly by the institution or program.

An institution or program may contract with a third party to provide a portion of an educational program or to provide other management or services required by ABHES. ~~All such instances~~ Third-party contracts providing student instruction must be approved by ABHES prior to implementation. The institution or program seeking approval must submit a proposal that identifies the third party and the services to be provided under contract, a copy of the proposed contract, and a statement indicating that the institution or program retains responsibility for compliance with all ABHES requirements.

For degree programs, no more than 49 percent of program credits or the recognized clock-hour equivalent may be provided by any third party. Minimally, 25 percent of the coursework provided by the institution or program accredited by ABHES must consist of core courses.

Transfer Credits

Every institution must have transfer of credit policies that are publicly disclosed in accordance with 34 CFR §668.43(a) (11) of the Higher Education Act (HEA) and include a statement of the criteria established by the institution regarding transfer of credit earned at another institution of higher education. An institution or program may accept credits or clock hours earned at another institution accredited by an agency recognized by the Secretary or the Council for Higher Education Accreditation (CHEA) to satisfy specific requirements for completion of a program. An institution or program may accept credits or clock hours earned at another institution that is not located in the United States or its territories if the specific foreign education is evaluated by an agency which attests to the qualitative and quantitative equivalency of the foreign education and the specific course or courses for which transfer credit is to be awarded. The institution must use the credential evaluation services of an agency that has published standards for membership, affiliations to U.S.-based international higher education associations, and are frequently linked to and used by federal agencies, state agencies, educational institutions and employers (e.g., NACES and AICE). ~~the credential evaluation services of an agency that has published standards for membership, affiliations to national international higher education associations, and are~~

~~frequently linked to and used by federal agencies, state agencies, educational institutions and employers (e.g. NACES and AICE). (Note: language from www.ed.gov/international/unsei/edlite_index.html)~~

The institution or program must demonstrate that it has evaluated the coursework accepted for transfer in accordance with its published policies, and the basis for a conclusion that it is equivalent to the coursework for which it substitutes and meets all ABHES requirements, including competency achievement.

As is provided elsewhere in this manual, programs and institutions must clearly state their transfer of credit policies, and they are encouraged to accept transfer credits ~~as a means~~ to promote academic mobility and to avoid requiring students to unnecessarily repeat prior equivalent, ~~prior~~ coursework.

Articulation Agreements

As an alternative to case-by-case consideration of requests for transfer of credit, an institution or program may enter an articulation agreement with an institution accredited by an agency recognized by the Secretary or CHEA. An articulation agreement formalizes transfer of credits under certain specific conditions stated in the agreement and provides for acceptance of specific credits earned at the other institution to satisfy specific requirements for completion of a program. Credits accepted from another institution pursuant to an articulation agreement are transfer credits and must meet all provisions regarding transfer credits. The institution or program receiving transfer credits must demonstrate the basis for concluding that each transfer credit accepted is equivalent to the credit that it replaces in terms of the knowledge and skill the credit represents in the curriculum design. Articulation agreements are encouraged to provide opportunities for academic mobility. ~~However, all transfer of credit provisions apply to credits received pursuant to articulation agreements.~~

CHAPTER II ELIGIBILITY AND CLASSIFICATIONS

SECTION A - Eligibility for Application

Prior to consideration for accreditation, the Commission will determine preliminarily whether an institution or program meets the requirements for accreditation.

Subsection 1 – Basic requirements

a) Institutional Eligibility

In order for a postsecondary institution to apply for accreditation by the Commission and to remain accredited, it must meet the following minimum criteria:

- (1) It is (a) an institution in the private sector whose principal activity is education, (b) a hospital or laboratory-based training school, (c) a vocational training institution, or (d) a federally-sponsored training program.
- (2) It is an educational institution that offers programs predominantly in the health education field. An institution meets this requirement if (a) 70 percent or greater of its ~~full-time equivalent~~ students are enrolled in active health programs, or (b) 70 percent of its active programs are in the health education field, provided that a majority of an institution's ~~full-time equivalent~~ students are enrolled in those programs.

A program is active if it has a current student enrollment and is seeking to enroll students.

- (3) All of its programs are career focused and designed to lead to employment or advancement in career field.
- (4) It is located in the United States or its territories.
- (5) It is properly licensed, chartered or approved to provide education beyond the secondary level under the laws and regulations of the state(s) or territories or other regulatory agencies in which it operates.
- (6) It must have been legally operating and continuously providing instruction as an institution for at least the prior two years.
- (7) It has enrollment in the program(s) to be included in the grant of accreditation to allow evaluation of student outcomes. (Does not apply to current-institutionally-accredited members).
- (8) It has at least one graduating class from at least one program(s) currently offered to determine the overall educational effectiveness of the program(s) of study offered.

CHAPTER III – GENERAL PROCEDURES (APPLIES TO INSTITUTIONS AND PROGRAMS)

SECTION A - Application, Evaluation, Approval Process, and Recordkeeping

Subsection 7 – Teach-out requirements

(i) Teach-out Plans

1. The Commission will direct an institution or program that it accredits to submit a teach-out plan for approval upon the occurrence of any of the following events:
 - a. ABHES is notified by the Secretary that the Secretary has initiated an emergency action against an institution, in accordance with section 487(c) (1) (G) of the HEA, or an action to limit, suspend, or terminate an institution participating in any Title IV, HEA program, in accordance with section 487(c) (1) (F) of the HEA, and that a teach-out plan is required.
 - b. ABHES acts to withdraw the accreditation of the institution or program.
 - c. ABHES is notified by the agency that accredits an institution with a program that is programmatically accredited by ABHES that the agency has acted to withdraw, terminate or suspend the accreditation of the institution.
 - d. The institution notifies ABHES that it intends to cease operations entirely or close a location that provides one hundred percent of at least one program.
 - e. A state licensing or authorizing agency notifies ABHES that the institution's or program's license or legal authorization to provide an educational program has been or will be revoked.
2. The Commission may direct an institution or program to provide a teach-out plan in response to:
 - a. A show cause directive;
 - b. Low annual student retention rate that does not meet ABHES guidelines;
 - c. Low annual pass rate on required credentialing and/or licensing examinations that does not meet ABHES guidelines;
 - d. Low annual graduate placement rate that does not meet ABHES guidelines; or,

Any circumstances in which ABHES concludes that a teach-out plan is appropriate.
3. A teach-out plan must be submitted to ABHES for approval with the required *Teach-out Approval Form*. The approval form can be found at www.abhes.org/forms.
4. The teach-out plan must be consistent with applicable standards and regulations and provide for the equitable treatment of students. This includes, but is not limited to, evidence that:

- a. The teach-out institution is accredited by an institutional accrediting agency recognized by the United States Department of Education.
 - b. The teach-out institution is stable, carries out its mission and meets all obligations to existing students.
 - c. The teach-out institution has the necessary experience, resources and support services to provide educational program(s) that are of acceptable quality and reasonably similar in content, structure and scheduling to those provided by the institution or program that may cease operations either entirely or at one of its locations. This includes graduates' access to the same credentialing exams, as applicable.
 - d. Students are provided access to the program and services without requiring them to move or travel substantial distances.
 - e. Students will be treated equitably with regard to any charges or refunds; and, if tuition has been paid in full, that students receive the instruction promised at no additional charge.
 - f. Students will be provided with written notification regarding their rights and opportunities for teach-out, transfer and refunds.
5. The plan may propose that the teach-out of students be accomplished by the institution or program that may cease operations, either entirely or at one of its locations, or by another institution(s), so long as the requirements listed above are met.
 6. If ABHES approves a teach-out plan that includes a program accredited by another recognized accrediting agency, ABHES will notify that accrediting agency of its approval.
 7. Once a school has requested and received teach-out Approval of the program(s), ABHES determines whether an accreditation visit is necessary.
 8. The institution or program may request an extension of accreditation up to one (1) year beyond its grant of accreditation, for the sole purpose of teaching out students. Extensions will be reviewed only if:
 - a. the institution or program has an approved teach out plan; and,
 - b. the institution has submitted a Campus Closure Form.

(ii.) Teach-Out Agreements

A teach out agreement is a legally binding contract between an institution or program that may terminate and another institution that provides for the education of students enrolled by the former. In its discretion, ABHES may direct an institution or program to provide a teach-out agreement as part of its submitted teach-out plan.

An institution that enters into a teach-out agreement with any other institution, either on its own or at the discretion or request of ABHES or any other agency or authority, must submit that teach-out agreement to ABHES for approval using the required *Teach-out Approval Form*. The approval form can be found at www.abhes.org/forms.

ABHES will approve the teach-out agreement only if the agreement is with an institution that is accredited by an institutional accrediting agency recognized by the United States Department of Education and only if the agreement provides for the equitable treatment of students by ensuring that each of the required elements of a teach-out plan listed above are met.

Subsection 10 – Maintaining accreditation

To remain in an accredited status with ABHES, institutions and programs must respond to Commission directives, including responses to visitation reports, payment of fees (see Appendix G - Fees) or visit expenses, and submission of documents, including the complete Annual Report, supporting documentation, and financial statements. Failure to respond to directives by deadline dates identified by the Commission will result in a late fee assessment and may result in a show-cause directive or withdrawal of accreditation.

Institutions accredited by ABHES must submit audited financial and other statements to the Commission within six months after the completion of their fiscal year or 30 days after an audit is released, whichever is earlier. Audited statements must be prepared according to Generally Accepted Accounting Principles (GAAP) on an accrual basis.

Annually the Commission reviews an institution's profitability and net worth in order to meet its financial capability. Minimally, an institution must submit an audited financial statement that evidences one or more of the following: a ratio of current assets to current liabilities that is at least 1:1 for the most recent operating year; a history of operating surpluses for the most recent two years; a positive net worth for its most recent operating year (i.e., total assets which exceed the institution's total liabilities).

The Commission will examine both parent and subsidiary/division/program financial statements for compliance. Even if subsidiary or department can prove compliance on its own, the Commission will defer to parent company financial statements in all cases including where entities cannot provide separate financial statements. ~~The Commission requires~~ a signed affidavit from the parent company to affirm that the program, department, and/or entity will be supported by that company is required ~~if it cannot demonstrate compliance on its own accord.~~

In addition, the Commission may require the submission of other financial information to clarify the financial status of an institution (e.g. a financial plan, financial reporting, response to a show cause, teach-out plan or any combination of these reports).

ABHES reviews key student achievement indicators set forth in the Annual Report of every accredited institution and program and the key fiscal indicators set forth in the annual financial statements of every accredited institution.

Failure to demonstrate at least 70 percent retention rate for each program, a 70 percent placement rate for each program, or a 70 percent pass rate on mandatory licensing and credentialing examinations using the formula provided by ABHES in the annual report, as well as meet the state mandated results for credentialing or licensure required for employment raises a question whether accreditation requirements are being met.

Failure to meet accreditation requirements will result, at a minimum, in the institution or program being required to demonstrate that it has effectively analyzed the situation and taken measures to correct the deficiency through creation of an action plan. Failure to demonstrate compliance with the key financial indicators set forth in above will require, at a minimum, that the institution respond evidencing that it will meet its obligations to students and that it has a fiscally responsible plan to come into compliance with the ABHES financial requirements within a certain date.

ABHES also reviews student population growth by program compared to the previous reporting year. Any increase in the population of any program greater than 50 percent from the prior year must be explained by means of an appendix to the annual report that addresses the impact of the growth on (1) availability of resources including class sizes, classrooms facilities, laboratories, faculty, student services, and clinical education experiences, (2) program retention, (3) graduate results on required licensing or credentialing, and (4) program placement in the subject field.

Any failure to meet the student achievement requirements or financial indicators, or to show an adverse impact on the institution's or program's ability to comply with accreditation standards due to extraordinary enrollment growth, may result in the institution or program being directed to show cause why the institution or program should not have its accreditation withdrawn.

SECTION B – Institutional Changes

Institutions and programs should be aware that review by ABHES may take several weeks; thus, timely notification is necessary so that changes are approved prior to implementation.

Subsection 1 – Changes requiring approval

The following changes must be submitted to ABHES for approval prior to implementation on the appropriate applications (www.abhes.org) for consideration by staff. The Commission may become involved in the consideration if necessary.

