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**TITLE 511 INDIANA STATE BOARD OF  
EDUCATION**

**Proposed Rule**  
LSA Document #03-151

**DIGEST**

Amends 511 IAC 6.1-5.1-9 concerning business technology education and technology education and 511 IAC 6.1-5.1-10.1 concerning vocational-technical courses. Effective 30 days after filing with the secretary of state.

**511 IAC 6.1-5.1-9**  
**511 IAC 6.1-5.1-10.1**

SECTION 1. 511 IAC 6.1-5.1-9 IS AMENDED TO READ AS FOLLOWS:

**511 IAC 6.1-5.1-9 Business technology education; technology education**

**Authority:** IC 20-1-1-6; IC 20-1-1.2-18

**Affected:** IC 20-10.1

Sec. 9. The following courses may be offered in the business technology education and technology education areas of study:

(1) The following business technology education courses:

(A) The following business technology education and economics courses:

- (i) Accounting I.
- (ii) Accounting II.
- (iii) Business foundations.
- (iv) Computer applications.
- (v) Computer applications, advanced.
- (vi) Computer keyboarding/document formatting.
- (vii) Computer programming.
- (viii) Digital communication tools.**
- ~~(viii)~~ **(ix)** Marketing.
- ~~(ix)~~ **(x)** Business mathematics/personal finance.
- ~~(x)~~ **(xi)** Shorthand/notehand.

(B) The following advanced business technology education and economics courses:

- (i) Business, college level.
- (ii) Business and personal law.
- (iii) Business management.
- (iv) Desktop publishing.**
- ~~(iv)~~ **(v)** Entrepreneurship.
- (vi) Financial services and planning.**
- ~~(v)~~ **(vii)** Global economics.
- ~~(vi)~~ **(viii)** International business.
- ~~(vii)~~ **(ix)** Technical/business communication.

(2) The following technology education courses:

(A) The following technology education courses:

- (i) Communication systems (one (1) semester).
- (ii) Construction systems (one (1) semester).
- (iii) Manufacturing systems (one (1) semester).
- (iv) Transportation systems (one (1) semester).
- (v) Communication processes (one (1) or two (2) semesters).

- (vi) Construction processes (one (1) or two (2) semesters).
- (vii) Manufacturing processes (one (1) or two (2) semesters).
- (viii) Transportation processes (one (1) or two (2) semesters).
- (ix) Design processes (one (1) or two (2) semesters).
- (x) Technology enterprises (one (1) semester).
- (xi) Technology and society (one (1) semester).
- (xii) Technology systems (one (1) or two (2) semesters).
- (xiii) Fundamentals of engineering (one (1) semester).
- (xiv) Computers in design and production systems (one (1) or two (2) semesters).

(B) ~~After July 1, 2001~~; Schools involved in Project Lead the Way may substitute the following pre-engineering courses:

- (i) Introduction to engineering design (two (2) semesters) in lieu of design processes.
- (ii) Principles of engineering (two (2) semesters) in lieu of fundamentals of engineering.
- (iii) Computer integrated manufacturing (two (2) semesters) in lieu of computers in design and production systems.

**(C) Schools involved in Project Lead the Way may also offer the following pre-engineering courses:**

- (i) Aerospace technology.**
- (ii) Biotechnology.**
- (iii) Civil engineering and architecture.**

*(Indiana State Board of Education; 511 IAC 6.1-5.1-9; filed Nov 8, 1990, 3:05 p.m.: 14 IR 658; filed Jul 12, 1993, 10:00 a.m.: 16 IR 2853, eff Jul 1, 1993 [IC 4-22-2-36 suspends the effectiveness of a rule document for thirty (30) days after filing with the secretary of state. LSA Document #92-143 was filed Jul 12, 1993.]; filed May 24, 1995, 10:00 a.m.: 18 IR 2409; filed May 28, 1998, 4:57 p.m.: 21 IR 3826; errata filed Aug 17, 1998, 10:21 a.m.: 22 IR 127; filed Dec 2, 2001, 12:22 p.m.: 25 IR 1141)*

SECTION 2. 511 IAC 6.1-5.1-10.1 IS AMENDED TO READ AS FOLLOWS:

#### **511 IAC 6.1-5.1-10.1 Vocational-technical courses**

**Authority:** IC 20-1-1-6; IC 20-1-1.2-18

**Affected:** IC 20-10.1

Sec. 10.1. (a) The following courses may be offered in the vocational-technical area of study:

- (1) The following agricultural science and business courses:
  - (A) Fundamentals of agricultural science and business.
  - (B) The following agricultural business courses:
    - (i) Agribusiness management.
    - (ii) Agricultural mechanization.
    - (iii) Farm management.
    - (iv) Landscape management.
    - (v) Natural resource management.
    - (vi) Supervised agricultural experience.
  - (C) The following agricultural science courses:
    - (i) Animal science.
    - (ii) Food science.
    - (iii) Horticultural science.
    - (iv) Plant and soil science.
- (2) The following business services and technology education courses:
  - (A) Career planning and success skills.
  - (B) The following business services and technology education laboratory courses:
    - (i) Business technology lab I.
    - (ii) Business technology lab II.
    - (iii) Business management and finance.
    - (iv) Computer operations and/or programming.
    - (v) Computerized accounting services.
    - (vi) Information technology network systems.
    - (vii) Information technology information support and services.
    - (viii) Information technology programming and software development.
    - (ix) Information technology interactive media.

- (C) Business cooperative experiences (cooperative/related).
- (3) The following health careers education courses:
  - (A) The following health careers education core courses:
    - (i) Introduction to health care systems.
    - (ii) Integrated health sciences I.
    - (iii) Integrated health sciences II.
    - (iv) Introduction to dental health careers.
  - (B) The following health careers education skill courses:
    - (i) Health careers I.
    - (ii) Health careers II.
    - (iii) Health careers III.
    - (iv) Introduction to medical assisting.
    - (v) Introduction to health care specialties.
    - (vi) Introduction to community health services.
    - (vii) Introduction to pharmacy.
    - (viii) Introduction to physical therapy.
    - (ix) Introduction to health care technology.
    - (x) Introduction to emergency medical services.
    - (xi) Dental assisting I, II, III, and IV.
  - (C) The following health occupations, other courses:
    - (i) Medical terminology.
    - (ii) Anatomy and physiology.
  - (D) Health career practicum (extended lab/related).
- (4) The following one (1) semester family and consumer sciences courses:
  - (A) Orientation to life and careers.
  - (B) Nutrition and wellness.
  - (C) Child development and parenting.
  - (D) Interpersonal relationships.
  - (E) Adult roles and responsibilities.
  - (F) Consumer economics.
  - (G) Chemistry of foods.
  - (H) Advanced foods and nutrition.
  - (I) Advanced child development.
  - (J) Human development and family wellness.
  - (K) Housing and interiors.
  - (L) Textiles and fashion technologies.
  - (M) Family and consumer sciences issues and applications.
- (5) The following one (1) year occupational family and consumer sciences courses:
  - (A) The following early childhood education and services courses:
    - (i) Early childhood education and services I.
    - (ii) Early childhood education and services II.
  - (B) The following apparel and textile occupations courses:
    - (i) Apparel and textile occupations I.
    - (ii) Apparel and textile occupations II.
  - (C) The following food industry occupations courses:
    - (i) Food industry occupations I.
    - (ii) Food industry occupations II.
  - (D) The following housing occupations courses:
    - (i) Housing occupations I.
    - (ii) Housing occupations II.
  - (E) The following residential and institutional facilities and equipment courses:
    - (i) Residential and institutional facilities and equipment I.
    - (ii) Residential and institutional facilities and equipment II.
  - (F) The following human services occupations courses:
    - (i) Human services I.