(* denotes a site visit required)

- i. *Change of location;
- ii. Change of name of controlling institution;
- iii. Addition of new program that does not represent a significant departure from the existing offering of educational programs or method of delivery (note: currently accredited institutional members must adhere to the requirements for initial programmatic eligibility when adding a surgical technology program, which includes the submission of the Application for Programmatic Accreditation);
- iv. Addition of courses for specific audiences seeking professional development rather than program completion. ~~-or programs not leading to an occupational objective, including Vocational English as a Second Language (VESL) programs.~~ These courses ~~or programs~~ may be excluded from the scope of an institution's grant of accreditation, with the following limitations:
 - a. All advertising and publications (e.g. catalog) referencing ABHES accreditation clearly state that such excluded programs or courses are not included within an institution's grant of accreditation.
 - b. Courses are not being combined with other excluded courses to circumvent accreditation requirements and/or those of other governmental bodies.ABHES reserves the right to deny approval of any submissions when the coursework has been determined as occupational or vocational.
- v. Addition of avocational or professional development courses taken by non-matriculated students who are not seeking academic credit. These courses will be excluded from the scope of an institution's grant of accreditation, with the following limitations:

a. All advertising and publications (e.g. catalog) referencing ABHES accreditation clearly state that such excluded programs or courses are not included within an institution's grant of accreditation.

b. Courses are not being combined with other excluded courses to circumvent accreditation requirements and/or those of other governmental bodies.

ABHES reserves the right to deny approval of any submissions when the coursework has been determined as occupational or vocational.

~~v~~.vi. *Change from non-main to main campus.

~~vi~~.vii. ABHES may require an onsite evaluation for programs which appear to have a significant impact on institutional operations, including mission; equipment; faculty; learning resources; facilities; and budget.

~~vii~~.viii. Business or activity conducted on the institution's campus, which is not included under the grant of accreditation. *Applies only to institutional accreditation.*

Subsection 4 – Additional requirement regarding specific changes

The following modifications in an institution's or program's academic offerings ~~require observing the following procedures for~~ must be reporteding to the Commission:

A. Revised Program Application

The Application for Minor Program Revision or Application for Substantive Program Revision are required for:

a. A revision of up to 25 percent of program content (~~in~~ total clock hours or courses) or in total lecture hours or in total lab hours or in total clinical hours requires submission of an Application for Minor Program Revision.

b. A modification ~~to~~ of 26 to 50 percent of program content (~~total~~ clock hours or courses) or in total lecture hours or in total lab hours or in total clinical hours) requires submission of an Application for Substantive Program Revision.

B. New Program Application

The Application for New Program Approval is required for:

- a. A modification from a currently approved program to a higher degree
- b. A modification of more than 50 percent of program content (total hours or courses)
- c. The addition of a new program, or reactivation of a discontinued program

C. Notification

Notification to ABHES is required for:

- a. A negative action, including probation, placed upon an institution or program by a recognized accrediting agency, state licensure body, or federal regulatory agency.

- b. The discontinuation of a program (defined as any program that has not been in operation for a continuous twelve-month period). Institutions and programs must submit notification when a program is discontinued. Notification must be submitted on the ABHES Notice of Discontinuation of Program and/or Delivery Method Form found at www.abhes.org.
- c. The discontinuation of previously approved delivery method, i.e. residential, blended or full distance education (defined as any delivery method that has not been in operation for a continuous twelve-month period). Notification must be submitted on the ABHES Notice of Discontinuation of Program and/or Delivery Method Form found at www.abhes.org.
- d. The hiring or appointment of a new On-site Administrator or designated representative (e.g., Campus President, Director, Program Director). Notification must be submitted on the ABHES Change of Leadership Form.

The Annual Report is not a means of notification and may not substitute for such notifications.

D. Addition or Expansion of Distance Education

ABHES defines distance education as a formal educational process to deliver instruction to students who are separated from the instructor and support regular and substantive interaction between the instructor and students, and among students. Correspondence education is not within ABHES' scope of recognition and therefore is not eligible for accreditation by ABHES.

The following applications must be submitted and approved, prior to the implementation or expansion of distance education, as indicated:

1. Application for Distance Education Delivery
 - a. The initial addition of distance education to a currently accredited institution or an institution holding a grant of programmatic accreditation.
 - b. A significant change to the delivery modality or curriculum provider previously approved by ABHES. A change in the Learning Management System need not be reported unless the change impacts the curriculum.
2. Application for Expansion of Distance Education Delivery:
 - a. An inclusion of laboratory-based courses delivered by distance education to a program currently approved for distance education delivery.
 - b. The expansion of an approved blended program to full distance education.
 - c. The expansion of distance education delivery courses to an existing program not currently approved for distance education.
3. Application for Shared Distance Education Courses

The expansion of distance education delivery to an existing program(s), using courses from a currently approved distance education program.

4. Addendum to New and Revised Program Applications

The addendum must be submitted for the expansion of distance education as part of a new or revised program application. If the program is the institution's first full distance education program or laboratory-based courses delivered by distance education, an Application for Distance Education Delivery or Application for Expansion of Distance Education Delivery is required.

The addendum is included as part of the Application for New Program Approval, Application for Substantive Program Revision and Application for Minor Program Revision. (ABHES reserves the right to request additional information or application, as necessary, to determine compliance with accreditation requirements regarding distance education delivery.)

For those institutions or programs applying for the first time to offer program(s) by distance education (not currently approved by ABHES to offer programs by distance delivery), an on-site verification visit will be conducted by a distance education specialist within six (6) months of beginning the approved distance education instruction. The verification visit is used to ensure that the institution has the necessary resources in place to deliver distance education offerings effectively. A significant expansion to an institution's distance education offerings may require a remote or on-ground site visit by a distance education and program specialist.

It is the responsibility of an institution to (1) notify local, state, and federal entities of program modifications, as necessary, and, (2) obtain any and all state authorization to offer distance education, as applicable, prior to applying for Commission approval. Programmatic members will provide evidence of their institutional accreditor's approval for the delivery method. In cases where accrediting standards and state regulations differ, the more stringent of these apply. New or expanded distance education courses and programs may not be implemented or advertised until ABHES approval has been granted.

SECTION C - Commission Actions

Subsection 4 – Program specific warning

The Commission may issue a program-specific warning if it has substantive questions and concerns regarding the institution's compliance with ABHES standards and procedures relative to specific program(s) offered by the institution.

Being placed on a program-specific warning will require the institution to demonstrate why approval of the specific program(s) should not be withdrawn.

The Commission will review and evaluate the institution's response to the notice of program-specific warning and make determination that may include: (a) vacating the program-specific warning status; (b) continuing and/or expanding the program-specific warning status; (c) limiting program enrollment; (d) suspending program approval from one or more programs which prohibits the institution from enrolling or starting new students in the program(s) until the institution meets the terms and conditions established by the Commission; and/or (e) withdrawing the program approval from one or more programs.

An institution may not submit a new program application for substantially the same program, directed by the Commission to be taught out due to its outcomes, for at least twelve (12) months following the decision by the Commission.

CHAPTER IV – EVALUATION STANDARDS APPLICABLE TO INSTITUTIONALLY – ACCREDITED MEMBERS

SECTION D - Compliance with Government Requirements

- IV.D.2. An institution that participates in a Federal student aid program is required to self-report to ABHES.*
- a. ~~Inform ABHES of~~ its status as a participant in the Federal program and immediately informs ABHES of any change in that status.
 - b. ~~Report to ABHES~~ Its annually ~~its Federal~~ federal student loan default rates as defined by the United States Department of Education, ~~identifies to ABHES and for~~ any rates that are defined by the Department as too high, ~~it must also submit and develops and submits~~ a corrective action plan to address such rates.
 - c. ~~Inform ABHES promptly of a~~ Any audit, program review or any other inquiry by such Federal agencies as the United States Department of Education or Office of Investigative General regarding the institution's participation in Federal financial aid programs and promptly updates ABHES regarding all communications with the Department until resolution or conclusion.
 - d. ~~Inform ABHES promptly of a~~ Any findings or actions by the Department of Education relative to the institution's participation in the Title IV program.

Failure of an institution to maintain compliance with its requirements under the Title IV program will be evaluated by ABHES to determine whether ~~the noncompliance~~ it raises a question of potential noncompliance with accreditation requirements. ABHES will direct the institution to provide whatever evidence it deems necessary to resolve the question and may conduct an on-site visitation. Failure to demonstrate compliance with all accreditation requirements may result in a directive to show cause why accreditation should not be withdrawn.

SECTION G – Programs

IV.G.2. An institution that participates in Federal Financial Aid programs complies with Federal requirements for clock-to-credit hour conversions.

ABHES will ~~affirmatively~~ evaluate whether the institution is meeting the Federal Financial Aid requirements. If the Commission finds systemic or significant non-compliance regarding one or more programs at the institution, ABHES will promptly notify the U.S. Secretary of Education.

CHAPTER V – EVALUATION STANDARDS APPLICABLE TO ALL EDUCATIONAL PROGRAMS

SECTION D – Student Assessment

V.D.1. An institution adheres to its admission policies and enrolls only students who can reasonably be expected to benefit from the instruction.

An admissions process exists to screen and evaluate each applicant's credentials before an applicant is notified of acceptance or rejection. A personal interview may be arranged at the discretion of the institution.

Admission requirements clearly state the basis for admission, including testing, advanced standing, experiential learning requirements, and transfer of credit. Remedial courses and refresher courses are not considered for credit. When accepting students, reasonable assurances are made that applicant qualifications and background are compatible with institutional and curricular objectives to ensure the likelihood of student success.

Applicants are beyond the age of compulsory institution attendance in the state in which the institution is located and can be reasonably expected to benefit from the training offered by the institution. Institutions that accept non-high school graduates (ability-to-benefit students) into their programs must meet the additional requirements of Appendix A, Enrollment of Ability-to-Benefit (“ATB”) Students, with the exception of any program that is 300 clock hours or less.

The evidence of high school graduation or its equivalent is supplied to an institution within 30 days after the student's first class or lesson begins, and as permissible may be a signed attestation of graduation. The evidence or signed attestation of graduation must include the name of the high school attended, city, state, graduation year ~~and that the high school or program was approved by the applicable governing or state authority~~. The institution has the responsibility of having a policy at the campus level to verify the high school or program was approved by the applicable governing or state authority and accrediting body (recognized by the U.S. Secretary of Education or by the Council on Higher Education Accreditation), as applicable. The information relative to ATB student admission is submitted prior to enrollment.

SECTION I – Program Effectiveness

V.I.1.e. A program demonstrates that its required constituencies participate in completing program surveys.

A program must ~~evidence that is has a systematic process for regularly surveyingsurvey~~ the following constituencies: students, clinical extern affiliates, graduates, and employers. The purpose of the surveys is to collect data regarding a perception of a program’s strengths and weaknesses. Results of the constituency surveys are shared with the administration, faculty, and advisory board. Accordingly, a program must document that at a minimum the survey data included in its effectiveness assessment include the following:

Student:

Student surveys provide insight regarding student satisfaction relative to all aspects of the program, ~~such as including the following:~~

- a. ~~i~~Instruction;
- b. ~~educational~~ Educational resources; ~~s~~
- c. Student services ~~and their~~
- d. ~~clinical~~ Clinical experience.

~~The surveys identify strengths and weaknesses from a student's perspective.~~

Clinical extern affiliate:

~~Clinical extern affiliate~~Externship site surveys provide insight regarding affiliates' satisfaction relative to program training, including the include following:

- ~~a. a~~A critique of students' knowledge and skills upon completion of their in-school training and reflect how well the students are trained to perform their required tasks.
- ~~b. They include a~~An assessment of the strengths and weaknesses, and proposed changes, in the instructional activities for currently enrolled students.
- ~~a.c. The sites also e~~Evaluate the responsiveness and support provided by the designated school representative, who ~~visited the site and~~ remained in contact with the site throughout the duration of the students' externship.

Graduate:

~~Graduate surveys provide insight regarding graduates' satisfaction with the following:~~

- ~~a. Preparedness for entry into the program field~~
- ~~b. Training and education~~
- ~~a.c. Career services~~

~~A program has a systematic plan for regularly surveying graduates, which determines if: (i) graduates have been informed of applicable credentialing requirements (ii) the classroom, laboratory, and clinical experiences prepared students for employment and (iii) graduates are satisfied with their educational training.~~

Employer:

~~A program has a systematic plan for regularly surveying employers, which determines if: (i) information on whether the skill level of the employee is adequate, and (ii) if the employer~~

~~Employer surveys provide insight regarding employers' satisfaction with the following:~~

- ~~a. Skill level of the employee~~
- ~~a.b. would~~Would hire another graduate from the program-

The survey participation rate is determined by using the ABHES required method of calculation, for the reporting period July 1 through June 30, as follows:

Survey Participation Rate = SP / NS

SP = Survey Participation (those who actually filled out the survey)

NS = Number Surveyed (total number of surveys sent out)

V.I.2. *A program has an established documented plan for assessing its effectiveness annually as defined by specific outcomes.*

While each program must represent each element required below, the plan may be a comprehensive one which collectively represents all programs within the institution or may be individual plans for each distinct program. A plan should contain a cover page and identify the program objectives, which must be consistent with all other documents describing the program.

The PEP specifies a process and a timetable for the annual assessment of program effectiveness, and identifies the process for how data is collected, timetable for data collection, and parties responsible for data collection.

The Program Effectiveness Plan clearly describes the following elements:

~~a.~~ student population

~~A description of the characteristics of the student population is included in the Plan.~~

~~b.~~ program objectives

~~Programs objectives are consistent with the field of study and the credential offered and include as an objective the comprehensive preparation of program graduates for work in the career field.~~

~~ea.~~ program retention rate

The retention rate for the previous two years and the current year is identified which is determined by using the ABHES required method of calculation for the reporting period July 1 through June 30. Based upon these rates, the institution must conduct an analysis of the data to identify any trends, including those related to the student population (characteristics/demographics) and other applicable factors; and based upon the analysis, then identify its retention rate goal for the next reporting year and the factors considered in determining such a goal and the activities undertaken to meet the goal.

~~eb.~~ credentialing examination participation rate

The credentialing examination participation rate for the previous two years and the current year is identified which is determined by using the ABHES required method of calculation for the reporting period July 1 through June 30. Based upon these rates, the institution must conduct an analysis of the data to identify any trends, including those related to the student population (characteristics/demographics) and other applicable factors; and based upon the analysis, then identify its credentialing participation rate goal for the next reporting year and the factors considered in determining such a goal and the activities undertaken to meet the goal.

~~ec.~~ credentialing examination pass rate

The credentialing examination pass rate for the previous two years and the current year is identified which is determined by using the ABHES required method of calculation for the reporting period July 1 through June 30. Based upon these rates, the institution must conduct an analysis of the data to identify any trends, including those related to the student population (characteristics/demographics) and other applicable factors; and based upon the analysis, then identify its credentialing pass rate goal for the next reporting year and the factors considered in determining such a goal and the activities undertaken to meet the goal.

~~ed.~~ job placement rate

The job placement rate for the previous two years and the current year is identified which is determined by using the ABHES required method of calculation for the reporting period July 1 through June 30. Based upon these rates, the institution must conduct an analysis of the data to identify any trends, including those related to the student population (characteristics/demographics) and other applicable factors; and based

~~upon the analysis, then~~ identify its placement rate goal for the next reporting year and the factors considered in determining such a goal and the activities undertaken to meet the goal.

ge. satisfaction surveys of students, clinical extern affiliates, graduates and employers

At a minimum, an annual review of results of the surveys is conducted, and results are shared with administration, faculty and advisory boards. Decisions and action plans are based upon review of the surveys, and any changes made are documented (e.g., meeting minutes, memoranda).

~~The institution establishes: 1) a goal for the percent of surveys returned and 2) a goal for the level of satisfaction desired.~~

f. delivery method assessment

~~h.~~ If program is offered in a blended or full distance education format, the PEP includes an assessment of the effectiveness of the instructional delivery method.

g. curriculum assessment

~~An assessment of the curriculum that uses tools which might include examinations, advisory board input, competency and skill outcomes, faculty review of resource materials, and graduate and employer surveys. Results of the assessment are not required to be reported to ABHES, but are considered in annual curriculum revision by such parties as the program supervisor, faculty, and the advisory board. Changes adopted are included in the program effectiveness plan.~~

~~V.I.3. — A program has a process for assessing effectiveness annually.~~

~~The Program Effectiveness Plan specifies a process and a timetable for this annual assessment of program effectiveness.~~

~~The plan must:~~

~~i. Identify the process for how data were collected, timetable for data collection, and parties responsible for data collection.~~

~~ii. Include an assessment of the curriculum that uses tools which might include examinations, advisory board input, competency and skill outcomes, faculty review of resource materials, and graduate and employer surveys. Results of the assessment are not required to be reported to ABHES, but are considered in annual curriculum revision by such parties as the program supervisor, faculty, and the advisory board. Changes adopted are included in the program effectiveness plan.~~

CHAPTER VI

DEGREE PROGRAM STANDARDS

The Accrediting Bureau of Health Education Schools is recognized by the U.S. Secretary of Education to accredit occupational science, applied science, and academic associate, baccalaureate, and master's degrees. ~~All These~~ degree programs must comply with all policies, procedures, and standards described throughout the *Accreditation Manual*, including the general evaluation standards (Chapter IV), applicable program standards (Chapters VI-VIII), and appendices. This chapter contains additional specific requirements for degree programs.

Degree programs represent a significant additional educational commitment by the institution. The purpose of this chapter is to ensure that institutions offering degree programs have the ability to meet this educational commitment and that they only award degrees to eligible students who, within the required time frame, complete program requirements.

Degree programs are normally measured in credit hours (quarter or semester) and accrediting standards pertaining to credits hours apply.

SECTION B – Academic Associate Degrees

Academic associate degrees ~~programs~~ may include Associate of ~~Science Art, and~~ Associate of ~~Science Arts, and degree programs~~ or any other academic associate degrees ~~program~~ that meets the requirements of this section.

SECTION C – Baccalaureate Degrees

Baccalaureate degrees may include Bachelor of Science, Bachelor of Arts, and any other bachelor degrees that meet the requirements of this section.

VI.C.6.a. The program meets the required minimum level of credit hours (or its recognized equivalent) in total content and hours of occupational and general education courses:

- a. 120 semester hours, 180 quarter hours, or their equivalent normally earned over a period of 8 semesters, 12 quarters, or their equivalent. Transfer of credit for work at other institutions may be granted. Credit may be awarded for life experiences through prior learning assessment (PLA), such as DANTES, CLEP or ACE recommendations.
- b. 60 semester hours, 90 quarter hours, or their equivalent in the area of concentration for which the degree is awarded, not to include subject matter considered general education courses; and
- c. 36 semester hours, 54 quarter hours, or its recognized clock hour equivalent in general education courses. A minimum of 6 semester hours or 9 quarter hours of general education courses must be upper level courses.

See Chapter IV.G.1. for conversion methodology in calculating and awarding academic credit.

The curriculum catalog identifies the courses that satisfy the concentration and general education requirements ~~and those that are upper division courses, and it must provide an explanation of the course numbering system.~~ The curriculum identifies catalog states courses for a bachelor's baccalaureate degree

program using a distinct course numbering and sequencing system, which must be clearly outlined in the catalog. Students must progress from lower level courses to upper level courses to evidence academic rigor.

The catalog states the expectations for all four years of the baccalaureate degree curriculum and complies with Appendix C, Catalogs. If the institution offers only the last two years of the baccalaureate degree program, the catalog and all advertising materials must clearly describe the requirements for admission, including requirements for the completion of necessary prerequisite courses and general education courses to ensure that the student will complete all of the requirements for the baccalaureate degree upon graduation. Institutions offering baccalaureate degrees, including completion programs, must clearly describe in the catalog and program materials the requirements for admission, completion of prerequisites, and general education courses in the catalog and program materials.

~~General education and academic subject offerings are distinguished from the professional or vocational offerings and place emphasis on principles and theory and not on practical applications associated with a particular occupation or profession. General education courses give balance to the total program. Expectations for general education are outlined in the Glossary section.~~

VI.C.7. *Students admitted to baccalaureate degree programs possess a regular high school diploma, ~~GED~~ or the equivalent recognized by the state where the institution is authorized. ~~Proof of the high school diploma or its equivalent is received prior to the end of the first semester or quarter of attendance.~~*

Proof of the high school diploma or its equivalent must be received prior to the first day of attendance. Students who do not have a regular high school diploma or its equivalent, but demonstrate an ability to benefit from the degree program, may be admitted to a certificate or diploma program first and then transfer to the degree program upon receiving a high school diploma or its equivalent.

SECTION D -- Master's Degrees

Schools are ineligible to receive Title IV funding for the master's degree level program(s) until such time as ABHES is approved for the expansion of scope by the Department of Education.

CHAPTER VII – EVALUATION STANDARDS FOR SURGICAL TECHNOLOGY

SECTION A – Curriculum, Competencies, External and/or Internal Clinical Experiences

ST.A.3. The program administers to each cohort of students ~~an~~the Certified Surgical Technologists (CST) examination, after completion of curricula content and prior to graduation.

The exam serves as the program's quality indicator by producing relevant, first time attempt score data which assess curricular quality and overall achievement in the program. Programs must demonstrate 100% examination participation and a 70% pass rate.

The exam program is: proctored consistent with the credentialing agency's requirements.

- ~~i. in the field of surgical technology and accredited by a nationally recognized certification accrediting body; ; and,~~
- ~~ii. proctored consistent with the credentialing agency's requirements.~~

SECTION C – Laboratory Facilities and Resources

ST.C.1.a. The institution's laboratory facilities include:

A dedicated space to support the role of a surgical technologist, ~~in the scrub capacity and that meets the requirements of the current Core Curriculum.~~

CHAPTER VIII– DMS EVALUATION STANDARDS FOR DIAGNOSTIC MEDICAL SONOGRAPHY

The Accrediting Bureau of Health Education Schools does not accredit programmatically a Diagnostic Medical Sonography program, but as an institutional accrediting agency, includes this program within an institution's grant of accreditation. The program must comply with the accreditation standards described throughout the Accreditation Manual (~~Chapters IV–V~~), including Chapter V for all programs and Chapter VI for degree-granting programs, and all applicable appendices. This chapter contains additional specific requirements for a Diagnostic Medical Sonography program.

~~Accordingly, every Self-Evaluation Report (SER), institutional site visit, and Site Visitation Report evaluates each program individually against all ABHES accreditation standards. A program specialist is used to evaluate each individual program offered by an institution. Individual programs that do not demonstrate compliance with the standards, policies, and procedures set forth in the Accreditation Manual may be excluded from the institution's grant of accreditation or may cause the institution's accreditation to face adverse action.~~

For purposes of this chapter, a Diagnostic Medical Sonography program includes any additional programs identified by any other name or designation that is reasonably understood by professionals in the field, students, or the public to have the same meaning. This chapter is equally applicable to any educational program offered by the institution that intends to prepare graduates for employment based on the knowledge and skills set forth in this chapter.

DESCRIPTION OF THE PROFESSION

A diagnostic medical sonographer is a healthcare professional who utilizes medical ultrasound in various medical settings to gather sonographic data to aid in the diagnosis of a variety of medical conditions and diseases. Specialties for the profession include general (defined as abdominal, obstetric, gynecological, and superficial structures), cardiac, and vascular sonography, muscular skeletal, pediatrics, interventional, breast, as well as various other subspecialties. The diagnostic medical sonographer may work under general or direct supervision as defined by state law.

The diagnostic medical sonographer identifies, records and processes anatomical and pathophysiological data for diagnostic screening and for integration with medical history. The findings are properly communicated to a licensed results interpreting physician-practitioner for interpretation. In addition, the diagnostic medical sonographer provides education to patients in matters that involve medical ultrasound procedures, and promotes basic principles of good health.

Diagnostic medical sonographers are employed in healthcare delivery inpatient/outpatient settings, including but not limited to: general and specialized hospitals, imaging centers, mobile clinics, surgical centers, vascular centers, obstetric gynecological offices, physician's offices, and veterinary centers.

CREDENTIALING

Credentialing in diagnostic medical sonography may be required by employers, and is encouraged for graduates of ABHES-accredited programs. Programs are expected to prepare students in necessary aspects of the curriculum included in the credentialing examinations available from a nationally recognized and accredited certifying agency in the field of study.

SECTION A – Curriculum, Competencies, and Clinical Experience

DMS.A.1. *The depth and breadth of the program's curriculum enables graduates to acquire the knowledge, competencies, and skills in cognitive, psychomotor, and affective domains and to perform ultrasound procedures as an entry-level professional sonographer in the field of diagnostic medical sonography.*

Competencies required for successful completion of the program are delineated, and the curriculum ensures achievement of these entry-level competencies through coursework, skills assessments and clinical experiences. Students are advised, prior to enrollment and throughout the program, of any credentialing requirements necessary to achieve and/or maintain employment in the field. Focus is placed on increasing the marketability and employability of graduates through credentialing.

To provide for student attainment of entry-level competence, the curriculum includes, but is not limited to, the following:

Curricular Components

Courses are defined as either core or non-core courses. Core ~~educational~~ courses are categorized as Applied Ultrasound Sciences and Learning Concentrations. Non-core courses are categorized as General Education and Curricular Requisites. General Education requirements (communication skills which may be met with courses in college-level ~~e~~English ~~c~~Composition or ~~s~~Speech, or college-level mathematics, human anatomy and physiology, and general physics) are met before core educational courses are presented. Curricular Requisites (career development, medical terminology, medical law and ethics, basic patient care, and pathophysiology), are presented in a logical sequence within the curriculum. The curriculum follows a logical and progressive order and sequence.