- (ii) Human services II.
- (G) The following cooperative occupational family and consumer sciences courses:
  - (i) Cooperative occupational family and consumer sciences I.
  - (ii) Cooperative occupational family and consumer sciences II.
- (6) The following trade and industrial education courses:
  - (A) The following air conditioning courses:
    - (i) Cooling and refrigeration.
    - (ii) Heating and air conditioning.
    - (iii) Solar heating and cooling.
  - (B) The following appliance repair courses:
    - (i) Major appliance repair.
    - (ii) Small appliance repair.
  - (C) The following automotive courses:
    - (i) Body and fender repair.
    - (ii) Auto mechanics.
    - (iii) Auto specialization.
  - (D) The following aviation courses:
    - (i) Aircraft maintenance.
    - (ii) Air frame mechanics.
    - (iii) Aircraft mechanics.
    - (iv) Aircraft operations.
    - (v) Ground operations.
  - (E) The following business machine maintenance courses:
    - (i) Business machine maintenance.
    - (ii) Business machine repair.
  - (F) The following commercial art courses:
    - (i) Commercial art.
    - (ii) Interior design.
    - (iii) Product design.
  - (G) Commercial fishery.
  - (H) Commercial photography.
  - (I) The following construction and maintenance courses:
    - (i) Building trades.
    - (ii) Carpentry.
    - (iii) Electricity.
    - (iv) Masonry.
    - (v) Painting and decorating.
    - (vi) Plumbing and pipe fitting.
  - (J) The following custodial service courses:
    - (i) Custodial service.
    - (ii) Building maintenance.
  - (K) Diesel mechanics.
  - (L) The following drafting courses:
    - (i) Architectural.
    - (ii) Civil/structural.
    - (iii) Engineering.
    - (iv) Blueprint reading.
    - (v) Die designer.
    - (vi) Design.
    - (vii) Drafting.
    - (viii) Electrical/electronics.
    - (ix) Mechanical.
  - (M) The following electrical courses:
    - (i) Industrial electrician.
    - (ii) Lineman.

- (iii) Motor repair.
- (N) The following electronics courses:
  - (i) Biomedical.
  - (ii) Communications.
  - (iii) Computer electronics.
  - (iv) Electronic product servicing.
  - (v) Industrial electronics.
  - (vi) Radio/television repair.
  - (vii) Robotics.
- (O) The following fabric maintenance courses:
  - (i) Dry cleaning.
  - (ii) Laundering.
- (P) Foremanship, supervision, and management development.
- (Q) The following graphic arts-printing courses:
  - (i) Graphic arts.
  - (ii) Printing.
- (R) Industrial atomic energy.
- (S) The following instrument maintenance and repair courses:
  - (i) Instrument maintenance and repair.
  - (ii) Watchmaking and repair.
- (T) The following maritime courses:
  - (i) Maritime.
  - (ii) Marine maintenance.
- (U) The following metalworking courses:
  - (i) Foundry.
  - (ii) Machine shop.
  - (iii) Machine tool operation.
  - (iv) Sheet metal.
  - (v) Metal fabrication.
  - (vi) Welding and cutting.
  - (vii) Gas welding.
  - (viii) Electric welding.
  - (ix) Tool and die making.
- (V) Metallurgy.
- (W) The following precision food production courses:
  - (i) Precision food production, general.
  - (ii) Meat cutting.
  - (iii) Slaughtering and butchering.
  - (iv) Precision food production.
- (X) The following personal services courses:
  - (i) Barbering.
  - (ii) Cosmetology.
  - (iii) Electrolysis.
- (Y) Plastics.
- (Z) The following public service courses:
  - (i) Fireman training.
  - (ii) Law enforcement training.
- (AA) Small engine repair.
- (BB) Stationary energy sources.
- (CC) The following textile production and fabrication courses:
  - (i) Textile production and fabrication.
  - (ii) Commercial sewing.
  - (iii) Tailoring.
- (DD) The following leather working courses:
  - (i) Leather working.