~~A program resulting in a certificate or diploma is typically 18 months in length. An academic associate, applied associate, or occupational associate degree program is typically two academic years in length. Programs offering multiple concentrations typically exceed single concentration lengths by approximately six months; however, each program will be evaluated for its effectiveness in achieving the program objectives and outcomes.~~

~~Courses include the following components:~~

1. General Education

(must be met prior to Core Curriculum Courses)

A. Communication Skills

Graduates will be able to demonstrate knowledge and understanding of:

- a. Obtain patient history ~~patient interaction and education, including history taking, pre and post procedure information, principles and practices of good health, and diagnostic testing protocols~~
- b. Discuss pre- and post-procedure information
- c. Explains diagnostic testing protocols
- ~~b. Technical writing~~
- d. Preparation and presentation technical reports and communicate clinical findings to licensed practitioner
- ~~d. Physician interaction for communication (oral and written) of clinical findings~~
- e. Demonstrate basic computer skills ~~Basic computer usage~~
- f. Practice effective Workplace communication in the workplace

- g. Demonstrate proper telephone etiquette ~~in a medical environment~~
- h. Demonstrate an understanding of diverse populations (e.g., culture, religion, race, age, gender, sexual orientation, disability or patients with special needs, and economic status) and the ways that diversity influences language and communication
- i. Demonstrate an understanding of the core competencies for Interprofessional Collaborative Practice i.e. values/ethics; roles/responsibilities; interprofessional communication; teamwork.

B. Mathematics

Graduates ~~will be able to demonstrate knowledge and understanding of:~~

- a. Demonstrate a proficient understanding of the metric system and measurements
- b. Perform arithmetic and algebraic functions and processes
- ~~b. Conversion through the use of dimensional analysis~~
- c. Understand the use of fractions, decimals, percentages, and interconversions
- d. Apply knowledge of logarithms and exponents
- ~~e. Manipulation of data and information to achieve desired results~~
- f. ~~Understand statistical research studies and review relevant publications~~

C. Physics

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

- a. Understand principles of general physics ~~and acoustic physics~~ (e.g., motion, work, and heat)
- ~~b. Principles of general physics (e.g., motion, work, and heat)~~
- b. Understand principles of acoustic physics ~~and light waves~~ (e.g., sound production and propagation and interactions of sound with matter)
- ~~d. Sound production and propagation~~
- ~~e. Interactions of sound with matter~~
- c. Apply principles of Doppler ~~and Duplex~~ applications in diagnostic medical sonography
- ~~d. Identify Doppler and Duplex instruments, components, and technologies~~
- ~~g. Application of physics principles to professional practice~~
- ~~ed. Understand the components and functions of the ultrasound system~~
- ~~fe. Select and utilize appropriate~~ ultrasound transducers
- ~~i. Instruments of ultrasound~~
- ~~j. Components of ultrasound system~~
- ~~gk. Understand the principles of~~ hemodynamics
- ~~l. Doppler instruments, components, and technologies utilized in sonography~~
- ~~hm. Demonstrate knowledge of~~ bio effects of ultrasound, quality assurance, and clinical safety
- ~~n. Quality assurance and clinical safety~~
- ~~o. Technologies in diagnostic ultrasound~~

D. Anatomy and Physiology

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

- a. ~~the anatomy, physiology and pathophysiology components of the following major body systems:~~
Understand the following major body systems:
- ~~a. 1) Respiratory~~
- ~~2) b. Cardiovascular system~~
- ~~c. 3) Nervous system~~
- ~~d. 4) Digestive system~~
- ~~e. 5) Muscular Skeletal system~~
- f. ~~6) Reproductive systems,~~ including embryology and fetal development

- ~~g. 7) Urinary system~~
- ~~h. 8) Endocrine system~~
- ~~i. 9) Reticuloendothelial system~~
- ~~j. 10) Skin and Integumentary system~~

~~b. The primary physiological function of the human body through practical and didactic assessment.~~

2. Curricular Requisites

A. Medical Terminology

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

- a. Explain structure of medical terms (roots, prefixes, and suffixes)
- b. Demonstrate an understanding and use of abbreviations and symbols ~~used~~ in health care
- c. Apply procedural terminology specific to the field of diagnostic medical sonography

B. Career and Professional Development

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

- a. Understand process of certification, credentialing, and licensure relevant to each state, as applicable
- b. Differentiate career pathways within the field of diagnostic medical sonography
- ~~e. Employment process: Essentials for employment~~
- ~~dc. Demonstrate effective resume writing, interviewing skills, and conduct employment searches~~
- e.d. Demonstrate professionalism
- f. Professional certifications and credentialing
- ~~g-e. Identify continuing education requirements and the benefits of professional organization memberships~~
- ~~h. Professional organizations and memberships~~

C. Medical Law and Ethics

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

- a. Apply ethical decision-making
- b. Understand pertinent regulations legal principles and terminology applicable to the profession
- c. Maintain patient confidentiality and privacy
- d. Demonstrate an understanding of HIPAA compliance
- e. Understand patient Bill of Rights
- f. Follow advanced directives
- g. Maintain professional codes of conduct and
- ~~h. Professional scope of practice~~

D. Basic Patient Care

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

- a. Demonstrate an understanding of Sonographer – Patient interaction (based on age, needs and conditions)
- b. Practice patient safety ~~practices~~
- c. Apply strategies for dealing with difficult patients, family members, and situations
- ~~e-d. Offer~~ principles of emotional and psychological support
- ~~d-e. Maintain~~ infection control and universal precautions
- f. Manage emergency situations and including biological hazards procedures in accordance with facility protocol
- g. Demonstrate awareness of physical environment and setting

- ~~g-h. Perform Healthcare Provider CPR and first aid~~
- ~~h-i. Demonstrate skills for patient transfer, transportation, and proper positioning, as applicable by facility or state regulation~~
- ~~i. Diagnostic testing protocols~~
- ~~j. Application of critical thinking skills~~
- ~~k. Patient positioning~~
- ~~l. Legal/ethical issues of patient care~~
- ~~m. Interaction with other health care providers~~

E. Sonographer Safety

Graduates demonstrate knowledge and understanding of will be able to:

- ~~a. Apply personal protective equipment requirements~~
- ~~b. Maintain principles of ergonomics~~
- ~~b. Physical stress factors~~
- ~~c. Recognize factors that relate to physical and emotional stress and injuries Repetitive stress injuries~~
- ~~d. Emotional and psychological safety~~
- ~~e. Workplace stress~~
- ~~f. Environmental concerns~~
- ~~dg. Maintain equipment safety~~

A. Pathology

Graduates demonstrate knowledge and understanding of will be able to:

- ~~a. Cell injury and death

 - ~~1) Pathogenesis of cell injury~~
 - ~~2) Etiology of cell injury~~
 - ~~3) Types of cell injury or types of necrosis~~~~
- ~~b. Cell and tissue protection, repair, and healing

 - ~~1) Healing process~~
 - ~~2) Complications of healing~~~~
- ~~c. Trimester Gravid Pelvis: Maternal and fetal assessment

 - ~~1) Uterus: location, size, and vascular changes~~
 - ~~2) Ovaries: locations, size, and associated changes of early pregnancy~~
 - ~~3) Fluid collections associate with early pregnancy~~
 - ~~4) Amniotic fluid~~~~

3. Applied Ultrasound Sciences

~~Applied ultrasound science courses prepare the student for sonographic clinical experiences. Students demonstrate competence in performance of the procedures that will be performed in a clinical setting, including ultrasound equipment function and maintenance.~~

A. Sonography Instrumentation

Graduates demonstrate knowledge and understanding of will be able to:

- ~~a. Demonstrate the use of ultrasound equipment and its proper function~~
- ~~b. Select appropriate transducer for specific applications and selection~~
- ~~c. Scanner controls and adjustment mechanisms~~
- ~~d. Receiver functions~~
- ~~e. Imaging modes~~

B. Sonography Modes

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

f. a. Demonstrate image optimization techniques including:

- 1) 2D
- 2) Color flow
- 3) Spectral and Power Doppler;
- 4) Duplex imaging
- 5) M-mode
- 6) Harmonic imaging

b. Demonstrate image optimization techniques that may include:

- 1) 3D and 4D
- 2) Strain imaging
- 3) Elastography
- 4) Biopsy mode

C. Scanning Techniques and Examination Procedures

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

i. a. Apply scanning techniques such as:

- 1) Scanning methods and planes
- 2) Purpose and function of various scanning techniques, and their appropriate selection
- 3) Ergonomics, including supports, tools, devices, and adjustments

j. b. Demonstrate knowledge of examination procedures:

- 1) Patient name and information
- 2) Type of examination (pre-sets)
- 3) Transducer selection

D. Technical Image Production

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

e. a. Use system scanner controls to optimize image production and adjustment mechanisms

k. b. ~~Adjustments to~~ 2-D gray scale and M-mode controls:

- 1) Power
- 2) Overall Gain
- 3) TGC
- 4) Depth
- 5) Focus
- 6) Frequency
- 7) Dynamic range
- 8) Reject

l. c. ~~Adjustments to M-mode,~~ color flow Doppler, ~~and~~ spectral Doppler, and power Doppler:

- 1) Angle correction
- 2) Color box size and direction
- 3) Scale
- 4) Baseline position
- 5) Wall filter
- 6) Persistence
- 7) Color Mapping
- 8) Gate Placement and size

9) Aliasing

E. Measurements and Calculations

Graduates ~~demonstrate knowledge and understanding of~~ will be able to

~~m. a. P~~perform ultrasound measurements and calculations for :

~~a. 1)~~ Distance

~~b. 2)~~ Area

~~c. 3)~~ Circumference

~~d. 4)~~ Volume

~~e. 5)~~ Weight

~~f. 6)~~ Gestational age

~~g. 5) 7)~~ Spectral measurements

~~h. 6) 8)~~ Specific protocol and examination ~~measurements and calculations~~

F. Examination Documentation

Graduates ~~demonstrate knowledge and understanding of~~ will be able to ~~will be able to:~~

~~a. P~~produce the following image documentation:

~~a. 1)~~ Photograph

~~b. 2)~~ Radiographic film

~~c. 3)~~ Video

~~d. 4)~~ Digital archiving

G. Quality Assurance and System Maintenance

Graduates ~~demonstrate knowledge and understanding of~~ will be able to:

~~h. a.~~ Ensure and implement quality assurance by maintaining:

1) ~~Bio-effects and Safety~~; and ALARA principle

2) Resolution

3) Displays

4) ~~Storage and communication~~

4) Phantom testing

5) Storage and communication

—b. Understand the significance of Bio effects

H. Imaging Limitations

Graduates ~~demonstrate knowledge and understanding of~~ will be able to ~~will be able to:~~

~~e. a. I~~identify limitations ~~to~~ of imaging related to each learning concentration, as applicable:

1) Equipment ~~related~~ limitations: artifacts, capabilities

2) Patient ~~related~~ limitations: ~~size~~-habitus, current health status, body position, accessibility

3) Operator ~~related~~ limitations: experience, training

4) Imaging artifacts

5) Biological effects

6) Acoustical artifacts

4. Learning Concentrations

A. General Sonographic Concentration

~~a. Graduates from the general concentration must demonstrate the ability to perform ultrasound examinations of the abdomen, gravid and non-gravid pelvis, superficial structures and non-cardiac chest in accordance with protocol guidelines established by national professional and regulatory organizations using real-time equipment and applying concepts of ultrasound physics, including Doppler technology to produce optimal images.~~

a. Graduates ~~demonstrate knowledge and understanding of~~ will be able to recognize and identify the normal sonographic appearance, ~~including~~ variants and ~~normal Doppler~~ findings in the abdomen and small parts: ~~following structures:~~

- 1) Liver
- 2) Gallbladder and biliary ductal system
- 3) Pancreas
- 4) Kidneys and the urinary tract, including the bladder
- 5) Adrenal glands
- 6) Spleen
- 7) Lymph nodes
- 8) Abdominal vasculature
- 9) Peritoneal cavities and retroperitoneal spaces
- 10) Gastrointestinal tract, including the appendix
- 11) Non-cardiac chest, including the pleural cavity
- 12) Neck
- 13) Thyroid gland
- 14) Scrotal sac, including testes, epididymis, spermatic cord, prostate and seminal vesicle
- ~~15) Prostate~~
- ~~16) Seminal vesicles~~
- ~~17) Abdominal wall~~
- ~~18) Breast~~
- ~~19) Extremity soft tissue~~
- ~~20) Superficial and subcutaneous tissue~~
- ~~21) Musculoskeletal structures~~

b. Graduates ~~demonstrate knowledge and understanding of~~ will be able to recognize and identify the normal sonographic appearance, ~~including~~ variants and ~~normal Doppler~~ findings in the reproductive system and female pelvis: ~~following structures:~~

~~d. b. Graduates must recognize and identify the normal sonographic appearance, including anatomical variants and normal Doppler findings of the structures in the female pelvis.~~

~~Reproductive and Female Pelvis~~

~~1) Areas for evaluation:~~

- ~~a) 1) Reproductive System~~
 - ~~i. (a) Uterus~~
 - ~~ii. (b) Vagina~~
 - ~~iii. (c) Ovaries~~
 - ~~iv. (d) Adnexa~~
- ~~b) 2) Pelvic musculature~~
- ~~c) 3) Peritoneal spaces~~
- ~~d) 4) Pelvic vasculature~~

e. c. Graduates ~~demonstrate knowledge and understanding of~~ will be able to recognize and identify the normal sonographic appearance, ~~including~~ variants and ~~normal Doppler~~ findings in the maternal and fetal structures during the first, second, and third trimesters of gestation, including:

- 1) Gravid uterus, cervix, vagina, ovaries and cul-de-sac, ~~maternal kidneys and bladder~~
- 2) Embryological structures, including the gestational sac, yolk sac, embryo
- 3) Fetal head and face, brain, heart, lungs, ~~abdomen~~, stomach, diaphragm, spine, kidneys, bladder,

reproductive organs and extremities

4) Umbilical cord and insertion

5) Fetal abdominal wall and cavities

6) Pertinent assessment and measurement of fetal structures including:

a), including gestational sac

b), yolk sac,

c) fetal presentation

d) fetal heart rate,

e) placental location and grading,

f) biophysical profile scoring

7) Biometric measurements, including:

a) biparietal diameter,

b) head circumference,

c) cephalic index,

d) orbital,

e) lateral ventricles,

f) cisterna magna,

-g) nuchal fold,

h) cerebellar diameter

i) thoracic circumference,

j) abdominal circumference,

k) femur length,

and l) humerus length.

~~a) Apply the appropriate scanning protocol, techniques, and measurements in correlation with the following clinical information:~~

~~i. History and physical examination~~

~~ii. Other imaging and laboratory findings~~

~~iii. Primary Diagnosis~~

~~iv. Differential Diagnosis~~

~~b) Graduates must recognize and identify the sonographic appearance and Doppler findings of pathologies in the following areas and conditions:~~

~~i. Placenta~~

~~ii. Umbilical cord~~

~~iii. Amniotic fluid~~

~~iv. Fetal organs to include:~~

~~(a) Fetal head and face~~

~~(b) Spine~~

~~(c) Heart~~

~~(d) Lungs~~

~~(e) Diaphragm~~

~~(f) Abdominal wall and skin lines~~

~~(g) Digestive system, including the gastrointestinal tract~~

~~(h) Kidneys and bladder~~

~~(i) Reproductive organs~~

~~(j) Skeletal system~~

9) Multiple pregnancies

10) Growth patterns

11) Congenital and hereditary pathologies

12) Fetal monitoring

13) Pregnancy complications, including

a) Ectopic pregnancy

- b) ~~Blighted ovum~~
- e) ~~Abortion~~
- d) ~~Trophoblastic diseases~~
- e) ~~Corpus Luteum cyst~~
- f) ~~Placenta Previa~~
- g) ~~Abruption placenta~~
- 14) ~~Maternal diseases, including~~
 - a) ~~Diabetes~~
 - b) ~~Hypertension~~
 - e) ~~Myoma~~
 - d) ~~Hydronephrosis~~
 - e) ~~Cervical incompetence~~
 - f) ~~Hyperemesis~~
 - g) ~~Maternal infections~~
- 15) ~~Fetal diseases, including~~
 - a) ~~Intrauterine growth restriction~~
 - b) ~~Macrosomia~~
 - e) ~~Hydrops fetalis~~
 - d) ~~Bradycardia~~
 - e) ~~Fetal death~~
- 16) ~~Post partum complications~~
- 17) ~~Therapeutic procedures~~

f. d. Graduates ~~demonstrate knowledge and understanding of~~ will be able to recognize and identify the normal sonographic appearance, ~~including~~ variants and ~~normal Doppler findings in~~ the Graduates ~~must demonstrate knowledge and understanding of the role of sonographers in~~ performing invasive, interventional, and therapeutic procedures; including:

- 1) Breast biopsy
- 2) Thyroid biopsy
- 3) Liver biopsy
- 4) Renal biopsy
- 5) Soft tissue biopsy
- 6) Lymph node biopsy
- 7) Thoracentesis
- 8) Paracentesis
- 9) Chorionic villus sampling
- 10) Amniocentesis
- 11) Fine needle aspiration
- 12) Umbilical cord sampling
- 13) Umbilical cord transfusion
- 14) In-vitro fertilization

e. e. Graduates ~~demonstrate knowledge and understanding of~~ will be able to recognize sonographic pathologies, and: ~~must recognize and identify the abnormal sonographic appearance and Doppler patterns of diseases related to structures listed in b (above).~~

- 1) Apply the appropriate scanning protocol, techniques, and measurements in correlation with the following clinical information:
 - a) History and physical examination
 - b) Other imaging and laboratory findings
 - c) Primary Diagnosis
 - d) Differential Diagnosis

2) ~~Recognize~~ Identify sonographic appearance and ~~Doppler~~ patterns of pathologies in the following categories:

- a) Iatrogenic pathologies
- b) Degenerative pathologies
- c) Inflammatory pathologies
- d) Traumatic pathologies
- e) Neoplastic pathologies
- f) Infectious pathologies
- g) Obstructive pathologies
- h) Congenital anomalies
- i) Hereditary pathologies
- j) Metabolic pathologies
- k) Immunologic pathologies

f. Graduates will be able to recognize sonographic obstetric pathology, and:

a) 1) Apply the appropriate scanning protocol, techniques, and measurements in correlation with the following clinical information:

- a) History and physical examination
- b) Other imaging and laboratory findings
- c) Primary Diagnosis
- d) Differential Diagnosis

b) 2) Graduates must recognize and identify the sonographic appearance and ~~Doppler~~-findings of pathologies in the following areas and conditions:

- a) Placenta
- b) Umbilical cord and insertion
- c) Amniotic fluid
- d) Fetal organs to include:
 - (1) Fetal head and face
 - (2) Fetal brain
 - (3) Spine
 - (4) Heart
 - (5) Lungs
 - (6) Diaphragm
 - (7) Abdominal wall and cavities, and skin lines
 - (8) Digestive system, including the gastrointestinal tract
 - (9) Kidneys and bladder
 - (10) Reproductive organs
 - (11) Muscular skeletal system
- e) Multiple pregnancies
- f) Growth patterns/fetal development
- g) Congenital anomalies and hereditary pathologies
- 12) Fetal monitoring
- h) Pregnancy complications, including
 - a) Ectopic pregnancy
 - b) Blighted ovum
 - c) Abortion
 - d) Trophoblastic diseases
 - e) Corpus Luteum cyst
 - f) Placenta Previa
 - g) Abruptio placenta
- i) Maternal diseases, including

- a) Diabetes
- b) Hypertension
- c) Myoma
- d) Hydronephrosis
- e) Cervical incompetence
- f) Hyperemesis
- g) Maternal infections
- j) Fetal diseases, including
 - a) Intrauterine growth restriction
 - b) Macrosomia
 - c) Hydrops fetalis
 - d) Bradycardia
 - e) Fetal death
- k) Post-partum complications
- l) Therapeutic procedures

d. Graduates must recognize and identify the normal sonographic appearance, including anatomical variants and normal Doppler findings of the structures in the female pelvis.

Female Pelvis

1) Areas for evaluation:

- a) Reproductive System
 - i. Uterus
 - ii. Vagina
 - iii. Ovaries
 - iv. Adnexa
- b) Pelvic musculature
- c) Peritoneal spaces
- d) Pelvic vasculature

2) Apply the appropriate scanning protocol, techniques, and measurements in correlation with the following clinical information:

- a) History and physical examination
- b) Other imaging and laboratory findings
- c) Primary Diagnosis
- d) Differential diagnosis

3) Recognize sonographic appearance and Doppler patterns of pathologies in the following categories:

- a) Iatrogenic
- b) Degenerative
- c) Inflammatory
- d) Neoplastic
- e) Infectious
- f) Obstructive
- g) Congenital
- h) Hereditary
- i) Metabolic
- j) Immunologic

e. Graduates must recognize and identify the sonographic appearance and Doppler findings of normal maternal and fetal structures during the first, second, and third trimesters of gestation, including:

- 1) Gravid uterus, cervix, vagina, ovaries and cul-de-sac, maternal kidneys and bladder
- 2) Embryological structures, including the gestational sac, yolk sac, embryo

3) Fetal head and face, brain, heart, lungs abdomen, stomach, diaphragm, spine, kidneys, bladder, reproductive organs and extremities.

4) Umbilical cord

5) Fetal abdominal wall

6) Pertinent assessment and measurement of fetal structures, including gestational sac, yolk sac, fetal heart rate, placental grading, biophysical profile scoring

7) Biometric measurements, including biparietal diameter, head circumference, cephalic index, orbital, lateral ventricles, cisterna magna, nuchal fold, cerebellar diameter thoracic circumference, abdominal circumference, femur length, and humerus length.

a) Apply the appropriate scanning protocol, techniques, and measurements in correlation with the following clinical information:

i. History and physical examination

ii. Other imaging and laboratory findings

iii. Primary Diagnosis

iv. Differential Diagnosis

b) Graduates must recognize and identify the sonographic appearance and Doppler findings of pathologies in the following areas and conditions:

i. Placenta

ii. Umbilical cord

iii. Amniotic fluid

iv. Fetal organs to include:

(a) Fetal head and face

(b) Spine

(c) Heart

(d) Lungs

(e) Diaphragm

(f) Abdominal wall and skin lines

(g) Digestive system, including the gastrointestinal tract

(h) Kidneys and bladder

(i) Reproductive organs

(j) Skeletal system

9) Multiple pregnancies

10) Growth patterns

11) Congenital and hereditary pathologies

12) Fetal monitoring

13) Pregnancy complications, including

a) Ectopic pregnancy

b) Blighted ovum

c) Abortion

d) Trophoblastic diseases

e) Corpus Luteum cyst

f) Placenta Previa

g) Abruptio placenta

14) Maternal diseases, including

a) Diabetes

b) Hypertension

c) Myoma

d) Hydronephrosis

e) Cervical incompetence

f) Hyperemesis

g) Maternal infections

- 15) Fetal diseases, including
 - a) Intrauterine growth restriction
 - b) Macrosomia
 - c) Hydrops fetalis
 - d) Bradycardia
 - e) Fetal death

16) Post partum complications

17) Therapeutic procedures

f. ~~Graduates must demonstrate knowledge and understanding of the role of sonographers in performing invasive, interventional, and therapeutic procedures, including:~~

- 1) Breast biopsy
- 2) Thyroid biopsy
- 3) Soft tissue biopsy
- 4) Thoracentesis
- 5) Paracentesis
- 6) Chorionic villus sampling
- 7) Amniocentesis
- 8) Fine needle aspiration
- 9) Umbilical cord sampling
- 10) Umbilical cord transfusion
- 11) In vitro fertilization

B. Cardiac Learning Concentration

a. ~~Graduates will be able to recognize and identify the normal sonographic appearance, variants and normal Doppler findings in the heart and surrounding associated structures: Sonographic appearance of normal anatomic structures, including anatomic variants and normal Doppler patterns, of the following:~~

- 1) Embryology and fetal cardiac development
- 2) Location of the heart in the chest cavity
- 3) Chambers and septations of the heart
- 4) Valves and valve dynamics
- 5) ~~Right and left~~ Coronary arteries
- 6) Great vessels

b. ~~Pathological conditions, clinical indications, imaging techniques, and reporting procedures for the Cardiac Learning Concentration.~~

e. b. ~~Graduates will be able to understand: Principles of Electrocardiology assessment techniques for the cardiac patient:~~

- 1) Basic assessment techniques
- 2) History and physical
- 3) Vital signs assessment
- 4) Cardiac assessment
- 5) Rhythm
- 6) Heart sounds/ and auscultation
- 7) Murmurs
- 8) Percussion
- 9) Respirations
- 10) Cyanosis/ diaphoresis
- 11) Edema/dependent/pitting
- 12) Pulse oximetry
- 13) Lab results —cardiac enzymes
- 14) Level of consciousness

c. Graduates will be able to recognize and identify the normal appearance, variants and findings associated with the Principles of Electrocardiology/Electrophysiology:

1) Application and completion of EKGs of high technical quality

2) ECG/EKG measurements and waveform recognition

3) Identification of arrhythmia

4) Identification of conduction defects

5) Determination of axis

6) Recognition of patterns of ischemia, injury, and infarction

7) Recognition of hypertrophy

8) Identification of electrolyte imbalance changes

9) Identification of valve abnormalities

10) Identification of pacemaker rhythms and ICDs

11) Artifacts

12) Practice of basic life support principles

13) Completion of 12 Lead EKGs of high technical quality

d. Graduates will be able to demonstrate knowledge of the basic principles of pharmacology specific to cardiology:

1) ADME of cardiac specific drugs

2) Use of drugs used for cardiac emergency

3) Recitation of medical/legal requirements and classifications

4) Listing of pharmacodynamics and pharmacokinetics:

a) Adrenergic

b) Cholinergic

c) Vasopressors and vasodilators

d) ACE inhibitors

e) Anticoagulants/thrombolytic

f) Nitrates

g) Antiarrhythmic

h) Diuretics and antihypertensive

i) Cardiac glycosides

j) Calcium channel drugs

k) ~~B~~beta blockers

l) Analgesics

m) Antibiotics

n) Contrast agents

15) Oxygen

16) Contrast agents

17) Analgesics

18) Antibiotics

e. Graduates will be able to recognize and identify the normal sonographic appearance, variants and findings associated with Pathological mechanisms, clinical manifestations and appropriate therapeutic measures, of diseases and congenital anomalies that affect the heart and vascular systems:

1) Acquired cardiovascular diseases

a) Atherosclerosis

b) Coronary artery disease (CAD)

c) Valvular heart disease

d) Cardiomyopathy

e) Pericardial myocardial and endocardia disease

f) Hypertension/stroke

- g) Infections
- h) Tumors
- i) Heart failure
- j) Aneurysms
- 2) Congenital cardiovascular diseases
- a) Acyanotic
- b) Cyanotic
- e) Obstructive

f. Graduates will be able to correlate ~~Correlation of~~ diagnostic data obtained during various non-invasive tests/ procedures:

- 1) Holter monitoring and scanning
- 2) Phonocardiography, as it relates to the cardiac cycle
- 3) Graded Exercise Stress Test (GEST)
- 4) Pacemaker function, cardioversion, and defibrillation
- 5) Telemetry
- 6) Radionuclide tests
- 7) Utilization of hemodynamic principles by:
 - a) ~~Definition of laws of flow~~
 - b) ~~Identification of types of flow~~
 - e) ~~Recitation of principles of flow~~
 - d) ~~Listing of measurements and normal values~~

g. Graduates will be able to demonstrate knowledge of the ~~Principles-principles~~ of cardiovascular technology involved with the collection, application, and interpretation of basic ultrasound imaging using:

- 1) 2-D gray-scale imaging;
- 2) M-mode;
- 3) Spectral Doppler
- 4) Color flow Doppler
- 5) and Tissue Doppler imaging;
- 6) and Strain imaging

h. Graduates will be able to explain and demonstrate ~~P~~proficiency with M-mode, two-dimensional echocardiography, and Doppler imaging, such as: ~~in addition to the recognition of sonographic changes related to pathologic conditions:~~

- 1) ~~Utilization of~~ advanced techniques of scanning and proficiency with the continuous wave (CW) non-imaging (blind) transducer (~~aka Pedoff or pencil transducer~~)
- 2) ~~Recitation and~~ measuring of cardiac structures and ventricular function
- 3) ~~Completion of~~ qualitative evaluation of cardiac chambers, ~~and~~ wall segments, and valve motion
- 4) ~~Utilization of~~ acceptable protocols in a timely manner for documentation of sonographic findings

i. ~~Identification of disease states with the use of M-mode, two-dimensional, and Doppler studies:~~

- 1) ~~Coronary artery disease and ischemic heart diseases~~
- 2) ~~Cardiomyopathies~~
- 3) ~~Valvular diseases~~
- 4) ~~Pericardial, myocardial and endocardia diseases~~
- 5) ~~Aneurysms~~
- 6) ~~Congenital defects and diseases~~
- 7) ~~Tumors~~
- 8) ~~Pulmonic and systemic hypertension~~
- 9) ~~Prosthetics—mechanical and bio-prosthetics~~
- 10) ~~Thrombi~~
- 11) ~~Cardiac Trauma~~

j. Graduates will be able to u~~U~~nderstanding ~~of~~ the indications, contraindications, limitations, and procedures below: ~~for related sonographic tests:~~

- 1) Stress echocardiography
- 2) Trans esophageal echocardiography
- 3) Intraoperative echocardiography
- 4) Sterile technique/disinfection
- 5) Contrast echocardiography
- 6) Three-dimensional echocardiography
- 7) Echo guided procedures

k. Assessment techniques for the cardiac patient:

- 1) Basic assessment techniques
- 2) History and physical
- 3) Vital signs assessment
- 4) Cardiac assessment
- 5) Rhythm
- 6) Heart sounds/auscultation
- 7) Murmurs
- 8) Percussion
- 9) Respirations
- 10) Cyanosis/diaphoresis
- 11) Edema/dependent/pitting
- 12) Pulse oximetry
- 13) Lab results—cardiac enzymes
- 14) Level of consciousness

i. Graduates will be able to recognize and identify the normal sonographic appearance, variants and findings associated with Pathological mechanisms, clinical manifestations and appropriate therapeutic measures, of diseases and congenital anomalies that affect the heart and vascular systems:

- 1) Acquired cardiovascular diseases
- 2) Congenital cardiovascular diseases
- 3) Cardiac trauma

j. Graduates will be able to understand sonographer's role with various treatment options:

- 1) Conservative
- 2) Medical/Pharmacology
- 3) Interventional

C. Vascular Learning Concentration

a. Graduates will be able to demonstrate knowledge of sSonographic appearance of normal anatomic structures, including anatomic variants and normal Doppler-patterns, of the following:

- 1) Cerebrovascular
 - a) Extra-cranial cerebrovascular system
 - b) Trans-cranial/intracranial cerebrovascular system
- 2) Aortic arch branches-Great vessels
- 3) Upper extremity venous
- 3)4) Abdominal vasculature
- 4)5) Lower Upper extremity arterial vasculature
- 6) Lower extremity venous vasculature

~~b. Pathological mechanisms, clinical manifestations and appropriate therapeutic measures, of diseases and congenital anomalies that affect the peripheral vascular system~~

~~c. Imaging techniques and reporting procedures for the Vascular Learning Concentration.~~

~~d. Physical principles of vascular ultrasound and demonstration of knowledge of basic hemodynamics~~

~~b.e. Graduates will be able to understand p~~ Patient history and recognize signs and symptoms of vascular disease, ~~including: review of patient's chart and comparison with previous medical testing~~

- ~~1) Basic assessment techniques~~
- ~~2) History and physical~~
- ~~3) Vital signs assessment~~
- ~~4) Prior medical assessment, procedures and treatment~~
- ~~5) Vascular assessment and rhythm~~
- ~~6) Respirations~~
- ~~7) Cyanosis/ erythema/ diaphoresis~~
- ~~8) Edema~~
- ~~9) Pulse oximetry~~
- ~~10) Lab results~~
- ~~11) Level of consciousness~~

~~cf. Graduates will be able to demonstrate knowledge of n~~ Noninvasive vascular equipment controls (e.g., scale, gain, size, filter, angle correction, electronic steering, invert, sample volume size, power output, color amplitude, b-flow, flow measurement, etc.) ~~with use of in~~ instruments and techniques including:

- ~~1) Duplex ultrasound~~
- ~~2) Color flow Doppler~~
- ~~3) Power Doppler~~
- ~~3) Continuous wave (CW) Doppler and zero crossing detector~~
- ~~4) Pulsed wave Doppler and spectral analysis~~
- ~~5) Continuous wave (CW) Doppler~~
- ~~6) Arterial plethysmography~~
- ~~7) Photoplethysmography~~
- ~~8) Segmental blood pressures~~

~~7) Photoplethysmography~~

~~g. Noninvasive vascular testing; perform extra-cranial carotid and vertebral artery exams using:~~

- ~~1) Duplex imaging~~
- ~~2) Duplex PW Doppler with spectral analysis~~
- ~~3) Duplex color Doppler~~
- ~~4) Calculation Measurements~~
- ~~5) Peak systolic/end diastolic velocities~~
- ~~6) ICA/CCA ratio~~

~~h. Trans-cranial Doppler and/or imaging~~

- ~~1) MCA, ACA, PCA, basilar artery~~

~~i. Arterial exams of the lower and upper extremities including:~~

- ~~1) Continuous Wave (CW) Doppler waveforms~~
- ~~2) Segmental Pressures (SBP's, ABI's)~~
- ~~3) Segmental Plethysmography (PVR's)~~
- ~~4) Digital pressures using photoplethysmography (PPG)~~
- ~~5) Exercise testing~~
- ~~6) Duplex scanning of native arteries of the upper and lower extremities~~
- ~~7) Duplex scanning of bypass grafts~~
- ~~8) Thoracic outlet testing~~
- ~~9) Palmar arch testing~~
- ~~10) Pseudo-aneurysm identification and compression~~
- ~~11) Arteriovenous fistula identification~~
- ~~12) Penile artery testing~~

~~j. Venous exams of the lower and upper extremities using duplex ultrasound by:~~

- ~~1) Duplex imaging~~

- 2) Color Doppler
- 3) Pulsed Doppler spectral analysis
- 4) PPG venous reflux exam
- k. Abdominal and visceral duplex exams of the:
 - 1) Aorta and iliac arteries
 - 2) Celiac axis
 - 3) Renal arteries and kidneys
 - 4) Superior mesenteric arteries
 - 5) Inferior vena cava
 - 6) Hepato portal system
- d. Graduates will be able to acquire data assessment from through vascular assessments exams and to create
 - a preliminary interpretation/ and summary of findings that demonstrate:
 - 1) Correlation of vascular diagnostic techniques with patient history and physical examination
 - 2) Knowledge of proper applied indications for vascular procedures
 - 3) Knowledge of differential diagnosis
 - 4) An understanding of interventional vascular procedures
 - 5) Accuracy and limitations of noninvasive vascular exams
 - 6) Correlation of findings with other imaging modalities and labs
- m. Accuracy and limitations of noninvasive vascular exams
- n. Data collection and statistical validation
- o. Understand quality assurance testing and statistical analysis of ultrasound lab test results
- p. Other diagnostic tests used to assess vascular disease such as:
 - 1) Angiography
 - 2) Venography
- q. Magnetic resonance angiogram and flow meters
- r. Computed tomography
- e. Graduates will be able to understand and identify pathological mechanisms, clinical manifestations and appropriate therapeutic measures that affect the vascular system and surrounding structures including:
 - 1) Acquired vascular diseases
 - 2) Congenital vascular diseases
 - 3) Vascular trauma
- s. Treatment options for patients with various levels of vascular disease including:
 - 1) Conservative
 - 2) Medical/pharmacology
 - 3)
- t. Vascular surgery and interventional vascular procedures
 - 1) Intravascular ultrasound
 - 2) Angioscopy
 - 3) Percutaneous transluminal angioplasty (with and without stenting)
 - 4) Endarterectomy (with and without patch grafting)
 - 5) Vascular bypass (venous and synthetic grafting)
 - 6) Embolectomy
 - 7) Thrombectomy
 - 8) Atherectomy
- f. Graduates will be able to understand sonographer's role with various treatment options:
 - 4) Conservative
 - 5) Medical/Pharmacology
 - 6) Interventional

DMS.A.2. *A clinical experience is required for completion of the program.*

~~The majority of the students' core clinical experiences are obtained at sites that are accredited by a recognized agency or that meet similar standards.~~

The following is considered in choosing, placing, and maintaining ~~for~~ clinical site affiliations:

(a.) Assignment

Clinical experiences include placement at a facility that performs various types of activities that will expose the student to the necessary skills required of the profession. In all cases, the clinical site ~~used~~ is properly approved ~~licensed~~ and regulated.

~~For the program's **general sonography concentration**, the majority of the students' clinical experiences are performed at sites that perform a proportionate number of completed patient examinations per year to support the clinical experience. At least two thirds of a student's experience with clinical procedures is balanced between abdominal and obstetrical-gynecological procedures. If multiple sites are used, the volume and variety of procedures interrelate or combine to meet this volume and variety. The program must identify a list of the necessary competencies which complement the program objectives.~~

~~For the program's **cardiac concentration**, the majority of the students' ~~cardiac~~ clinical experiences are spent at sites that perform a proportionate number of examinations per year, with an appropriately balanced mix of procedures to achieve the objectives of the curriculum. If multiple sites are used, the volume and variety of procedures interrelate/combine to meet this volume and variety.~~

~~For the program's **vascular concentration**, the majority of the students' vascular clinical experiences are spent at sites that perform a proportionate number of exams per year, with an appropriately balanced mix of procedures to achieve the objectives of the curriculum. If multiple sites are used, the volume and variety of procedures interrelate/combine to meet this volume and variety.~~

(b.) Activities

(no additional requirements beyond Chapter H-V)

(c.) Supervision

~~There is direct supervision of all students in the field while participating in a clinical experience. Programs clarify their role in how their students will be supervised at the clinical experience site; by whom and frequency of the evaluation. There is clear and documented communication between the program and the clinical site. The supervising sonographer (i) is a registered sonographer credentialed by a nationally recognized accrediting agency, and (ii) demonstrates either completion of a formal educational program in the field in which they are instructing and a minimum of two years of occupational experience in the specific field (or closely related field), or demonstrate a minimum of four years of job-related training and experience in the subject field, and (iii) understands the program expectations.~~

There is direct supervision of all students in the field while participating in clinical experiences. Programs clarify their role in how students will be supervised, by whom and visited how often while at their site. There is clear and documented communication between the program and the clinical site.