- (ii) Shoe repair.
- ~~(EE) Upholstering.~~
- ~~(FF) The following woodworking courses:~~
  - ~~(i) Cabinet making.~~
  - ~~(ii) Millwork.~~
  - ~~(iii) Furniture making.~~
  - ~~(iv) Woodworking, general.~~
- (A) Aerospace engineering technology.**
- (B) Aircraft operations.**
- (C) Appliance technology.**
- (D) Automotive collision repair technology.**
- (E) Automotive services technology.**
- (F) Aviation maintenance technology.**
- (G) Aviation support operations.**
- (H) Biotechnical engineering.**
- (I) Building facilities and management.**
- (J) Building trades technology.**
- (K) Cabinet and furniture manufacturing.**
- (L) Civil-architectural engineering.**
- (M) Commercial art and graphic design.**
- (N) Commercial photography.**
- (O) 3D computer animation and visualization.**
- (P) Computer integrated manufacturing.**
- (Q) Computer network technology.**
- (R) Computer repair and maintenance technology.**
- (S) Cosmetology.**
- (T) Diesel service technology.**
- (U) Digital electronics technology.**
- (V) Drafting and computer aided design (CAD).**
- (W) Electronics technology.**
- (X) Engineering.**
- (Y) Fire science.**
- (Z) Graphic imaging technology.**
- (AA) Heating, ventilation, air conditioning, and refrigeration (HVACR).**
- (BB) Industrial repair and maintenance.**
- (CC) Law enforcement.**
- (DD) Plastics technology.**
- (EE) Precision machine technology.**
- (FF) Recreational and portable power equipment.**
- (GG) Tractor/trailer operation.**
- (HH) Welding technology.**
- ~~(GG)~~ **(II) The following industrial cooperative training courses:**
  - (i) Related instruction.
  - (ii) On-the-job training.
- (7) The following interdisciplinary cooperative education courses:**
  - (A) Related instruction.
  - (B) On-the-job training.
- (8) The following marketing education courses:**
  - (A) The following marketing courses:**
    - (i) Marketing foundations.
    - (ii) Marketing, advanced (related).
  - (B) The following specialized marketing education courses:**
    - (i) Entrepreneurship.
    - (ii) Fashion merchandising.
    - (iii) Financial services marketing.

- (iv) Hospitality, travel, and tourism.
- (v) Marketing seminar.
- (vi) Sports, recreation, and entertainment marketing.
- (vii) Radio-TV broadcasting/telecommunications.
- (C) Marketing field experiences (cooperative).

(b) All of the courses listed in subsection (a) must also meet the requirements of 511 IAC 8.

(c) Schools may qualify their family and consumer sciences programs for vocational status by meeting the following additional requirements:

(1) A minimum offering for vocational family and consumer sciences consists of teaching orientation to life and careers or interpersonal relationships every year and teaching at least four (4) additional courses from the following:

- (A) Nutrition and wellness.
- (B) Interpersonal relationships.
- (C) Child development and parenting or human development and family wellness.
- (D) Adult roles and responsibilities.
- (E) Consumer economics.
- (F) Orientation to life and careers.

This minimum offering must be taught within any consecutive two (2) year time period.

(2) A major in vocational family and consumer sciences education consists of at least six (6) credits, including three (3) of the following:

- (A) Orientation to life and careers.
- (B) Adult roles and responsibilities.
- (C) Nutrition and wellness.
- (D) Child development and parenting or human development and family wellness.
- (E) Interpersonal relationships.

(3) A minor in vocational family and consumer sciences consists of at least four (4) credits from the following:

- (A) Child development and parenting or human development and family wellness.
- (B) Nutrition and wellness.
- (C) Orientation to life and careers.
- (D) Adult roles and responsibilities.
- (E) Consumer economics.
- (F) Interpersonal relationships.

*(Indiana State Board of Education; 511 IAC 6.1-5.1-10.1; filed Jul 12, 1993, 10:00 a.m.: 16 IR 2854, eff Jul 1, 1993 [IC 4-22-2-36 suspends the effectiveness of a rule document for thirty (30) days after filing with the secretary of state. LSA Document #92-143 was filed Jul 12, 1993.]; filed May 28, 1998, 4:57 p.m.: 21 IR 3827; errata filed Aug 17, 1998, 10:21 a.m.: 22 IR 127; filed Dec 2, 2001, 12:22 p.m.: 25 IR 1143)*

### **Notice of Public Hearing**

*Under IC 4-22-2-24, notice is hereby given that on October 2, 2003 at 9:00 a.m., at the Department of Education, 151 West Ohio Street, James Whitcomb Riley Conference Room, Indianapolis, Indiana the Indiana State Board of Education will hold a public hearing on proposed amendments concerning business technology education, technology education, and vocational-technical courses. Copies of these rules are now on file at 229 State House and Legislative Services Agency, One North Capitol, Suite 325, Indianapolis, Indiana and are open for public inspection.*

Suellen Reed  
 Superintendent of Public Instruction  
 Indiana State Board of Education