If the program does not employ a supervisor on site, a qualified preceptor employed by the clinical site meeting the program supervision requirements described in Section B below for either supervisor or faculty qualifications; is responsible for such supervision.

Students may not function as facility staff while participating in clinical activities and/or rotations. Students may not receive any compensation while participating in clinical rotations or work, which made known to

the student prior to commencement of the clinical rotations. The student is clearly in addition to the facility staff/team and not a substitution.

~~Program staff visits clinical sites on a regular basis to ensure validity of the clinical experience. Program staff may monitor the clinical training of students through telephone contact, written reports and any other methods deemed necessary to ensure the validity of the clinical experience. Evidence of such validation is maintained for each student. There is regularly scheduled documentation of student attendance and progress by assigned clinical preceptors. Preceptors are registered sonographers.~~

~~The ratio of students to preceptors must not exceed one to one.~~

~~If an institution utilizes eight or more active clinical sites for its program, it should have an additional faculty member designated as a full-time Clinical Coordinator.~~

(d.) Requirements for Completion

Upon completion of the clinical rotation/s, students demonstrate entry-level proficiency in all areas of the curriculum. Students also fulfill requirements in accordance with curricula distributions for general education, curricular requisites and learning concentration ~~and specialty areas and level of complexity.~~

SECTION B – Program Supervision

DMS.B.1. The program supervisor is credentialed and experienced in the field.

~~The program supervisor demonstrates academic and experiential background in the Diagnostic Medical Sonography profession, and possesses an active registration/credential from a nationally recognized sonography credentialing agency.~~

The program supervisor:

- ~~(i)~~ (i) holds, at a minimum, a bachelor's degree earned at an institution accredited by an agency recognized by the U.S. Secretary of Education or the Council for Higher Education Accreditation (CHEA) or an otherwise recognized training entity (e.g., hospital-based program) in the specialty field or subject area in which they supervise, and
- ~~(ii)~~ (ii) possesses ~~two~~ three years of teaching or occupational experience in the field, and
- ~~(iii)~~ (iii) demonstrates academic and experiential background in the Diagnostic Medical Sonography profession, and
- ~~(iv)~~ (iv) possesses an active registration/credential from a nationally recognized sonography credentialing agency.

~~The program supervisor may have teaching or clinical oversight assignments, but the assignments allow adequate time for administrative and program oversight responsibilities.~~

DMS.B.2.b. Faculty numbers and ratio support the goals of the program. (no additional requirements beyond Chapter H-V)

DMS.B.2.c. A program must be served by a medical advisor and advisory board of program related specialists to assist administration and faculty in fulfilling stated educational objectives.

A medical advisor attends advisory board meetings and acts as a consultant to the program by participating in goal determination, curriculum development, and outcomes assessment review. The medical advisor is a physician, and is currently licensed within a jurisdiction of the United States. The medical advisor is board

certified in a relevant medical specialty and ~~(e.g., radiologist (ACR), OB-GYN (AIUM), Vascular (FACS), and is experienced in~~ has knowledge of the use of medical ultrasound.

SECTION C – Laboratory Facilities and Resources

DMS.C.1. *The institution's laboratory facilities include the following:*
(no additional requirements beyond CHV)

A dedicated space to support the role of a diagnostic medical sonographer that meets the requirements of the current curriculum.

DMS.C.2. *Equipment and instruments are available within the institution's laboratory facility to achieve the program's goals and objectives.*

Equipment and instruments support the requirements of the current curriculum.

DMS.C.3. *The institution's laboratory facilities are available for students to develop required skills with faculty supervision.*
(no additional requirements beyond Chapter ~~H~~V)

CHAPTER VIII-MTB
EVALUATION STANDARDS
FOR MASSAGE THERAPY AND BODYWORK

The Accrediting Bureau of Health Education Schools (ABHES) does not programmatically accredit any massage therapy/bodywork programs, whether at a basic level or at a more advanced level of practice. As part of its accreditation of an institution, ABHES requires that each educational program offered by the institution separately demonstrate compliance with all applicable standards, described throughout the Accreditation Manual, including the general evaluation standards applicable to all institutions (Chapter IV), the standards applicable to all programs offered (Chapter V). In addition, degree-granting programs must comply with Chapter VI. For purposes of this chapter, any program identified as “massage therapy” or “bodywork” or any other name or designation that is reasonably understood by professionals in the field, students, or the public to have the same meaning complies with these standards. This chapter is equally applicable to any educational program offered by the institution that intends to prepare graduates for employment based on the knowledge and skills set forth in this chapter.

DESCRIPTION OF THE PROFESSION

Massage Therapists and Bodyworkers are multi-skilled health professionals who perform a wide range of modalities in a variety of health care and alternative/complementary health care settings, including but not limited to: massage clinics, physicians' offices/hospitals, chiropractic offices, health and wellness centers, acupuncture centers, sports and rehabilitative facilities, various spa settings, private practices, corporate offices, health clubs, salons, professional sporting organizations/teams, cruise ships, etc. Massage therapists and bodyworkers may be self-employed, contract their services to businesses, or may be employed by larger companies.

Duties may vary depending upon setting and size of company, but can normally include: clinically assessing, educating, and consulting with the client/patient; answering phones; setting appointments; preparing the treatment room; sanitizing treatment areas; laundering linens; taking case notations; and, billing, among other functions.

Massage therapy and bodywork modalities generally practiced include but are not limited to: Swedish Massage; Reflexology; Zone Therapy; Deep Tissue; Sports Massage; Trigger Point Therapy; Neuromuscular Therapy; Myofascial Release; Structural Integration; Prenatal, Perinatal, or Infant Massage; Craniosacral Therapy; various Traditional Chinese Medicine (TCM) and bodywork like Shiatsu, Thai Massage, Tui Na, Jin Shin Do, Ayurvedic Massage, energy therapy; Hydrotherapy techniques for rehabilitation; and, spa treatments for physiologic homeostasis.

CREDENTIALING

Credentialing/state licensing in massage therapy is encouraged for graduates of ABHES-accredited programs. Programs are expected to prepare students for state or national credentialing examinations available in this field of study. States have varying requirements for credentialing and/or licensure.

SECTION A – Curriculum, Competencies, and Clinical Experiences

MTB.A.1. The depth and breadth of the program’s curriculum enables graduates to acquire the knowledge and competencies necessary to become an entry-level professional in the massage therapy and bodywork field.

Competencies required for successful completion of the program are delineated, and the curriculum ensures achievement of these entry-level competencies through coursework and skills assessments. Students are advised, prior to enrollment and throughout the program, of any credentialing requirements necessary to achieve and/or maintain employment in the field. Focus is placed on increasing the marketability and employability of graduates through credentialing.

To provide for attainment of entry-level competencies, the program curriculum must be a minimum of 500 hours of supervised instruction that complies with state licensing requirements and includes, but not necessarily be limited to, the following:

1. Theory, Principles, and Practice

Graduates will be able to:

- a. Describe the physiological effects or benefits of massage and bodywork
- b. Demonstrate proper body mechanics (general stance, movement, and strokes)
- c. Define and understand history, benefits and contraindications to massage and bodywork
- d. Identify and demonstrate the appropriate application of each of the five basic Swedish massage strokes and their variations
- e. Perform a 50-minute Swedish massage demonstrating the five basic Swedish massage strokes

2. Ethics, Professionalism, and the Therapeutic Relationship

Graduates will be able to:

- a. Define, understand, and demonstrate all the parameters and ramifications of touch in society and in somatic therapy professions:
 - 1) Touch as Sensory Input and Communication
 - 2) Touch in Different Cultures
 - 3) Unwanted Touch & Touch-related Crimes
 - 4) Touch-related Therapies
 - 5) Touch and Positions in Power (i.e., Dynamics)
 - 6) Dual or Multiple Relationships
 - 7) Oral & Written Communication Skills
 - 8) Personal Hygiene & Maintenance
 - 9) Marketing Massage (i.e., resumes, letters of introduction, advertising)
 - 10) Business Ethics
 - 11) Basic Accounting Skills for office and tax purposes
 - 12) Confidentiality
 - 13) Mandatory Reporting
 - 14) State Massage Law

3. Adapting Sessions for Special Populations

Graduates will be able to:

- a. Accommodate client/patient-specific needs
- b. Identify and adapt care to specific client/patient conditions (e.g., mental illness, PTSD, hospice, physical impairment, pregnancy, pediatric, geriatric, etc.)

4. Anatomy, Physiology, and Pathology

Graduates will be able to:

- a. Identify and demonstrate detailed knowledge of anatomy and physiology including, but not limited to the following body systems:

- 1) skeletal
- 2) muscular
- 3) integumentary
- 4) cardiovascular
- 5) nervous
- 6) lymphatic
- 7) connective tissue
- 8) digestive
- 9) urinary
- 10) respiratory
- 11) endocrine
- 12) reproductive

- b. Understand the basic structure of pathology terminology

- c. Identify word element combinations; i.e., *prefixes, suffices, and root words*

- d. Understand medical terminology and common abbreviations

- e. Learn common pathologies seen in massage therapy and bodywork professions

- f. Understand common pathogens, pathways of infections, preventions, and treatments

- g. Understand universal precautions and their relevance to preventing the spread of HIV and other blood borne pathogens

5. Assessment and Documentation

Graduates will be able to:

- a. Recognize, during patient intake, the general indications and contraindications of massage and bodywork
- b. Identify different classes of pharmaceuticals and contraindications
- c. Utilize patient intake form in clinical assessment
- d. Define S.O.A.P. notes, and other assessment tools

6. Massage and Bodywork Application

Graduates will be able to:

- a. Understand and demonstrate/perform skills in various bodywork-related methodologies
- b. Demonstrate proper draping
- c. Perform table and/or mat setup and maintenance
- d. Identify and understand the use of various industry-standard therapy-related equipment (e.g., bolsters and hot packs)
- e. Distinguish between various lubricants
- f. Understand and practice universal precautions

7. Palpatory Kinesiology

Graduates will be able to:

- a. Identify and describe individual and synergistic muscle action
- b. Comprehend how muscles become restricted in movement from trauma or disuse
- c. Demonstrate passive and active stretching to increase ROM
- d. Understand muscle location, attachment, actions and fiber-direction
- e. Identify types of muscle contraction (e.g., concentric, eccentric, and isometric)
- f. Comprehend joint structure and function

8. Career Development

Graduates will be able to:

- a. Demonstrate nationally recognized certification in First Aid/CPR
- b. Understand and demonstrate vocal and written communication skills in the workplace
- c. Understand and create marketing techniques for massage practice including effective resumes as well as letters of introduction, and advertising
- d. Learn personal effectiveness communication skills
- e. Understand and demonstrate basic accounting skills for the office and tax purposes
- f. Understand and demonstrate basic business ethics skills for the office
- g. Demonstrate understanding of State massage regulations
- h. Demonstrate professional behavior

MTB.A.2. A clinical experience is required for the completion of the program.

The program provides external and/or internal clinical experiences to expose students to the various skills required of the profession.

a. Assignment

External or internal clinical sites include placement at a facility that performs various types of activities

that will expose the student to the necessary skills required of the profession. In all cases, the site is properly licensed and regulated.

b. Activities

(no additional requirements beyond Chapter V)

c. Supervision

(no additional requirements beyond Chapter V)

d. Requirements for Completion

(no additional requirements beyond Chapter V)

MTB.A.3. Sufficient hands-on lab time is available for students to develop required massage techniques within a classroom environment under constant faculty supervision.

SECTION B – Program Supervision, Faculty, and Consultation

Subsection 1 – Supervision

MTB.B.1. Program supervisor is credentialed and experienced in the field.

A program supervisor has:

- a. a minimum of an associate degree;
- b. teaching experience; and
- c. a current massage therapy registration, license or certification through the state in which they work or nationally recognized agency.

Subsection 2 – Faculty and Consultation

MTB.B.2.a. Faculty formal education/training and experience support the goals of the program.

Program faculty must demonstrate knowledge and proficiency in their content area. Faculty teaching in any advanced modality must evidence continuing education hours or a certification(s) in the modality being taught.

MTB.B.2.b. Faculty numbers and ratios support the goals of the program.

(no additional requirements beyond Chapter V)

MTB.B.2.c. A program must be served by an advisory board comprised of related specialists to assist administration and faculty in fulfilling stated educational objectives.

(no additional requirements beyond Chapter V)

SECTION C – Laboratory and Massage Clinic Facilities and Resources

MTB.C.1.a. The institution's laboratory facilities include the following:

- a. sufficient space to comfortably accommodate the number of students enrolled, faculty, and equipment during instruction and practice lighting, electrical outlets, ventilation, and storage space;
- b. lighting, electrical outlets, ventilation, and storage space;
- c. a controlled environment conducive to instruction, learning, and practice; and
- d. sufficient space to create, maintain, and securely store patient records.

MTB.C.1.b. Equipment and instruments are available and in good working condition within the institution's laboratory facility or adjoining areas to achieve the program's goals and objectives.

Equipment and instruments to support current enrollment include, but are not limited to:

- a. massage tables
- b. bolsters and pillows
- c. face rests
- d. massage chairs (if taught within curriculum)
- e. blankets
- f. skeleton
- g. anatomical charts
- h. antibacterial cleansers
- i. hand washing basins and paper towels

MTB.C.1.c. The institution's laboratory facilities are available for students to develop required skills under direct faculty supervision.

Laboratory facilities are open to students under faculty supervision during class time as well as for makeup during posted hours.

GLOSSARY OF DEFINITIONS

~~The following definitions are provided for informational purposes only to assist institutions and programs in understanding and interpreting the Accreditation Manual and are not to be considered separate standards. The definitions include some of the most commonly used terms and are defined to reflect their most common usage. These definitions are drawn from no single resource and are offered by way of example rather than limitation.~~

~~**Advisory Board**—A group composed of skilled and knowledgeable individuals from business, industry, and the community organized to advise on current jobs, societal needs, and relevance of the program offerings in meeting the needs of students, society, and the employing community. Recommendations made by the committee are used to design, develop, operate, assess, and support the educational program.~~

~~**Annual Report** – Outcome and operational data Submitted yearly by every member-accredited institutions and programs in October. The ABHES Annual Report covers for the period covering of July 1st through June 30th of the given reporting year. The report contains outcome and operational data questions pertaining to items such as program offerings, retention, placement, credentialing and enrollment.~~

Applied General Education – Applied general education is defined as courses that involve the application of principles and concepts in communications, humanities and fine arts, mathematics, natural and physical sciences, social and behavioral sciences, and technology to the practical affairs of a specific occupation or occupational cluster. Examples of courses that are not considered applied general education include: Study Skills, CPR/First Aid, Professionalism, Career Development and Master Student. Applied general education courses enhance the ability of an individual to apply academic and occupational skills in the workplace. Only Associate of Occupational Science degrees may include applied general education courses.

Certificate – ~~A document issued to~~ Credential awarded to -evidence successful completion of/or graduation from an academic program, generally less than two years in length where a degree is not earned.

Clinical Experiences – A supervised practical experience where students demonstrate ~~the~~ knowledge and skills ~~they have~~ acquired that includes specific learning objectives and evaluation criteria.

i.) **External Clinical Experiences** – A field-based, externship or clinical experience and includes accomplished through assignments in a health care setting such as a hospital, long-term care facility, clinic, community health agency, or other approved health care provider. A a written agreement between the institution and the externship or clinical site including specific learning objectives and evaluation criteria.

ii.) **Internal Clinical Experiences** – A campus-delivered internship or clinical experience that may be incorporating actual or simulated patient care.

~~**Clock (or Contact) Hour**—A minimum of 50 minutes of supervised or directed instruction including allowable break(s).~~

Competencies – Specialized knowledge, skills, and attitudes cognitive, psychomotor, and affective domains required for successful performance in a specific occupation.

~~**Contractual Arrangements**—Contracts between the institution and any agency, corporation, institution, or individual which involve instruction, recruiting, or consulting services.~~

~~**Criterion**—A characteristic of an institution that must be possessed or demonstrated as evidence of compliance with an accreditation standard.~~

Degree – Credential awarded for ~~the~~ successful completion of an academic program, normally at least two academic years in length.

Diploma – ~~A document issued~~ Credential awarded for successful to evidence completion of/or graduation from an academic program, generally less than two years in length and not providing a degree.

~~**Directed Study** – Directed study is limited to didactic courses within a currently approved program and involves a high level of self-directed learning. Directed study must be under the supervision of a faculty member and a learning contract, signed by the faculty member and the student, must be developed to ensure the course objectives are met. Directed study is the exception and not the rule. The number of courses that a student is allowed to take independently is limited.~~

~~**Discontinued Program** – Any program that has not been in operation for a continuous twelve-month period.~~

Eligibility Requirements- Basic requirements that institutions/programs must meet ~~before~~ for consideration ~~is given~~ by the Commission ~~to an application~~ for accreditation (See Chapter II).

Enrollment – Official registration as a student in a program. For purposes of outcomes reporting, a student must start and complete at least 10 calendar days to be considered enrolled.

Faculty- Qualified ~~I~~ individuals who provide instruction.

Foreign Education Equivalency – Evaluation of a transcript from an institution located of the United States and its territories using an agency which attests to the qualitative and quantitative equivalency of the foreign education and the specific course or courses. The institution must use the credential evaluation services of an agency that has published standards for membership, affiliations to international higher education associations, and are frequently linked to and used by federal agencies, educational institutions and employers (e.g., NACES and AICE). ~~(Note: language from www.ed.gov/international/unsei/edlite_index.html)~~

General Education- Those areas of learning which are deemed to be the common experience of all “educated” persons, including subject matter from the humanities, mathematics, sciences, and the social sciences. Examples of ~~G~~ general E education include, but are not limited to:

Arts, Humanities & Communications - ~~Art, music, history, Literature~~, philosophy, logic, foreign language, ~~art, music appreciation, English, literature, communications, including composition and~~ speech.

~~Mathematics & the Sciences~~ - ~~Biology, chemistry, physics, geology, astronomy, algebra, trigonometry, geometry, calculus and other advanced mathematics courses.~~

Behavioral & Social Sciences - ~~Anthropology, psychology, sociology, History~~, economics, political science, geography, ~~sociology, anthropology, and general psychology.~~

Biological & Physical Sciences - ~~Anatomy and physiology, biology, chemistry, physics, geology, astronomy~~

Mathematics - ~~Algebra, trigonometry, geometry, statistics, calculus~~

No course may be designated as both general education and core in the curriculum.

General education courses directly applicable to the specific occupation are considered applied general education courses (e.g., medication math, psychology for health professionals, and business math). These applied courses satisfy the general education requirement for AOS degree programs.

Graduate eCourses - Courses taught at the master's degree level and identified as such in the course numbering system.

~~**Information Technology** - Method or modes of delivering training, education, or research information via current or new telecommunications technologies, such as television broadcasts, closed circuit television systems, cable television, satellite transmissions, computers and computer based access to external learning resources, videotape, and interactive video disc, audio by disc, tapes or broadcasts, and other such information and telecommunications systems that alone or in combination assist in teaching and learning.~~

~~**Institutional Accreditation** - A grant of accreditation includes all programs that are offered by the institution. Programs are career focused and designed to lead to employment and meet the accrediting body's standards.~~

Institutional Program Effectiveness Plan- An written internal quality assessment tool plan that is used for evaluating each program by designing strategies to improve performance within an institution. outlines a systematic process for evaluation of institutional outcomes.

~~**Institutional Mission** - The educational purpose to which the institution is committed, in terms of which it provides its programs and services.~~

~~**Laboratory**- The facility/classroom in which/where students are actively instructed while practicing skills/procedures presented in theory. Depending upon the content, a hands-on laboratory class may be taught on or off campus, in a simulated laboratory, or by using technologies outlined under the distance education definition in the Glossary.~~

~~**Last day of attendance**- Projects, clinical experience, lecture, or examination completed by a student. Use federal definition~~

~~**Lower Level Course** - Traditionally designated as Freshman and Sophomore level courses (100 or 200 level) found in degree programs and identified as such in the course numbering system.~~

~~**Main Campus** - The main campus of an institution holds the accreditation for all of the locations where education is offered.~~

~~**Objective** - Explication in more specific terms of ideas and activities inherent in the statement of mission and the goals to which an institution aspires.~~

~~**Orientation** - A scheduled time during which students are provided direction on dealing with the many facets of school experiences, including time management, note taking, study techniques, and use of applicable technology as appropriate.~~

~~**Placement** - (1) An active service provided for students in their search for employment and (2) A graduate of a program who is employed in the field or related field of training.~~

~~**Practicum** - see Clinical Experiences.~~

~~**Practitioner** - An individual who is currently or recently directly engaged in a significant manner as a health-care related specialist. Depending on the nature of the practice, this definition may encompass designations such as medical assistant, medical laboratory technician, and surgical technologist.~~

~~**Professional Development** - The process of developing and improving instructor or staff competencies regarding rigorous and relevant content, strategies, and organizational supports that ensure the preparation and career long development of instructors and others whose competence, expectations, and actions influence the teaching and~~

~~learning environment (e.g., attendance at professional seminars, professional organizations, and/or continuing education courses related to courses assigned to teach).~~

~~**Programmatic (Specialized) Accreditation**—A grant of accreditation for a specific program (e.g., Medical Assistant, Medical Laboratory Technician, Surgical Technology).~~

~~**Retention**—(1) A system put in place by an institution which facilitates that students who enter a program, complete it. (2) Housing student records in a safe place that is accessible.~~

~~**Satisfactory Academic Progress**—The progress of students in their educational program toward successful completion of a program of academic study (See Appendix B for requirements).~~

~~**Staff**—The supervisory and ~~n~~Non-instructional personnel employed by an institution.~~

~~**Standards**—(1) General conditions determined to be essential for objectives to be realized. (2) Characteristics or outcomes which state a level of expectation against which institutions or programs can be assessed.~~

~~**Substantive Change**—An alteration in a program's mission, status within the larger academic setting, coordination, curriculum or other areas, that is significant enough to alter compliance with standards or affect the ability of a program to maintain compliance (See Chapter III, Section B).~~

~~**Sustaining Fee**—Money required to be paid to an accrediting agency on an annual basis, generally based on the gross tuition collected by the institution.~~

~~**Syllabus**—A description of how a course will be taught with a planned sequence of content, materials and activities. A course syllabus must reflect the most recent trends, developments, and instructional materials for the specific subject areas. (See Appendix F for requirements).~~

~~**Teach-out Agreement**—A written agreement between institutions that provides for the equitable treatment of students and a reasonable opportunity for students to complete their program of study if an institution, or an institutional location that provides one hundred percent of at least one program offered, ceases to operate before all enrolled students have completed their program of study. legal contract between an ABHES-accredited institutions or program and another institution that will provide the remainder of students' instruction in the event of a voluntary closing or withdrawal of accreditation (see III.A.7.i–ii and the Teach-out Approval Form posted at www.abhes.org/forms for required components). Teach-out agreements submitted to ABHES for approval are unsigned draft agreements. Once the agreement has been approved, an executed draft must be submitted.~~

~~**Teach-out Plan**—A written plan developed by an institution that provides for the equitable treatment of students if an institution, or an institutional location that provides one hundred percent of at least one program, ceases to operate before all students have completed their program of study, and may include, if required by the institution's accrediting agency, a teach-out agreement between institutions. proposed plan to matriculate students in the event the institution or program ceases operation or accreditation is withdrawn (see II.A.7.i and the Teach-out Approval Form posted at www.abhes.org/forms for required components). A school or program may propose a self teach-out plan.~~

~~**Telecommunication**—The use of television, audio, or computer transmission (e.g., open broadcast, closed circuit, cable, microwave, satellite audio conferencing, computer conferencing, video cassettes or discs) to teach.~~

~~**Term**—A block of time during which a course or series of courses takes place (i.e. academic term, semester or quarter).~~

~~**Terminal Degree**—The highest credential earned generally available in an academic or professional discipline. (e.g.~~

~~advanced degrees such as an earned doctorate or a master's degree in some disciplines; a baccalaureate degree in some fields; a 2-year degree in occupational areas).~~

Transcript- The permanent ~~academic~~ (educational) record of a student's ~~achievement~~performance.

Upper Level Course – ~~Traditionally designated as~~ Junior and senior level courses ~~(usually numbered at the 300 and 400 level) found~~ taught in bachelor's degree programs, and graduate level courses (usually numbered at the 500 and 600 level) found in master's degree programs. ~~And identified as such in the~~ course numbering system.

Virtual Library ~~A full text library available to students and staff via computer.~~

Withdrawal- (1) The termination of a student's attendance in class or in all classes before the end of a term. (2) An action by the Commission terminating an institution's accreditation when warranted for non-compliance with requirements ~~(See Chapter III, Section C, Subsection 6).~~